

This work is licensed under a  
Creative Commons Attribution-NonCommercial-  
NoDerivs 3.0 Licence.

To view a copy of the licence please see:  
<http://creativecommons.org/licenses/by-nc-nd/3.0/>

SUMMARY REPORT OF A WORKSHOP ON  
A FOOD AND NUTRITION STRATEGY FOR KENYA

Organised by the Nutrition Study Group of the  
Institute for Development Studies  
Held at the Institute of Adult Studies, Kikuyu  
15 - 16 May, 1975

prepared by

Sidney B. Westley  
Bruce F. Johnston  
Martin David

Occasional Paper No. 14

Institute for Development Studies  
University of Nairobi  
P.O. Box 30197  
Nairobi, Kenya

1975

SUMMARY REPORT OF A WORKSHOP ON  
A FOOD AND NUTRITION STRATEGY FOR KENYA

CONTENTS

1.	Purpose of the Workshop .. .. .	1
2.	Opening Statement by the Hon. J.J.M. Nyagah, Minister of Agriculture .. .. .	2
3.	Summary of the Plenary Sessions	
	Topic I: Review of Past Experience and Current Views on the Formulation and Implementation of a National Food and Nutrition Strategy .. .. .	5
	Topic II: Analysis of Kenya's Existing Nutrition Programmes and Organisational Arrangements .. .. .	12
	Topic IIIA: Determining Priorities Among Food and Nutrition Policies: A Panel Discussion of the Elements of a Food and Nutrition Strategy for Kenya .. .. .	16
	Topic IIIB: Plans for a Pilot Project for Pre-School Children as an Example of a Priority Measure to Reduce Malnutrition in a Vulnerable Group .. .. .	19
4.	Towards a National Food and Nutrition Strategy for Kenya	
	A. Reports and Recommendations of the Three Working Groups	
	Analysis of Kenya's Existing Nutrition Programmes and Organisational Arrangements, presented by Mr. S.N. Muturi, Chairman for Topic II .. .. .	23
	Elements of a Food and Nutrition Strategy for Kenya, presented by Dr. I. Mann, Chairman for Topic IIIA, Prof. M. David and Prof. I. Livingstone .. .. .	26
	Plans for a Pilot Project for Pre-School Children, presented by Mrs. S. Ngui, Chairman for Topic IIIB .. .. .	29
	B. Summarising Discussion by a Panel, the Workshop Participants and Mr. F.Y.O. Masakharia, Chairman for Topic IV .. .. .	31
5.	Closing Statement by The Hon. Dr. Julia Ojiambo, Assistant Minister of Housing and Social Services .. .. .	33
6.	Appendix 1: The Workshop Programme .. .. .	36
7.	Appendix 2: List of Participants .. .. .	38

## 1. PURPOSE OF THE WORKSHOP

The purpose of this Workshop, sponsored by the Institute for Development Studies' Nutrition Study Group, was to bring together individuals from the planning and operational agencies of the Kenya Government, from the social and medical sciences of the University of Nairobi and from a number of other agencies which are interested and involved in nutrition, in order to consider this important area of social and economic policy. Past experience, the present situation and the principal policy and strategy options were reviewed, and an effort was made to formulate appropriate conclusions and recommendations.

To help achieve these goals, three background documents were prepared and distributed to the participants prior to the Workshop. The first was an advance and unofficial version of "Food and Nutrition Strategies in National Development", an Interdisciplinary Report prepared by the Ninth Session of the Joint F.A.O./W.H.O. Committee of Experts on Nutrition. The second and third were "Analysis of Kenya's Existing Nutrition Programmes and Organisational Arrangements" and "Plans for a Pilot Nutrition Project for Preschool Children as an Example of a Priority Measure towards Eliminating and Preventing Malnutrition in a Vulnerable Group", both prepared by working groups of the Nutrition Study Group.

In the first document three elements were identified which together constitute a national food and nutrition strategy:

First and most fundamental is a strategy for rural development that fosters widespread improvements in productivity and output and which is designed to improve the pattern of income distribution while at the same time achieving the required expansion of food production. The second element consists of measures to influence the combination of foods produced and the processing techniques employed so as to improve the quality of the diet available to all income groups. The third element includes a variety of measures, nutrition-related health activities and nutrition intervention programmes which have a more direct impact on the nutritional status and health of particular segments of the population.

The aim of the Workshop was to make a useful beginning towards determining the optimal balance among these three elements, identifying nutrition policies and programmes which merit priority, and considering the possible organisational arrangements for the formulation and implementation of these nutrition policies and programmes. The different discussions which took place as a means of carrying out this aim are indicated in the Workshop Programme, which is included as Appendix 1 of this Report.

2. OPENING STATEMENT BY THE HON. J.J.M. NYAGAH, E.G.H., M.P.,  
MINISTER FOR AGRICULTURE

Ladies and gentlemen, it is my pleasure and privilege to open this Workshop on a Food and Nutrition Strategy for Kenya. This Workshop is directing its attention to a problem of great importance to the present and the future of our country. The gathering brings together senior officers from various Government Ministries and agencies, and from voluntary agencies concerned with food and nutrition activities in Kenya. I am told that the background papers for the Workshop and the discussions that will take place will take a broad view of the policies and programmes that should constitute a food and nutrition strategy for Kenya.

The Ministry of Agriculture clearly has a strong interest and major responsibilities in relation to efforts to maintain and improve the nutritional status and health of our population. The present policy of expansion of food production to satisfy the requirements of our growing population is of course a necessary condition for progress in eliminating undernutrition and malnutrition which currently exist, and for avoiding the serious health problems that result from inadequate diets. Although an expanded food production programme is an essential condition for success in implementing an effective food and nutrition strategy, it must be supplemented by other policies and programmes. Such policies include measures to improve the economic well-being of the lower income groups; food fortification, distribution and marketing; educational programmes on family planning and family life; changes in dietary habits; preventive and curative health strategies; and direct intervention measures to protect the groups at greater risk.

My Ministry aims at providing means for ensuring that all of the country's farm households are able to increase their productivity, not only to satisfy a substantial part of their family food requirements, but also to have a surplus for sale in order to meet the needs of the growing number of non-farm households dependent on purchased food. The policy of increased sale of farm produce from what was originally termed the subsistence small holder farm sector is important to our farmers because it provides the cash income that enables them to expand their use of farm inputs such as fertilisers and farm equipment that are needed for further increases in

productivity and farm output. In addition, the extra income assists in the financing of non-farm essential foodstuffs, clothing, education and provision of better housing.

In the years since Independence, my Ministry has given strong emphasis to the expansion of the small holder production of tea, coffee, pyrethrum and other export crops. This policy has been necessary because of the need to increase the country's earnings of foreign exchange and at the same time provide a means of increasing cash income for the small holder farm sector. In spite of the deliberate policy of encouraging the growing of cash crops, my Ministry is committed to ensuring the country's self-sufficiency in essential foodstuffs. I can proudly say that this policy has, to a large extent, paid off as evidenced by the increased farm output of maize, wheat, beans and animal products which has resulted in strategic reserves in our national granaries.

The Ministry of Agriculture is fully aware of the need for giving attention to the nutritional quality as well as the commercial value of food crops. An important achievement in that direction has been the widespread adoption of grade cattle among the nation's small scale farmers in areas where environmental conditions are favourable. A major need at the moment is to increase the major sources of protein in our traditional diets. Towards this end, major programmes are under way to increase the protein content of maize, the country's staple food, through breeding. At the same time my Ministry has embarked on a programme of promoting production of beans and other sources of protein in order to assist families in improving the quality of their diet when purchasing power restricts the consumption of milk and other expensive animal protein foods.

Our medium potential areas, commonly known as 'semi-arid areas', are subject to limited and erratic rainfall and frequent food shortages which necessitate direct intervention measures and expensive famine relief operations. In this ecozone there is particular need to intensify research and production programmes in order to ensure more adequate and reliable supplies of food to meet the energy needs of the inhabitants of these areas, as well as their requirements for protein and other essential nutrients. Such a programme must, however, be accompanied by a public awakening on the need for arresting land degradation and conservation of land resources, such as soil, water and vegetation, for the present and the future generations.

3. SUMMARY OF THE PLENARY SESSIONS

Topic I: Review of Past Experience and Current Views on the Formulation and Implementation of a National Food and Nutrition Strategy

The background document for this session was an advance and unofficial version of "Food and Nutrition Strategies in National Development", an Interdisciplinary Report prepared by the Ninth Session of the Joint F.A.O./W.H.O. Committee of Experts on Nutrition. Discussion of the first sub-topic, "A New Approach to Food and Nutrition Planning", was opened with a statement by Prof. B.F. Johnston, one of the co-authors of the F.A.O./W.H.O. Report.

A New Approach to Food and Nutrition Planning, Opening Statement by Prof. Johnston

The justification for opening this Workshop with "A Review of Past Experience and Current Views on the Formulation and Implementation of a National Food and Nutrition Strategy" is our belief that this advance and unofficial interdisciplinary Report prepared by the Joint F.A.O./W.H.O. Committee on Nutrition which was distributed as a background document for this topic represents a useful forward step in advancing our understanding of these complex and important issues. The essential feature of the 'new approach' is to emphasise that the formulation and implementation of an effective food and nutrition strategy should constitute an integral part of a country's efforts to promote national development. This view is influenced first of all by a growing recognition that a basic goal of national development should be to create conditions which enable every individual to have a diet which provides his or her nutritional requirements and thus permits realisation of his or her inherited physical and mental potential and productive capacity.

The second influence which has shaped this new approach is the growing recognition that development strategies that have been concerned simply with raising average per capita incomes do not necessarily lead to widespread improvements in nutritional status and health because of the tendency to by-pass a large fraction of a country's population. The final consideration which needs to be emphasised is that piecemeal progress aimed directly at the

nutritional problems which result from inadequate diets can only make a marginal contribution to the basic problems of widespread malnutrition and poor health. Direct intervention programmes such as nutrition education and supplementary feeding clearly have an important role to play, but such programmes should be viewed as a supplement to, not a substitute for, more fundamental measures aimed at the reduction of poverty and the underlying causes of poor diets.

There is not time to review the reasons why past development strategies have tended to by-pass a large fraction of the population. I would suggest, however, that it is a gross over-simplification to conclude that the reasons have been solely, or even primarily, the result of certain vested interests distorting the pattern of growth so as to reap the lion's share of the benefits. Instead, I would emphasise the positive aspect -- the fact that there is a growing awareness that development strategies can be devised that are effective in simultaneously furthering the goals of rapid economic growth and widespread participation of the population in the benefits of economic growth.

In the few minutes that I have, I want to concentrate on some of the conclusions of the Joint Committee Report that relate to the subject of this Workshop. To that end I want first of all to emphasise the broad scope of a national food and nutrition policy, which should include considerations of food supply, food demand and biological utilisation. In considering the specific policies and programmes that should constitute an effective food and nutrition strategy, it is useful to analyse three distinct though related elements.

The first element is a strategy for rural development which fosters widespread improvements in productivity and output and which is designed to improve the pattern of income distribution while at the same time achieving the required expansion of food production. The second element consists of measures to influence the combination of foods produced and the processing techniques employed so as to improve the quality of the diet available to all segments of the population. The third element includes a variety of measures such as nutrition-related health activities and nutrition intervention programmes, which have a more direct impact on the nutritional status and health of particular segments of the population.



Achieving a proper balance among these three elements is a difficult but critically important aspect of the design of a food and nutrition strategy. In a moment I want to stress some important interrelationships between the various components of a food and nutrition strategy, but it also must be recognised that they are also competitive -- resources allocated to supplementary feeding programmes, for example, are to some extent at the expense of reducing allocations for agricultural research, education, road building, etc.

First of all, I want to stress the great importance for nutritional improvement -- and for other goals of national development -- of an agricultural strategy which achieves the twofold objective of achieving a satisfactory rate of expansion of food production -- diets obviously cannot be improved without a parallel expansion of food supplies -- and also of achieving a pattern of agricultural development that leads to widespread increases in the productivity, incomes and wellbeing of the country's farm households. For reasons that are briefly summarised in the background document, in a country such as Kenya where some 80 per cent of the total population and labour force are still dependent on agriculture for employment and income, this requires a particular type of agricultural strategy. We describe this as a strategy of progressive modernisation because it is aimed at gradually raising the productivity and output of a large and growing fraction of the small-scale farm units that inevitably predominate in an economy in which the bulk of the country's population and workforce are still in the agricultural sector.

Many farm units are small because the families only have access to a limited amount of agricultural land. But there is a more basic constraint which limits the size of the average farm operation in a country with the type of economic structure that prevails in Kenya, as in most developing countries. When the nonfarm population is very small relative to the large number of farm households, the cash income of the average farm unit is bound to be small. And this limits the extent to which Kenya's farmers can increase their productivity by using the huge amounts of purchased inputs -- fertilisers, tractors, combine harvesters, etc. -- that are largely responsible for the high levels of agricultural productivity which have been achieved in the developed countries of Western Europe and North America. Fortunately, in the years since Independence, many of Kenya's farmers have been able to rapidly expand their cash incomes by increased production of coffee, tea, pyrethrum and other export crops so that the

rate of increase in farm cash incomes has been much more rapid than would have been possible if the rate of increase in commercial production had been limited to expanded production of maize and other products purchased by domestic consumers. Yet the growth of agriculture in Kenya has not been as rapid or as widespread as we might have hoped, or as rapid as it can and should be.

In conclusion, I want to say just a few words about the other two elements of a food and nutrition strategy. First a word about measures to influence the nutritional adequacy of the national food supply and diet. A distinction can usefully be made between measures which affect the supply of food available and those addressed to the improvement of diets, that is the pattern of food consumed by individuals. Thus an important goal of nutrition planning is to ensure that everyone understands what constitutes a nutritionally adequate diet, whereas a major goal of food planning is to assure an adequate supply of nutritious food. Obviously, those planning efforts must be integrated. Diets cannot be improved if demand for essential foodstuffs outstrips the supply available, leading to sharp increases in food prices. But similarly, supplies will not increase unless purchasing power and the composition of consumer demand ensures that there is a market and remunerative prices for the expanded production. Improved income distribution is especially important in ensuring effective demand for the relatively inexpensive staple foods such as maize, beans, sukumawiki and other nutritious vegetables that are the mainstay of an adequate diet for the great majority of the population. But at the moment it is awkward to speak of beans or other legumes as inexpensive sources of good quality protein because their prices have risen so substantially. This is, of course, an important example of the need to orient research and extension programmes so that they can contribute to the achievement of nutritional goals as well as the more general objective of increasing agricultural productivity and incomes.

I shall limit myself to just a few words about nutrition-related health measures and certain direct measures for nutritional improvement. The great appeal of measures of direct nutritional intervention is that they can and should be aimed at groups experiencing especially serious nutritional problems so that the potential benefits can be large; and they do not depend on the necessarily slow process of

socio-economic development. They include supplementary feeding programmes, food fortification measures, measures to promote the use of nutritious weaning foods, either locally available ingredients prepared in the home, commercially produced cereal-legume mixtures or perhaps convenient packages of dehydrated skim milk to be added to uji, to increase the quantity and quality of protein in the diet of infants and small children. Nutrition education is another direct measure of fundamental importance already mentioned. Finally, there is some evidence that seems to suggest that immunisation programmes against measles and other infectious diseases and eradication of worms and other parasites that rob the child of nutrients may sometimes have advantages over a supplementary feeding programme, for example, in terms of cost-effectiveness.

Finally, there is considerable evidence which indicates that reduced infant mortality and improved nutrition and health are likely to increase receptivity to the idea that family size should be determined by conscious choice. More generally, the rising aspirations among the rural population that result from broad participation in economic and technical progress and from improvements in nutrition and health seem likely to create a relatively favourable climate for successful family planning programmes.

The Formulation and Implementation of Food and Nutrition Strategies,  
Opening Statement by Mr. L.E. Ngugi

Following Professor Johnston's statement on the three elements of a food and nutrition strategy, Mr. Ngugi addressed himself to the specific problem of setting up an institutional unit within the Kenya Government which will be responsible for national food and nutrition policy. Such a unit should be able to formulate a comprehensive policy, rather than merely setting up uncoordinated, piecemeal programmes or calling for special funds, which might well be unavailable on short notice, after emergencies have already occur .

This nutrition policy-making unit would need information about nutritional needs in Kenya and the present situation, and for this reason it should be provided with facilities for collecting data as well as for bringing together all the relevant data which have already been collected by different researchers, organisations and Government agencies. Secondly, the nutrition unit would need trained personnel including experts in the different fields which are relevant to a truly comprehensive food and nutrition strategy, and thirdly, the unit would need adequate financial support from the Ministry of Finance and Planning. Lastly, Mr. Ngugi suggested that the food and nutrition unit should have sufficient influence over all the relevant Ministries to insure that they effectively implement the food and nutrition policies and programmes which are planned.

#### Ensuing Discussion

The coordination of activities related to nutrition on both the local and national level would be facilitated by the formulation of a clear, concrete and comprehensive national policy, which does not exist at present. According to the 1974-78 Development Plan, for example, a nutrition coordinating unit is called for within the Ministry of Health, but overall responsibility for nutrition is given to the Ministry of Housing and Social Services. This lack of coordination exists because each chapter of the Plan is written by a different group, but modifications and changes in the Plan can be made and a unit with more comprehensive responsibilities for food and nutrition planning and coordination could be set up without being specifically mentioned in the Plan.

This unit could be part of the Ministry of Finance and Planning, in which case it would act primarily as a technical advisory body with policy decisions being taken by a high-level interministerial committee. A small nutrition research institute might also be set up outside the Government. One possible disadvantage of locating the nutrition planning unit within the Ministry of Finance and Planning would be that the other Ministries might be led to feel that nutrition planning and implementation was not primarily their responsibility and they might become less active in the field of nutrition.

But on the other hand, there would be serious disadvantages if the food and nutrition planning unit is set up independently of the Ministries, including a considerable time lag before it could become fully operational. In any case, it is important that each Ministry whose activities touch on the field of nutrition have its own nutrition planning unit.

At the local level, field workers often do not coordinate their activities or cooperate, even with other workers from the same Ministry. This situation could be improved by instituting common nutrition training courses for local field workers of the various Ministries with responsibilities in the nutrition field. It is also hoped that the new approach to planning through the District Development Committees will help coordinate the activities of different Government Ministries on the local level in nutrition as well as in other fields.

A number of specific suggestions were made which should be considered in formulating a national food and nutrition strategy. For one thing, nutrition policies must take into account the various needs and potentials of Kenya's vastly different ecological zones. Particular attention should be paid to the semi-arid 'medium potential' areas. Another suggestion was that research on nutrition in Kenya could be increased if Government more actively specifies topics to be studied by researchers coming from overseas, directing them towards practical, important problems. Kenyan University students might also help to hunt out the plentiful data which have already been collected on the subject of nutrition in Kenya.

The Ministry of Education should be closely involved in the implementation of nutrition policy, because, in addition to the nutrition education programmes operating in the community, nutrition education should be an important component of the curriculum at every level of formal schooling. The Ministry of Commerce and Industry should also be involved in a national nutrition strategy by ensuring that processing techniques do not destroy the nutritional value of foods, that the food distribution system effectively reaches every part of the population, that the contents of processed foods are clearly indicated on the outside of packages, and that advertising of food products is monitored to make sure that the public is not misled.

Topic II: Analysis of Kenya's Existing Nutrition Programmes and Organisational Arrangements

The background document for this portion of the discussion was a paper prepared by a sub-group of the I.D.S. Nutrition Study Group and introduced by Mrs. Hesselmark.

Summary of Background Paper

Direct measures to improve nutrition can be divided into three categories:

1. Direct intervention programmes, which in Kenya have been mainly feeding programmes,
2. Public education programmes, and
3. Training programmes.

Feeding Programmes: The largest direct intervention activities are the school feeding programmes, administered by the National School Feeding Council, the Catholic Relief Service and Nairobi City Council and reaching 80,000 to 90,000 school children. All of these programmes charge fees. The food served by the Catholic Relief Service is mainly imported, while that served by the other two agencies is of local origin.

The Catholic Relief Service, through its Preschool Health Programme which operates at Mother and Child Centres, clinics and hospitals, provides heavily subsidised food for infants and young children together with nutrition education for the mothers. The Ministry of Health sponsors curative programmes in the hospitals for marasmus and kwashiorkor victims who are mostly young children. The Ministry of Housing and Social Services has also recently started a feeding programme for young children in day, remote areas. The Ministry of Housing and Social Services runs five Family Life Training Centres where 200 mothers with young children will be able to attend a three-week course each year.

Famine relief is provided mainly by the Office of the President, but also by a number of non-governmental agencies.

It is noteworthy that, although doctors and nutritionists agree that infants and small children are the group most vulnerable to nutritional deficiencies, well over half of the target group of existing feeding programmes in Kenya are school children.

Education Programmes: Nutrition education is the most common nutrition activity among the Ministries and agencies surveyed, with most activities directed towards mothers of young children and other women in the rural areas. The largest programmes are sponsored by the Ministry of Health with 10 nutritionists and 132 nutrition field workers, and the Ministry of Agriculture with 71 home economics officers and a considerably larger number of home economics assistants and junior home economics assistants. The 132 hospitals in Kenya are fairly well covered with nutrition workers from the Ministry of Health, but only about one quarter of the country's health centres have a nutrition field worker, and the health sub-centres and dispensaries have virtually no staff trained to provide nutrition services. The Ministry of Agriculture's home economics field workers carry out much of their work at Farmers' Training Centres, though some also work with women's groups and individual families. The largest non-governmental programme is run by the Catholic Relief Service which combines nutrition education with its preschool feeding programme and reached 37,000 mothers in 1973/74.

Most education programmes cater only for the people who come to them, rather than actively searching out seriously or moderately malnourished infants or small children where the need for nutrition education is especially great. A stronger emphasis on outreach has been hampered by lack of staff and lack of transport, which could be minimised by sharing vehicles through joint planning of nutrition activities by the different agencies involved. Although the programmes mentioned here are aimed at mothers with small children, nutrition education needs to be directed at other segments of the population as well, and this is being done by a number of other programmes.

Training Programmes: There are at least 20 different training institutions where nutrition is part of the curriculum, a few where the main emphasis is on nutrition and a larger number in which nutrition is part of the training provided. Although exact figures on the number of trainees have not been collected, it is probably safe to say that there is a large cadre of

professionals and sub-professionals in the country with nutrition training.

Geographical Coverage: Neither the Ministry of Agriculture nor the Ministry of Health have nutrition workers in all districts. Coverage is best in Central Province, parts of Rift Valley along the main Nairobi-Kisumu road, parts of Western Province and parts of Embu, Meru and Machakos areas. Coast Province and Kakamega District have fewer services than their relatively dense populations would warrant, and Northern Kenya is more or less left out altogether.

Coordination: The effectiveness of individual nutrition programmes is diminished by lack of information on the activities and experiences of other programmes, and in some instances the policies of different programmes are actually mutually contradictory. There are a number of groups which are actively concerned with nutrition on the national level, such as the Kenya Freedom from Hunger Council's Nutrition Committee, the I.D.S. Nutrition Study Group and the Advisory Nutrition Group within the Faculty of Medicine of the University of Nairobi, but none of these groups is in a position to coordinate nutrition activities throughout the country.

The Women's Groups Programme, which is concerned with nutrition and other aspects of improved family life, is unique as an interministerial activity, coordinated by the Department of Social Services, but planned jointly with all the other relevant ministries.

Conclusions: Although an impressive amount of work is being done to alleviate hunger and malnutrition, it is apparent that a large part of the country's population is not yet served by nutrition programmes of any kind. The information available on present programmes leads to a number of questions:

- How can the nutrition-related activities of Government and non-governmental agencies be better coordinated at the national, provincial, district and local levels?
- Which target groups should receive priority attention?
- Which foodstuffs should be used in feeding programmes and what should be the relative emphasis on local vs. imported foods?
- To what extent can the activities of non-governmental agencies be coordinated without jeopardising their outside sources of support?



- What criteria should guide the decision to initiate specific programmes and how can geographic coverage be made more even?

#### Discussion

Although it is widely agreed that the primary victims of mal- and undernutrition are infants and small children, the largest group reached by feeding programmes in Kenya is children in school. This may be partly because school feeding programmes are easy to administer, but it was suggested that proper administration of preschool feeding programmes has also been carried out through surveillance and periodic measurement of the children. School feeding programmes should not be discontinued. However, priority in the use of scarce Government funds should be given to expanding programmes aimed at children in the most vulnerable age group - 6 to 36 months. The National School Feeding Council has sponsored a preschool feeding programme for the last four years which now reaches 4,500 children. It was also suggested that instead of feeding programmes for any particular age group, a nutritious balanced food for children be developed which could be heavily advertised, widely distributed, and sold at a very low subsidised price.

Nutrition education could be stepped up at a very low additional cost by including information on nutrition in all the different programmes which already exist and are designed to reach different parts of the population. In particular, nutrition education could be incorporated into all the existing programmes which reach Kenyan mothers, and material on nutrition should be included in the curricula of formal schools and in the instructional material for the national literacy campaign.

The present geographic distribution of nutrition programmes stems partly from the fact that non-governmental programmes have been financed in part by local people, so that communities where there is an active Harambee movement and greater resources tend to have more numerous nutrition programmes. Programmes financed entirely by the central Government can be placed in other geographic areas in order to counteract this trend. However, there are special difficulties in planning and implementing nutrition programmes for nomadic communities, where under- and malnutrition may be very serious problems. A fairly clear-cut criterion which can be used for determining where to locate nutrition programmes is the number of patients in each area who are admitted to hospital with kwashiokor.

Although there are a large number of professional and sub-professional workers trained in nutrition, short field-level seminars could usefully be held to disseminate basic information on nutrition to a wide variety of Government field workers.

Topic IIIA: Determining Priorities Among Food and Nutrition Policies and Programmes: Elements of a Food and Nutrition Strategy for Kenya

This topic was the subject of a panel discussion led by Dr. Mann of the Kenya Freedom from Hunger Campaign. Panel members were Mr. Muturi of the Ministry of Agriculture, Mrs. Ngui of the Ministry of Health, Mr. Otieno of the Ministry of Finance and Planning, Dr. Forbes of the Department of Community Health, University of Nairobi, and Dr. Schonherr of the Institute for Development Studies. Other Workshop participants also joined in the discussion.

A food and nutrition strategy for Kenya should include considerations of rural development and food production, of food processing, storage and marketing, of the composition of the diet of different population groups and of specific health and nutrition intervention measures. The focus of a food and nutrition strategy should be on people in rural areas where the annual cash income is often \$20 or less, but attention must also be paid to urban dwellers who may tend to buy expensive, highly-processed foods which do not provide a well-balanced, nutritious diet. The emphasis in all these considerations should be on the prevention of nutritional deficiencies, since the medical treatment of individuals who already suffer from malnutrition or undernutrition is too costly to be made available to large segments of the population on a continuing basis. Moreover by the time nutritional deficiencies are recognised as acute, treatment may well not be successful. The population as a whole can only be assured an adequate diet through such preventive measures as increased food production, the generation of income among poorer groups and control of population growth.

The first consideration of a food and nutrition strategy is to increase food production by means of broad participation in rural development which also leads to a wide distribution of farm incomes. In the agricultural sector prior to Independence, the research, marketing and other needs of large-scale cash-crop farms were given priority, but now the needs of small-scale farmers who grow both subsistence and cash crops are receiving the greatest attention. Another shift of emphasis which is called for is increased attention to semi-arid and arid regions. In deciding regional priorities for agricultural projects, a narrow reliance on cost/benefit criteria will lead to the neglect of these lower potential areas. For this reason it is important that welfare criteria,

including nutrition considerations, be taken into account.

People in the high potential regions have been able to exert strong political pressure which has attracted agricultural projects to their areas. However, programmes which include both livestock and crop production are needed in the medium potential zones to provide the inhabitants with a reliable food supply. In arid regions, only livestock programmes are feasible except if irrigation is used.

One further agricultural problem is the concentration on maize production and the over-dependence on maize as the mainstay of the national diet. The quantity and quality of protein available in maize is inadequate, and failure of the maize crop leads to famine. For these reasons, greater stress must be placed on the production of beans and other legume crops.

In addition to achieving satisfactory levels of food production, adequate processing, storage and marketing of foods must be assured. This will enhance the income of poor farmers as well as assuring the availability to consumers of appropriate combinations of foods necessary for an adequate diet. At present, ten to fifteen per cent of the grain harvested in Kenya is lost during storage, and local methods used for smoking and salting fish are not always effective so that protein-rich food supplies are sometimes spoiled before they can be consumed. Better techniques for drying and salting fish and facilities for cold storage and rapid transport are needed so that fish, meat and vegetables can reach the consumers in a satisfactory condition. Simple, inexpensive techniques for home vegetable dehydration need to be developed so that excess food produced in times of plenty can be stored for later consumption without nutritional loss. Finally, in order to facilitate the distribution of food, present restrictions on transporting produce need to be reexamined.

A further food processing and distribution problem is that nutritious food which does not meet export quality specifications is sometimes simply thrown away by the export-oriented food processing industry. This food should be directed to local consumption, particularly to the arid regions where hunger is often widespread.

Milk is a valuable source of protein which is often too expensive for low-income families because of the cost of processing and transport. A simple solution would be to encourage the sale of milk in rural areas

directly from the farmer to the consumer. The milk should then be boiled before drinking. Dried skim milk is also a potentially inexpensive source of protein, but more skim milk needs to be dried and distributed more widely to low-income consumers. The consumption of sheep's and goat's milk should be encouraged, as well as increased production and consumption of poultry and eggs.

Assuming that food production and distribution are adequate, consumers still need to be encouraged to select a combination of foods which will provide a well-balanced, nutritious diet. One way in which this can be done is through Government pricing policies. The present system of prices enforced by statutory boards needs to be reconsidered. High prices for specific foods discourage consumption, but when prices are set too low this can discourage production so that consumption also eventually falls, as has been the case recently with beans where prices were set low, production dropped and beans became scarce in the markets. Optimal prices for each food product subject to Government control must be set with great care.

Another means by which Government can influence the eating habits of the population is through taxation. In the past, taxes have been used to discourage the consumption of imported foods, but this technique could be applied more widely. For example, a tax on sugar would raise the selling price of this food, which has no nutritional value except in providing calories, and thus discourage consumption.

The dissemination of information on nutrition is another important way in which Government can influence people's eating habits. Formal schools, extension programmes and non-formal education activities should all include nutrition information in their curricula so that nutrition myths can be identified and buried. In addition, commercial advertising should be monitored to prevent the spread of false and misleading information about food.

Nutrition-related health activities include the hospital treatment of kwashiokor, where the mortality rate has remained twenty to thirty per cent for years. This treatment is extremely expensive, especially considering the limited success obtained. In addition, other diseases which require

treatment may often be brought about in part by undernutrition. Direct feeding programmes, aimed at particularly vulnerable population groups such as small children and pregnant and lactating women, including early identification of individuals at risk, should be less expensive and more effective than the hospital treatment of extreme cases.

Finally, continuous research into nutritional needs and problems should be an important aspect of any national food and nutrition strategy. A number of specific questions need to be investigated, such as whether some population groups cannot digest certain varieties of beans and whether cultural taboos still influence food consumption patterns among different groups. More generally, nutritional surveillance needs to be undertaken on a continuous and coordinated basis, geared to varying regional and local needs and emphasising particularly the nutritional status of young children.

Topic IIIB: Plans for a Pilot Nutrition Project for Pre-school Children as an Example of a Priority Measure to Reduce Malnutrition in a Vulnerable Group

The background document for this portion of the discussion was prepared by a sub-group of the Nutrition Study Group. The discussion was opened by Dr. Blankhart of the Medical Research Centre and led by Mrs. Ngui of the Ministry of Health. A summary of the background paper is presented here.

Summary of the Background Paper

The findings of the Nutrition Study Group indicate that feeding programmes in Kenya should concentrate primarily on infants and young children, especially children up to three years of age. The reason for this is that nutrition surveys and other measures of nutritional status indicate that low weight and severe malnutrition are both much more prevalent among infants and small children than among older children or other age groups. Furthermore, severe and prolonged malnutrition at this early age may result in retarded physical and mental development which cannot be reversed or modified by feeding programmes at school age.

Present nutrition activities in Kenya which reach infants and young children focus on curative or preventative measures. Curative measures involve the rehabilitation of a malnourished and often sick child, and

preventative measures involve nutrition education, sometimes combined with temporary feeding. Both types of services are based in hospitals, clinics or other centres, and there is little searching for cases or visiting the children in their homes. This means that the malnourished children most at risk are often not reached, because their families do not realise that they are malnourished or lack the motivation or means of transport to take the children to a hospital or health centre.

Another problem is that present programmes involving nutrition education and/or feeding are not sufficiently coordinated at the national or the local level. Different programmes are sponsored by the Ministries of Health, Agriculture, Housing and Social Services, as well as by a number of non-governmental organisations.

Because of the inadequacy of present programmes, it is proposed to carry out a pilot project in selected areas aimed at improving the nutrition and health of seriously or moderately malnourished young children by means of an integrated and more active approach, making use of manpower and other resources available in the local community. This pilot project would involve a quick survey of the ecology, the nutritional status and the weaning practises of each selected community; an inventory of present nutrition programmes aimed at young children; the introduction of case finding, reporting and rehabilitation in the children's homes by local workers under the guidance of Government health workers; and an analysis of the cost-effectiveness of this new technique compared with other methods for alleviating infant and early childhood malnutrition.

The locations for the pilot project should be selected from the sorts of areas where it has been shown that children under five are most at risk, taking into consideration the presence or absence of other nutrition activities. Areas where young children are likely to suffer from nutritional deficiencies are:

1. Mono-cash-crop areas with landless labourers,
2. Poor isolated areas with marginal subsistence farming,
3. Semi-arid and arid regions,
4. Poor urban areas, and
5. Densely populated areas with unequal land distribution.

The procedure for finding and treating malnourished infants and young children should include the following considerations:

1. Who will search for the seriously and moderately malnourished children? The roles of the many different Government workers who are involved in nutrition programmes need to be specified and coordinated.
2. What criteria for the identification of malnourished children are simple and inexpensive to apply, yet at the same time sufficiently accurate? Weight, height and arm circumference are all useful measurements.
3. How are different members of the community to be involved? Assistant chiefs and other community members could report potential cases to health workers, and selected local people could be trained to carry out case-finding, reporting and rehabilitation in the children's homes.
4. What procedures will be most effective for rehabilitating malnourished children? These may include hospital treatment for severe cases, rehabilitation in the home assisted by a trained member of the local community, and education of the parents concerning the special nutritional needs of infants and small children and the preparation of well-balanced diets made up of low-cost locally available foods.
5. What follow-up procedures will effectively monitor the children's progress? Charts should be kept of the children's measurements and weight, and recovery should be discernible within three months.

#### Discussion

Nutrition education and assistance should be incorporated into the activities of all clinics and health centres. About 80 children visit a typical health centre every day, and of these probably about 10 per cent are undernourished. At present, the centres are set up only to keep records and

dispense medicines, so that the nurse may not give a mother advice on nutrition, even when a child has been identified as undernourished. Community nurses and other health personnel should be given basic training in nutrition so that nutrition education, along with supplementary feeding when necessary, can be provided to all mothers and children who visit health centres.

This would only be a beginning, however, because at present there is approximately one community nurse for a population of 10,000 so that many children at risk cannot be reached through clinics and health centres. Neither are there enough trained Government workers to look for and visit undernourished children in their homes. For this reason, the entire local community should be involved in nutritional surveillance and case finding. Community members can also help follow up individual cases to make sure that food which is given to families for certain undernourished children actually reaches those children. In this way, the bulk of the manpower and financial requirements of the project could be provided locally so that hopefully, it could be widely replicated. Also this approach could have an important educational effect on the community as a whole. It is important that the feeding project for infants and young children should not be considered in isolation, but that all the different aspects necessary for a full community health and nutrition programme be taken into account and coordinated.

Nutrition deficiencies can occur when cash crops are introduced into an area, so planners must make certain that sufficient land is set aside for growing food. If this is not done, sufficient food may not be available in a cash crop area, even though farmers have money to buy it. Also, when farm families shift from food crops for home consumption to cash crops, men gain greater control of the family's resources in the form of cash earnings, whereas before women had greater control of the resources in the form of food. This may lead to a situation in which less of the family resources are devoted to the basic nutritional needs of the children than when primarily subsistence food crops were grown.

After a brief discussion period, Dr. Blankhart showed slides of a pilot project involving case finding and supplementary feeding for infants and small children, which he is carrying out in the Machakos area. Government health workers and members of the community visit the undernourished children and their mothers in their homes, provide supplementary food and instruct the mothers in its preparation, weigh and measure the children, and keep charts showing the responses to treatment.



4. TOWARDS A NATIONAL FOOD AND NUTRITION STRATEGY FOR KENYA

A. Reports and Recommendations of the Three Working Groups

Analysis of Kenya's Existing Nutrition Programmes and Organisational Arrangements, presented by Mr. S.N. Muturi, Chairman for Topic II

The background paper reviewing the existing nutritional programmes and arrangements raised a number of crucial issues. The uneven, and sometimes arbitrary, coverage of nutritional programmes was very evident from this review. The geographical distribution of these programmes, and even the distribution within the areas that they are designed to cover, frequently appears to bear no relation to nutritional or equity criteria. In particular, the absence of appropriate criteria for the distribution of feeding programmes was noted. The principal basis for the current distribution of these programmes appears to be:

- (1) The existence of groups and institutions that exert pressure for the establishment of the programmes. These pressure groups tend to be most active in the areas which have achieved the most rapid economic and social progress, while many areas which have serious nutritional problems have received relatively little attention,
- (2) Availability of staff to carry out the various programmes,
- (3) The ability of parents to pay the required fees for participation in the programme,
- (4) The distribution of schools, day care centres and missions.

The overall effect of the current distribution criteria for food and nutrition programmes appears to be that the programmes have largely gone to those areas that are better off and have frequently by-passed those areas with the greatest need. The heavy concentration of programmes in such areas as Central Province can be regarded as an indication of the response of these programmes to local pressure. The implementation of the feeding programmes by religious and other voluntary agencies is a clear example of the requirement for local organisational capacity which is necessary before such programmes

can be made operational. The fact that participation in the school feeding programme requires participants to pay a fee before they can be enrolled is a case where a feeding programme is available to those who are better off. It appears that those who are worse off, even within the schools where the programme exists, cannot afford to pay and therefore frequently do not have access to the food. Nutritional education programmes such as the home economics extension programme also appear to be distributed more heavily in high potential areas rather than in poorer areas.

#### Recommendations

It was recommended that an important criterion for the distribution of different programmes should be the incidence of marasmus and kwashiorkor. Data should therefore be provided by the Ministry of Health to assist in the identification of geographic areas where nutritional deficiencies are most widespread. It was recognised that the data available on these problems are uneven and that there is a danger of developing programmes where these data are available and ignoring areas where the incidence of malnutrition may be very high but no data exist.

The second criterion should be the availability of food, with particular emphasis on those areas where chronic seasonal shortages occur. Once problems and problem areas are identified this information should be analysed and passed to the relevant Ministries, which would include the Ministry of Agriculture, Ministry of Health, Ministry of Housing and Social Services and the Ministry of Education, so that resources could be put into the longer term solution of these problems.

#### Organisational Arrangements and Coordination

It was observed that owing to lack of criteria for selection of areas and target groups there was a duplication of effort among existing programmes. Therefore, better coordination of the existing programmes at various levels is called for.

##### 1. National Level

The working group endorsed the concept of establishing a planning unit to carry out the following functions:

- (a) Collect available information from various operating Ministries and agencies;

- (b) Evaluate such information and work out inter-ministerial relationships and advise on desirable changes; and
- (c) Provide such analysis and recommendations to operating ministries for inclusion in their development programmes.

## 2. Provincial and Local Levels

The working group recommended that developmental programmes be translated to field operations at the provincial, district and down-to-the-village level. Food and nutrition planning, including identification of particular problem areas, should become an explicit mandate of provincial and district planning units so that the coordination of activities takes place at the local level as well as the national level.

### Long-Term Strategy

The group noted the success of the Ministry of Agriculture's policy to promote cash incomes, but the inadequate attention to welfare and nutritional considerations in rural development programmes. A clear-cut food and nutritional policy should be an integral part of the effort to raise production, aggregate income and the wellbeing of the population in the country.

Government strategy should take account of the useful contributions made by non-governmental organisations.

Elements of a Food and Nutrition Strategy for Kenya, Presented  
by Dr. I Mann, Chairman for Topic IIIA, Prof. M. David and  
Prof. I. Livingstone

In dealing with this very broad topic, the working group found it useful to distinguish the three elements of a food and nutrition strategy described in the F.A.O./W.H.O. Report:

1. Rural development which fosters widespread increases in food production and improvement in the pattern of income distribution;
2. Dietary improvement brought about by attention to the combination of foods produced and processing techniques; and
3. Direct nutrition- and health-related intervention activities.

Before discussing these three elements in reference to conditions in Kenya, a few general points should be made. First, it should be kept in mind that the long-term objective must be the prevention of malnutrition and undernutrition which will be achieved through rural development. Resources consumed in alleviating symptoms will be required in perpetuity if the underlying rural development problems are not solved. Second, the approaches adopted to improve nutrition must be flexible to fit the heterogeneous geographical, agricultural, economic and social conditions prevailing in different areas. Third, adequate nutrition cannot be achieved by focussing attention on a small 'modern' sector, but rather every household and food-producing unit must be included. Last, it is extremely important that a nutritional strategy be coordinated on both the national and local level. The need for some sort of Government framework is felt particularly strongly by voluntary organisations active in the field of nutrition. At the national level, this involves the formation of a nutrition policy-making body, and at the local level coordination can be facilitated by District Development Planning and by common in-service training in nutrition for all Government workers and local volunteers.

Rural Development: A broad-based policy of rural development designed to improve the nutritional status of the entire population depends on an integrated plan with the following elements:

1. Planning and implementation for rural development must include social and nutritional objectives. A minimum adequate diet must be the goal of widespread increases in output.

2. Increases in output can be achieved through the application of technologies and inputs which raise the productivity of labour and land.

3. Output must be increased beyond the amount required to meet the increasing consumption needs of a growing population; in addition, recognition of the benefits of progressive modernisation should be a positive force in limiting population growth.

4. Limited foreign exchange and expensive inputs must be used effectively, and any unnecessary use of capital-intensive technology should be resisted.

5. High-yielding and nutritionally balanced crops should be encouraged, with attention paid to varieties which will provide a sufficient diet under adverse conditions of disease and erratic rainfall.

6. Development should include a component directed at maintaining the productivity of the soil using local resources such as compost and manure as well as chemical fertilisers and other purchased inputs.

7. A deliberate effort should be made to encourage the development of medium and low potential areas.

A number of specific issues were also identified which should receive attention as part of a nutrition-oriented rural development strategy:

1. Simple, inexpensive, yet effective techniques for processing and storing food must be developed and disseminated.

2. An appropriate price policy for food crops must be devised. Food prices must be high enough to provide a sufficient incentive to farmers but not so high as to make an adequate diet out of the reach of low income families.

3. Optimal ratios of cash to food crops must be found for each ecological region, taking into account present and expected world markets, regular seasonal depletions in local food supplies and the occasional failure of crops due to drought, flooding and disease. Special attention should be given to measures which will protect the smallholder against the risks of such events.

4. The effective utilisation of land should be encouraged, perhaps through a progressive tax on land holdings over a certain size.

5. The milk industry needs to be carefully studied, particularly in regard to its pricing structure.

6. Statutory bodies should not pursue strictly commercial considerations, including exports, to the neglect of optimal local development and welfare.

Dietary Improvement: In agricultural production, increased attention should be paid to vegetable crops which are high in protein, such as legumes and oilseeds, and to milk production.

Efforts should also be made to reduce current high losses due to poor storage, transport and methods of preservation, especially for perishables such as meat, fish and vegetables. Tinning vegetables is an expensive process, but the use of simple domestic driers should be explored for dehydrating vegetables which can then be used in times of seasonal shortage or supplied to arid parts of the country.

Milk is a highly nutritious food which could be distributed more widely, especially to low-income groups. The development of local milk sales direct from the farmer and boiled before use would save transport and marketing costs which put processed milk out of reach of the lowest-income consumers. Also, a larger proportion of seasonally excess milk could be converted into dried skim milk and distributed to low-income groups more effectively.

Direct Intervention: Measures to improve community health and control debilitating diseases such as diarrhea and intestinal parasites will improve the utilisation of nutrients in the diet. Deliberate intervention is called for to improve water supplies and sanitation, especially in dry areas, and to inoculate the population against different diseases.

Feeding programmes, especially among high-risk groups such as infants and young children, are necessary as short-term measures, but it should be kept in mind that the long-run expansion of the food supply and a broad distribution of income are the only lasting means for preventing malnutrition. In particular,

no programme of nutritional intervention will be effective in the long-term unless men and women can be persuaded to limit the size of their families and provided with the means to do so. Finally, in considering direct feeding programmes, planners and administrators should keep in mind the distinction between acute malnutrition and hunger.

Education programmes in nutrition are one of the most important means of directly affecting the nutritional status of the population. Nutrition education should be incorporated into direct feeding programmes and into the formal school curricula, as well as into other education activities in the local communities. To achieve this, the training of all Government workers in the local areas must be coordinated and must include information on nutrition. Although mothers are a natural target for nutrition education, attention should be directed toward men as well because their attitudes are also important.

Finally, Government should counteract the effects of misleading advertising by actively disseminating accurate information on nutrition through the mass media.

Plans for a Pilot Project for Preschool Children as an Example of a Priority Measure to Reduce Malnutrition Among a Vulnerable Group, presented by Mrs. Susan Ngui, Chairman for Topic IIIB

The discussions of this working group focussed on a review of the paper that served as a background document for the above topic and problems involved in its implementation. The group endorsed the paper and its emphasis on devising more effective means of preventing and treating malnutrition among infants and small children. The young children should be given priority because they have the most severe nutritional problems, and measures to improve their condition will have the greatest effect on the health of the population.

It was agreed that a plan of action should be completed by the current sub-group of the Nutrition Study Group. There was also agreement that the Ministry of Health would coordinate the implementation of the pilot project, but considerable attention was given to the role that might be played by other organisations. A time period for the project of six months to one year was indicated. A budget for the project will need to be prepared for submission to the Ministry of Finance and Planning.

The methods for implementing the project outlined in the paper were endorsed with some further elaboration. It was noted, for example, that the training of the approximately 700 family planning field workers to be recruited by the Ministry of Health should include appropriate training in nutrition. The activities of these workers were viewed as one of the best means for finding seriously or moderately malnourished children in the community. The need for short practical courses for field workers from various agencies participating in the project was stressed, along with the need to emphasise a common approach. Members of the working group from the Ministry of Agriculture, Ministry of Housing and Social Services, Ministry of Health, Catholic Relief Services, UNICEF, the African Medical Research Foundation/Flying Doctors, Ministry of Education, Medical Research Centre/Department of Community Medicine, W.H.O., I.D.S. and P.B.F.L./F.A.O. reported on their current activities and the type of contribution that they might make in implementing the project.

The working group suggested that the following steps be taken:

(1) Recommend that the Ministry of Finance and Planning provide supplementary funds for implementation of the pilot project which would complement existing services when a detailed proposal has been completed, including funds for case finding and rehabilitation in hospitals and at the community level.

(2) Gain support from the Head of the Rural Health Service Programme and National Family Planning Programme to promote the involvement of community nurses in reporting, rehabilitating and following up on cases of malnutrition, and to provide for the participation of family planning educators in case finding, rehabilitation and follow-up to supplement existing nutrition activities.

(3) Incorporate training in the skills necessary for case finding and nutrition rehabilitation into the training programmes for community nurses, family planning field educators, other Government workers and local community volunteers. Nutrition should be a major emphasis in the training of rural health teams.

(4) Avoid contradictions in the training of different types of workers with responsibilities related to nutrition and ensure that the information that they disseminate is consistent.



B. Summarising Discussion by a Panel, the Workshop Participants and Mr. F.Y.O. Masakhalia, Chairman for Topic IV

A final discussion by a panel and Workshop participants was led by Mr. Masakhalia of the Ministry of Finance and Planning. Members of the panel were Dr. Hopcraft of the Institute for Development Studies, Mr. Muturi and Mr. Kituyi of the Ministry of Agriculture, Dr. Mann of the Kenya Freedom from Hunger Campaign, Mrs. Ngui of the Ministry of Health and Mr. Ngugi of the Ministry of Finance and Planning.

Nutrition is a broad issue which should be taken into account in a wide range of the activities of Government ministries and non-governmental agencies: it is not a unidimensional problem which can be dealt with by one programme. Awareness of nutrition issues at the highest levels of Government should lead to an appropriate institutional arrangement whereby nutritional needs and problems can be accorded high priority in all sectors and at all levels, and the efforts of the several Ministries involved in nutrition issues can be effectively coordinated. Such an institutional arrangement could take the form of a food and nutrition planning unit and an interministerial coordinating committee. The formulation of a clear food and nutrition strategy at the national level should provide a basis for the identification of nutrition problems and the planning, implementation and coordination of appropriate programmes.

The first important aspect of a national nutrition strategy is the nature of agricultural production, its rate of growth and the distribution of incomes in the farm sector. Increased production of nutritious food crops such as pulses, horticultural crops, oil crops and cereal crops with a fairly high content of good quality protein, should be encouraged with research and improvements in the pricing and distribution systems. Research should also be directed towards crops which are suitable for semi-arid areas such as cowpeas, pigeon peas and tree crops, and towards producing new strains of maize containing protein of higher quality.

Food crops should be priced with a view towards encouraging production, while at the same time protecting the consumer. Cash crop production should not be discouraged because farmers need the income from cash crops to purchase agricultural inputs which will increase their overall production, and cash sales provide food for the portion of the population who do not live on farms.

In order to encourage a broad distribution of farm incomes, agricultural development should stress progressive modernisation. This means emphasising the use of intermediate technology such as animal power for farming, manure and compost, commercial fertilisers and simple improvements in the equipment and techniques used for cultivation, processing, preservation and storage.

The health and education aspects of a national nutrition strategy are also extremely important. One activity in the field of health is the provision of safe, adequate water supplies which is a necessary complement to the provision of nutritious foods. Nutrition education programmes need to be improved and coordinated, as has been done in the Special Rural Development Programme areas. This should help prevent the incidence of malnutrition among children in areas where food is available. Since highly trained nutrition education workers are not available in adequate numbers to reach the entire population, local community workers should be given short courses in nutrition so that they can disseminate information to their neighbours.

The social service aspect of a nutrition strategy is important since measures to improve nutrition should be directed primarily at disadvantaged groups who are most likely to suffer from nutritional deficiencies. Finally, commerce and industry must be considered in planning and implementing nutrition policies, since food processing, labeling and distribution are important factors in assuring consumers a well-balanced, nutritious diet.

5. CLOSING STATEMENT BY THE HONORABLE DR. JULIA OJIAMBO,  
ASSISTANT MINISTER FOR HOUSING AND SOCIAL SERVICES

I am pleased to have this opportunity to make a few remarks to conclude this Workshop on 'A Food and Nutrition Strategy for Kenya'. The subject of your deliberations during the past two days is close to my heart because it combines my professional interests as a nutritionist, my responsibilities as an Assistant Minister in the Government Ministry with major responsibility for formulation and implementation of food and nutrition policies and programmes, and my concern as a member of Parliament for furthering the wellbeing of the people of Kenya.

Until recently, governments of developing countries have been concerned principally with economic growth, usually interpreted as increase in gross national product. The justification advanced was that a high rate of growth would provide the means for supplying the various needs of the population. In fact, however, large numbers of the poor people gained little benefit from years of such growth. They remained impoverished and unemployed and without the opportunity of improving their economic situation.

Other national goals have been accepted in order to provide for the improvement in the condition of the mass of the neglected: these are improved distribution of income, increased employment, and greater national self-sufficiency.

In the past few years, however, it has been realised that attention also needs to be extended to other equally important aspects of wellbeing, such as nutrition and education. These are significant, not only as 'ends' in the process of development, but also as 'means' which can themselves contribute to the attainment of the objectives and goals of the society and to the quality of life of the people.

An adequate diet that satisfies the nutritional needs of all segments of the population is certainly one of the most fundamental requirements for improving health and wellbeing. It is of course essential if we are to have a healthy, vigorous and productive population, but the Workshop has rightly emphasised the special nutritional requirements of preschool children and pregnant and nursing mothers. If the special needs of those vulnerable groups are not met, the adverse effects on infants and small children are

likely to impair their physical and mental development with serious loss to the country as well as the individuals affected.

In closing this Workshop, I believe that I should emphasise that the work that has been accomplished during this session is only a beginning. The real work lies ahead. First of all, there is a need for the Government to re-examine its existing programmes and organisational procedures in order to determine practical and effective arrangements for ensuring that a higher priority is given and to ensure that our development programmes are as effective as possible in bringing about widespread improvements in the nutritional status and health of the entire population. It has been quite properly stressed that this is a difficult and complex task that requires coordinated efforts by the Ministries responsible for agricultural development, health, social services and education, as well as supporting activities by various non-governmental organisations. I am told that attention has been given to the possibility of constituting some sort of food and nutrition planning unit within the Ministry of Finance and Planning to take an overview of alternative approaches and to assist in formulating specific policies and programmes that will add up to an effective food and nutrition strategy and in coordinating their implementation by the responsible Ministries. This move is most welcome and every effort should be made to see its early implementation. I would also like to suggest that consideration be given to the formation of a high-level inter-ministerial steering group to reach policy decisions when sound and practical proposals have been formulated at the technical level. The whole effort must bring together: (1) the various Ministries of Government responsible for taking decisions bearing on food and nutrition; (2) senior administrators in various Ministries and Departments of Government concerned with the formulation and implementation of policies; (3) professionals and scientists from the public and private sectors, as well as practitioners in the various fields concerned with food and nutrition.

Finally, I want to emphasise the need to ensure that women are actively involved at all levels in formulating and implementing measures to raise nutritional levels. We all know that our women play a vital role not only in rearing children, but also in producing a large part of the food that we consume. They need more effective help through training programmes, technical assistance, and by making available a wide range of services and facilities and also equipment to reduce the drudgery that makes it difficult for them to be fully effective as mother and homemakers. The need is for services that are widely available to rural households and for equipment that is inexpensive enough to be acquired by the millions of farm households that still have very little cash income. Much progress has

been made in organising women's groups that have demonstrated considerable ability to mobilise local resources in an effort to improve the quality of life in rural as well as urban areas. But the Government must provide more effective support for those efforts. As it has been observed, "If you educate a man you only educate an individual, if you educate a woman you educate a family and a nation."

In declaring this workshop officially closed, I wish to thank the organisers for the excellent work, planning, and wise choice of topics. Your job has just started, and you should not rest until you have achieved a national policy body. Thank you.

6. APPENDIX 1: THE WORKSHOP PROGRAMME

THURSDAY  
15th May

- 9.30 - 10.00      Opening Session  
Chairman: Dr. Peter N. Hopcraft (Ag. Director, I.D.S.)  
The Workshop opened by:  
The Hon. J.J. Nyagah, Minister of Agriculture
- 10.00 - 12.30    I      Review of Past Experience and Current Views on the  
Formulation and Implementation of a National Food  
and Nutrition Strategy  
  
Chairman: Dr. Peter N. Hopcraft (I.D.S.)  
Rapporteur: Dr. Martin David (I.D.S.)  
  
Sub-topic A: A New Approach to Food and Nutrition  
Planning.  
Discussion opener: Dr. B.F. Johnston (I.D.S.)  
  
Sub-topic B: The Formulation and Implementation of  
Food and Nutrition Strategies  
Discussion opener: Mr. L.E. Ngugi (Head, Human Res.  
Division, M.F.P.)
- 12.30 - 1.30      Lunch at Kikuyu
- 1.30 - 2.30    II      Analysis of Kenya's Existing Nutrition Programmes and  
Organisational Arrangements  
  
Chairman: Mr. S.N. Muturi (Assistant Director of  
Agriculture, Scientific Research Division, M.O.A.)  
Rapporteur: Dr. Peter N. Hopcraft (I.D.S.)  
  
Discussion opener: Mrs. G. Hesselmark (M.F.P.)
- III      Determining Priorities Among Food and Nutrition  
Policies and Programmes
- 2.30 - 3.30      Sub-topic A: Elements of a Food and Nutrition  
Strategy for Kenya  
  
Chairman: Dr. I. Mann (K.F.F.H.C.)  
Rapporteur: Dr. Ian Livingstone (I.D.S.)  
Panel Members: Mr. Muturi (M.O.A.);  
Mrs. Ngui (Head, Nutrition Division, M.O.H.);  
Mr. Otieno (M.F.P.); Dr. Forbes (Head, Dept. of  
Community Medicine, University); Dr. Schonherr  
(I.D.S.)
- 3.30 - 3.45      Tea Break

- 3.45 - 5.30 Sub-topic B: Plans for a Pilot Project for Pre-school Children as an Example of a Priority Measure to Reduce Malnutrition in a Vulnerable Group
- Chairman: Mrs. Susan Ngui (M.O.H.)  
Rapporteur: Miss Jennifer Berger (P.B.F.L./F.A.O.)  
Discussion opener: Dr. D.M. Blankhart (Medical Research Centre)
- FRIDAY  
16th May
- 9.00 - 12.30 Meetings of Working Groups on Topics II, IIIA and IIIB
- Chairman of Group II: Mr. Muturi (M.O.A.)  
Chairman of Group IIIA: Dr. Mann (K.F.F.H.C.)  
Chairman of Group IIIB: Mrs. Ngui (M.O.H.)
- 12.30 - 1.45 Lunch
- 1.45 - 3.45 IV Towards a National Food and Nutrition Strategy for Kenya
- Chairman: Mr. F.Y.O. Masakhalia (Chief Economist, M.F.P.)  
Rapporteur: Dr. B.F. Johnston (I.D.S.)
- Sub-topic A: Reports and Recommendations of the Working Groups
- 3.45 - 4.00 Tea Break
- 4.00 - 5.30 Sub-topic B: Discussion by Panel and Participants  
Panel Members: Dr. Hopcraft (I.D.S.); Mr. Muturi (M.O.A.); Mr. Kituyi (Crop Prod. Division, M.O.A.); Dr. Mann (K.F.F.H.C.); Mrs. Ngui (M.O.H.); Mr. Ngugi (M.F.P.)
- Closing Statement: The Hon. Dr. Julia Ojiambo,  
Assistant Minister, Ministry of Housing and Social Services

7. APPENDIX 2: LIST OF PARTICIPANTS

(Number in brackets indicates the working group in which the participant took part.)

NAME	ORGANISATION	POSITION	ADDRESS
1. Miss J. Berger	P.B.F.L./F.A.O.		P.O. Box 30470, Nbi.
2. Dr. D.M. Blankhart (IIIB)	Medical Research Centre	Head Nutritionist	P.O. Box 20752, Nbi.
3. Sr. Mary Bowes (II)	Catholic Relief Services		P.O. Box 49675, Nbi.
4. Mr. M.Cowen	I.D.S.	Research Fellow	P.O. Box 30197, Nbi.
5. Prof. Martin David (IIIA)	I.D.S.	Visiting Professor	P.O. Box 30197, Nbi.
6. Sr. Joan Devane (IIIA)	Med. Dept., Kenya Catholic Secretariat		P.O. Box 48062, Nbi.
7. Mr. J. Dunmore (IIIA)	Ministry of Agriculture	Ag. Economist	P.O. Box 30028, Nbi.
8. Mrs. M. Egren (IIIB)	UNICEF		P.O. Box 44145, Nbi.
9. Dr. C. Forbes	Dept. Community Medicine, University of Nairobi		P.O. Box 30197, Nbi.
10. Dr. J.M. Gachuhi	UNESCO	Regional Com. Advisor	P.O. Box 30592, Nbi.
11. Prof. E.T. Gibbons (IIIA)	Dept. of Ag. Economics, University of Nairobi	Ast. Professor	P.O. Box 29053, Nbi.
12. Mrs. C.N. Gichungwa (IIIB)	Inspectorate, Min. Education	Home Science Inspector	P.O. Box 30040, Nbi.
13. Mrs. M. Gomez (IIIA)	Fac. of Agriculture, University of Nairobi		P.O. Box 29053, Nbi.
14. Dr. R.E. Gray (IIIA)	Ministry of Agriculture	Planning Officer	P.O. Box 30028, Nbi.
15. Mrs. G. Hesselmark (II)	Min. of Finance & Planning		P.O. Box 30007, Nbi.
16. Dr. P.N. Hopcraft	I.D.S.	Acting Director	P.O. Box 30197, Nbi.
17. Sr. F. Jacob (IIIB)	Catholic Relief Services	Nutritionist	P.O. Box 48932, Nbi.
18. Prof. B.F. Johnston (IIIB)	I.D.S.	Visiting Professor	P.O. Box 30197, Nbi.
19. Mrs. J.W. Kanina (II)	Kenya Institute of Education	Head, Home Science	P.O. Box 30231, Nbi.

1 38 1

13/07 14



	NAME	ORGANISATION
20.	Mr. J.K. Karanja (IIIA)	Ministry of Agriculture
21.	Mrs. Rose Kiangura (IIIB)	Ministry of Agriculture
22.	Mrs. N.B. King'ori (IIIA)	N.C.C.K.
23.	Miss Wairimu Kinyua (II)	Salvation Army Ag. Centre
24.	Mr. Richard Kituyi (IIIB)	Ministry of Agriculture
25.	Dr. E. Krystall	P.B.F.L./F.A.O.
26.	Mrs. M. Likimani	
27.	Prof. Ian Livingstone (IIIA)	I.D.S.
28.	Miss Lusialo	
29.	Dr. Igor Mann (IIIA)	K.F.F.H.C.
30.	Mr. Y.F.O. Masakhalia	Min. of Finance & Planning
31.	Mr. E.S. Mbugua (IIIB)	I.D.S.
32.	Mr. S.N. Muturi (II)	Ministry of Agriculture
33.	Mrs. M.W. Nderi (IIIB)	Provincial Education Office, Nairobi
34.	Mr. L.E. Ngugi	Min. of Finance & Planning
35.	Mrs. S. Ngui (IIIB)	Ministry of Health
36.	Miss R.M. Njoroge (IIIA)	Ministry of Agriculture
37.	Mrs. M.A. Nzukie (II)	Nat. School Feeding Council
38.	Mr. F.M. Ochieng (IIIB)	Min. of Housing & Social Services
39.	Mr. R.L. Odupoy (IIIA)	Ministry of Agriculture
40.	Mrs. L. Okomo (II)	Ministry of Agriculture
41.	Dr. J.M.V. Oomen	
42.	Mr. J.O. Otieno (IIIA)	Min. of Finance & Planning
43.	Mr. N.Z. Otieno (IIIA)	Nat. School Feeding Council

POSITION	ADDRESS
Economist	P.O. Box 30028, Nbi.
Home Ec. Officer	P.O. Box 30028, Nbi.
Programme Secretary	P.O. Box 45009, Nbi.
	P.O. Box 274, Thika
S.A.O.	P.O. Box 30028, Nbi.
	P.O. Box 30470, Nbi.
	P.O. Box 48746, Nbi.
Visiting Professor	P.O. Box 30197, Nbi.
	P.O. Box 45025, Nbi.
Chief Economist	P.O. Box 30007, Nbi.
Survey Research Supervisor	P.O. Box 30197, Nbi.
ADA (R)	P.O. Box 30028, Nbi.
Head, Home Science	P.O. Box 30040, Nbi.
Principal Economist	P.O. Box 30007, Nbi.
Nutritionist	P.O. Box 30016, Nbi.
	P.O. Box 30028, Nbi.
Dept. of Nat. Dev. Officer	P.O. Box 49772, Nbi.
	P.O. Box 30276, Nbi.
Planning Officer	P.O. Box 30028, Nbi.
	P.O. Box 30028, Nbi.
	P.O. Box 30588, Nbi.
Economist	P.O. Box 30007, Nbi.
Nat. Ex. Officer	P.O. Box 49772, Nbi.

- 39 -

IDS/OP 14

	NAME	ORGANISATION
44.	Miss A.O. Pala	I.D.S.
45.	Mrs. F.O. Pinto (IIIA)	Ministry of Education
46.	Dr. Quraisby	Dept. of Ag. Economics, University of Nairobi
47.	Dr. A. Raba (IIIB)	W.H.O.
48.	Mr. Peter Riwa (IIIB)	African Medical and Research Foundation
49.	Mrs. V. Rodrigues (II)	Department of Home Economics, Kenyatta U. College
50.	Mr. M.A. Rugh (IIIA)	U.S.A.I.D.
51.	Dr. S. Schonherr (IIIA)	I.D.S.
52.	Mr. P.K. Syindu (IIIA)	Ministry of Education
53.	Mrs. M.N. Thuo (II)	Ministry of Housing & Social Services
54.	Dr. A. Weber	Dept. of Ag. Economics, University of Nairobi
55.	Mrs. N.L. Were (IIIA)	Ministry of Education
56.	Mrs. S.B. Westley (IIIA)	I.D.S.

POSITION	ADDRESS
Research Fellow	P.O. Box 30197, Nbi.
	P.O. Box 30040, Nbi.
Senior Lecturer	P.O. Box 29053, Nbi.
Nutrition Officer	P.O. Box 45335, Nbi.
Health Education Off.	P.O. Box 30125, Nbi.
Lecturer	P.O. Box 43844, Nbi.
	P.O. Box 30261, Nbi.
Research Fellow	P.O. Box 30197, Nbi.
	P.O. Box 30040, Nbi.
Community Development Officer	P.O. Box 30276, Nbi.
Professor	P.O. Box 29053, Nbi.
Schools Inspector	P.O. Box 30040, Nbi.
Publications Editor	P.O. Box 30197, Nbi.