

NATIONAL FOOD AND NUTRITION POLICY IN THE COMMONWEALTH CARIBBEAN¹

Robert Cook, D.M., D.P.H.;² and Yueh-Heng Yang, M.S.³

One way of combating the nutrition problems confronting many countries of the Americas is by developing a coordinated food and nutrition policy at the national level. This article discusses the need for such a policy in the context of the English-speaking Caribbean nations.

Introduction

Concern of governments with *food supply* is as old as the history of mankind. Many historical examples come easily to mind—from establishment by the Greek city-states of colonies on the coast of southern Russia where grain grew abundantly; to Roman annexation of Egypt for the primary purpose of securing “bread,” which together with the “circuses” would keep the city population peaceful; to the political controversy in England between 1815 and 1846 over the Corn Laws and their repeal, a prolonged struggle between landowners and industrialists over cheap food for factory workers.

Concern of governments with *nutrition* as such is naturally more recent, because the science of nutrition is itself relatively young. Government actions did not really begin on a large scale until the nineteen-twenties and thirties. And even then, until after the Second World War their main emphasis was on vitamins, since particular vitamin deficiency diseases such as rickets in industrial northern Europe, pellagra in the United States of America, and beriberi in the Far East were major health problems (1).

The importance of protein in the diet was not recognized until after the great pioneering

work of the nineteen-thirties by Dr. Cicely D. Williams, a Jamaican who first described kwashiorkor while serving as a District Medical Officer in Northern Ghana (2).

The latest major development in recognizing nutritional needs has been recognition of the importance of caloric supply (in effect recognizing the importance of a total, balanced, adequate diet) to a point where the terms “protein problem” or “protein gap” are now seen as being somewhat inappropriate (3, 4).

The activities of governments (and also voluntary agencies and foundations, which often led the way) have evolved significantly in the period since 1945. At first, and this still applies to some extent, the programs were what one might call single-target programs. As examples one may point both to the vitaminization programs that promoted such things as food fortification or distribution of cod liver oil, and to the programs centering on one specialized field or one government ministry—such as the so-called “well-baby” or infant welfare clinics. Many of these programs were successful, very successful indeed. The great vitamin deficiency diseases—beriberi, rickets and pellagra—were virtually conquered, and infant mortality was greatly reduced. Nevertheless, the child health clinic, improved from a scientific as well as a nutritional point of view, still has a major role to play, both now and in the future.

However, after clinic expansion peaked in the nineteen-fifties, having received considerable impetus from UNICEF assistance, a general feeling arose that the infant welfare clinic was not enough. Attention needed to be given to

¹Slightly revised version of the article previously published in *Cajanus, Quarterly Newsletter of the Caribbean Food and Nutrition Institute*, Vol. VI, No. 2 (April-June), 1973, pp. 77-94.

²Director, Caribbean Food and Nutrition Institute, Kingston, Jamaica.

³Formerly Deputy Director, Caribbean Food and Nutrition Institute, Kingston, Jamaica.

other methods of improving nutrition, such as promoting more food production in home gardens, achieving better food preparation in the home, and, in particular, helping the enormous and important target audience which the schools provide. Thus arose a partnership of health, agriculture, and education generally called the *applied nutrition program*, which has striven especially to improve nutritional knowledge and action on the part of the people themselves. These applied nutrition programs were devised and initiated in many countries, among them several Caribbean countries, during the late nineteen-sixties.

To be candid, they have experienced their share of setbacks and failures. For one thing, because they were never very comprehensively financed, having to draw most of their resources from the general budgets of the ministries involved, many of them have not yet expanded out of their initial pilot areas to achieve the nationwide coverage originally intended. Moreover, the need for collaboration has placed a considerable demand on the patience and understanding of officials in different ministries, and sometimes differences arise and are exacerbated. Nevertheless, most applied nutrition programs have quite a few successes to their credit, not least among them being a significant sharpening of public and political awareness of the meaning and importance of nutrition, as well as the successful establishment of at least a testing-ground for interministerial cooperation.

Recent Developments

At the same time, however, economic changes have been taking place that affect the food situation in the nations of the Caribbean. Political independence has led to a clearer realization of national needs, as well as to an increased and sometimes bitter awareness of economic dependence on others. It is clear that the primary products of developing countries often have to struggle to maintain their place in the world market; that tourism is vulnerable to all kinds of fluctuations; and that small local

manufacturers find it hard to compete with large corporations.

Worst of all, perhaps, it becomes very apparent that the food supplies of many developing countries—and this applies very much to the Caribbean—are excessively dependent on relatively remote events, often ones that are neither predictable nor controllable by the developing countries themselves. Contemporary examples of such events include the United States corn blight of 1971, large wheat sales by one super-power to another, a rain-spoiled soya harvest, and a butter agreement made by powers in Europe.

All of these events have contributed to raising the price to the Caribbean consumer of flour, bread, beef, poultry, pork, and milk in all of their forms. Added to this are the effects of devaluation on countries that import much of their food, increasing in local currency terms the price of imports and diminishing in the local currency the price per unit obtained for exports. One is no mere prophet of doom who says there seems to be danger of a continuing and increasing relative food shortage here among the Caribbean peoples.

In a country where the average person's expenditure on food amounts to under twenty per cent of his income, a rise to twenty-five per cent is not really a major disaster. However, the national food and nutrition surveys of Barbados and Guyana (5, 6) show that in these countries half the population is already compelled to spend between 60 and 90 per cent of its income on food. Moreover, a close correlation between low family income and the presence of malnutrition shows how vulnerable children are to any significant rise in basic food prices that is not accompanied by a rise in family income.

The Governments of the Caribbean are neither asleep nor unaware of these things. For some years now they have done their best to control the price of basic foods, not always successfully and not always in the most sophisticated way, but they have been exercising a fairly tight degree of control over the foods which matter most to the people. And recently other direct manifestations of government con-

cern have appeared. Guyana, which because of its land resources is the least dependent on imports of the five sovereign states in the English-speaking Caribbean, has adopted the goal of achieving self-sufficiency in food by 1976. The Government of Jamaica is now undertaking a series of actions whereby it imports certain basic foods and sells them at cost or even below cost by means of a subsidy.

What determines those foods which are considered basic? Not merely their popularity and certainly not the proportion of foreign exchange they use up, but rather their basic nutritional value as inexpensive major sources of calories and protein in the diet of the mass of the people. Thus when we speak of a national food and nutrition policy we are not dealing with some abstraction of marginal importance being promoted by external advisers; rather, we are dealing with something which always had importance but which is rapidly approaching the most critical level not merely of importance but of simple necessity, which is becoming one of the most essential and urgent subjects, and which is now calling for increased effort on the part of governments and people alike.

However, the matter is extremely complex. In spite of past concern and past experience, the whole area of national food and nutrition policy is still to some extent an uncharted sea. Even the most sophisticated country, with everything in its favor from computer technology to data banks to think tanks, has found itself surprised by wheat and soya shortages stemming in part from its own policies and past actions. Everyone is good at pointing out critical price increases after they have happened. But we are not so good at foreseeing these increases and preventing them.

The Concept of a National Food and Nutrition Policy

As previously noted, a variety of definite actions were taken in the past to safeguard and extend national food supplies in relation to nutritional needs. However, these have usually

been ad hoc responses to threatened crises, and have sometimes been based on rough-and-ready guiding principles. More recently, through development of a national food and nutrition policy, governments are attempting to define these principles more clearly, to set targets, to establish programs that can reach these targets, and to protect the country as far as possible against unexpected blows.

An early definition of the term *national food and nutrition policy* stated simply that such a policy "concerns the complex of measures which promote changes in food consumption that lead to adequate levels of nutrition" (7). The FAO Manual by Johnston and Greaves from which this quotation is taken remains a most important source of information on the subject.

A later publication (8) says that "the food and nutrition policy should be defined as the formulation of a series of measures designed to ensure an optimum nutritional state for the entire population, through adequate supply of foods and appropriate changes in the patterns of consumption."

Another definition (9) states that a national food and nutrition policy is "a complex of educational, economic, technical, and legislative measures designed to reconcile, at a level judged feasible by the planner, projected food demand, forecast food supply, and nutritional requirements."

More recently, a paper by Rueda-Williamson (10) defined food and nutrition policy as "a coherent set of principles, objectives, priorities, and decisions adopted by the government and applied by its institutions as an integral part of the national development plan, in order to provide to all the population, within a specified time, the food and other social, cultural, and economic conditions essential to satisfactory nutrition and dietary well-being."

These definitions are at no point in conflict. The second, third, and fourth are simply a series of refinements, clarifications, and elaborations of the first definition. It can thus be seen that programs to implement national food and nutrition policies will seek to combine

nutrition-related activities in health, education, community development, and consumer protection with programs pertaining to agriculture, trade, economic development, and the food industry. Within this framework there is room (and indeed need for) both short-term and long-term measures and goals—short-term goals including such things as protection of children and pregnant women from the more severe nutritional consequences of low purchasing power, and long-term goals including objectives such as virtual elimination of clinically detectable malnutrition and greater national self-sufficiency in food supply.

The justification for such comprehensive policy is not merely humanitarian, not merely economic, and not merely political (in the best sense of the latter word). Rather, it is all of these. For this policy is basic to the support of social, economic, and human development. Overreliance on food imports is perilous. Malnutrition causes avoidable public expenditure; by affecting the mental and behavioral development of children and the working efficiency of adults, it constitutes an economic drag on the community and poses a crucial social problem. Improvement of nutrition accelerates economic development, promotes social stability, and represents a fruitful investment in the people—who of course constitute our most important natural resource. It is not just a social welfare policy, but rather a policy of lasting value for the future of every nation.

Formulating a National Food and Nutrition Policy

In some countries it is quite difficult to create an awareness among economic planners and decision-makers that nutrition is a national problem deserving priority attention. However, throughout the Commonwealth Caribbean of today that awareness already exists: the dialogue between nutritionist, planner, and politician has already begun; and several countries are taking steps toward the formulation of national food and nutrition policies.

The first such step is collection of baseline data on the actual food and nutrition situation in order to diagnose the problem. Besides population and agricultural censuses, the necessary data can be obtained from several important sources. These include:

- 1) Food balance sheets—with the assistance of the Caribbean Food and Nutrition Institute (CFNI) these have been prepared for many of the Caribbean countries in recent years.

- 2) Household food consumption surveys—such surveys were undertaken in Barbados, Trinidad and Tobago, and Guyana between 1969 and 1971.

- 3) Assessments of the nutritional status of the population—recent data are available from surveys in Barbados, Jamaica, Guyana, and St. Vincent.

- 4) Household budget surveys—particularly with respect to expenditures on food and nutrient costs. Such information is available for at least Barbados and Guyana.

- 5) Appraisals of food habits, food customs, food preferences, nutritional practices, attitudes toward nutrition, and knowledge about nutrition. A number of such studies have recently been undertaken in most countries of the area.

As this indicates, since 1968 a substantial portion of the data needed has become available. These data are not perfect or complete, but if action were to wait for perfect and complete baseline data no action would ever occur. In short, we may safely say that, at least in the independent countries, sufficient data are available to justify the initiation of a national food and nutrition policy.

The Scope of the Policy

National food and nutrition policy has been defined as a complex of educational, economic, technical, and legislative measures designed to reconcile food demand and food supply with nutritional requirements. Instead of the term “nutritional requirements,” some would use the phrase “biological utilization of food,” which is

acceptable so long as it is not thought to signify only the process of digestion and absorption, but is taken to include both nutritional requirements and factors influencing these requirements.

We may note at the outset some of the relationships between the three factors of food demand, food supply, and nutritional requirements (see Figure 1).

The connection between supply and demand are clear: demand strongly influences supply; supply to a variable extent satisfies demand; and consumption, which stems from the interaction of supply and demand, is the only means by which nutritional requirements can be met. While supply and demand do not directly influence requirements, there are other factors which can interfere with optimum biological utilization of food, which affect nutritional requirements, and which thus influence the extent to which the availability and consumption of food can satisfy these requirements. Such factors include, for example, illnesses that raise protein and calorie requirements and the prevalence and degree of intestinal parasitism.

The influence of nutritional requirements on food demand is weak in developing countries, being limited for the most part to those among whom education influences food selection and purchase. (Herein lies the role of nutrition education and consumer education). Also, nutritional requirements have little influence on

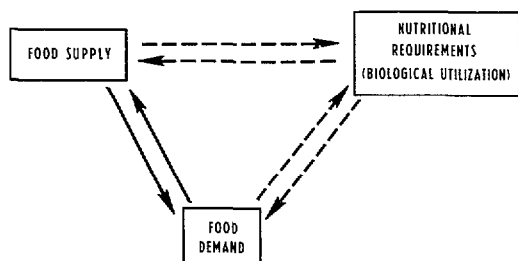
actual food supply, except where nutrition education stimulates home gardens or subsistence food production, or where there is strong government intervention—such as in wartime or in strongly centralized economies.

In the midst of this triangular arrangement stands the national food and nutrition policy. The sections that follow list some of the more important measures, programs, and projects through which this policy can influence the interactions between these three factors. The list is by no means all-inclusive, and the technical reader can no doubt easily expand upon it.

Food Supply Measures

1. Raise food production:
 - a) Expand usable land (through settlement, agrarian reform, irrigation, or drainage).
 - b) Make better use of land (through improved agriculture, including better use of fertilizers).
 - c) Promote mechanization, improved varieties of seed or livestock, etc.—particularly with respect to basic staple foods.
 - d) Provide incentives for increasing production (such as guaranteed prices).
2. Improve marketing:
 - a) Facilitate transportation (especially by 'feeder' roads in rural areas).
 - b) Improve storage (by promoting use of silos, cold storage, etc.).
 - c) Promote the grading of produce.
 - d) Help to organize and simplify marketing (through marketing corporations, marketing cooperatives, high-volume low-price stores, etc.).
3. Improve food conservation and processing:
 - a) Promote rat-proof and insect-proof storage and packaging.
 - b) See to the provision of veterinary services and vaccinations.
 - c) Promote improved canning and drying of produce.

FIGURE 1—Some of the relationships between food demand, food supply, and nutritional requirements. In particular, (1) demand strongly affects supply; (2) supply to a varying degree satisfies demand; and (3) interactions between supply and demand affect consumption and influence the ways in which nutritional requirements can be met.



4. Promote food quality control:

a) Establish standards regarding food hygiene, food additives, and nutritional quality.

b) Promote food fortification and enrichment.

products as "tonic" foods, powdered milk for infants, etc.;

d) government support for consumer associations.

Measures Involving Food Demand

In the final analysis per capita family income—which itself depends partly on employment opportunities, education, and family size—is the major factor here. Especially in developing countries, where such a large portion of family income must be spent on food, all measures improving per capita income for a large number of families will stimulate food demand.

In general, it should be remembered that supplementary feeding programs are indirect forms of income-redistribution if they get their financing from non-regressive taxes but benefit those most in need. (This also applies to other services, including public health services and public education.) Specific measures affecting food demand directly are:

1. Food price manipulation or control:

a) reduction of tariffs on basic foods, and increase of tariffs on luxury foods or foods of low nutritional value;

b) imposition of tariffs designed to protect and stimulate local production;

c) provision of subsidies for purchasing essential foods at times of world scarcity;

d) implementation of price control measures, or regulation of the mark-up permitted between the production or importation point and the retail outlet.

2. Nutrition education and consumer education:

a) promotion of consumer guidance through the mass media;

b) provision of nutrition education in schools;

c) regulation and control of advertising; prohibition of misleading promotion of such

Measures Influencing Nutrient Requirements and Biological Utilization of Food

These measures relate mainly to control of parasitic and infectious diseases causing loss of nutrients. Among preschool children, who constitute the most vulnerable age group, this loss is probably very significant. Activities which could diminish this waste include: programs to strengthen maternal and child health services; immunization against measles, whooping cough, and tuberculosis; environmental sanitation; improved water supply; food hygiene; and promotion of breast feeding.

A change from breast feeding to artificial feeding, it should be noted, involves complete loss of the one food which is entirely specific for our species, and which provides a child with an adequate total food supply for six months plus a supplementary food supply for six to twelve months.

Education and Training Measures

Although it was not specifically mentioned before, successful implementation of many of the above measures depends on adequate training programs which can provide the personnel needed in the field of agriculture and related specialties, in food science and technology, in certain health fields, in various types of education, in management and administration, and in the field of nutrition itself.

Essential Ingredients of a National Food and Nutrition Policy

Several elements are particularly vital for any national food and nutrition policy. Some of these are as follows:

1) The policy will not even exist, let alone be implemented, unless the nation's economic planners find it compatible with the country's economic development plans. Similarly, and

even more important, it must be acceptable to the political authorities who govern the country and who are in charge of deciding what national policy will be.

2) The policy's measures, whether in the field of health, or education, or agriculture, or trade, or whatever, should be specific. That is, they should have specific objectives, with numerical targets if possible, and definite pre-set dates by which these objectives should be reached.

3) The policy must be pragmatic. It must be based on the actual resources available and the actual programs and projects that already exist.

4) The policy must be dynamic. Circumstances will change, some goals will be reached, new knowledge will become available, experience will show the best ways of attaining certain objectives, and new ways of investing in nutrition will become technically feasible. The policy-making, coordinating, and implementing machinery must be flexible enough to respond to these events.

Some clarification is appropriate here regarding implementation. That is, whatever the interministerial coordinating machinery, each item of policy and each project and program called for in the policy should be the responsibility of that Ministry, (Education, Agriculture, Health, Trade, etc.) which normally supervises the activity involved. To depart from this is likely to generate confusion and cause considerable frustration.

Government Machinery for Formulating and Implementing a National Food and Nutrition Policy

It is clear that the national food and nutrition policy overlaps the policies of a number of ministries, and that these ministries in turn will be the instruments for implementing the food and nutrition policy. It follows, therefore, that some form of coordinating machinery is essential. There are several levels involved here:

1) The political decision-making level;

2) The technical planning level, which is responsible for formulating policies and planning programs for submission to the first level; and

3) The technical support level, charged with making specific studies and preparing the details of program plans in particular sectors.

In the Caribbean context, let us examine what would be feasible and desirable organizational characteristics at these three levels.

The Political Decision-making Level

In the larger Caribbean countries there exists a Cabinet committee with the name Economic Development Committee, Economic Planning Committee, or some similar title. A food and nutrition subcommittee of this committee would have the characteristics needed at this upper level, in that it would be headed by the highest authority (the Prime Minister or his deputy or nominee) and would give enough emphasis to economic planning so that a food and nutrition policy could be coordinated completely with the National Development Plan. A further advantage is that since the committee's members are ministers or deputy ministers the highest authority in each sector is represented. At the same time, since the Cabinet has authority for financing development, the subcommittee arrangement reduces the chance that inadequate financing will discourage implementation of policy, as happened in the case of the applied nutrition programs mentioned earlier.

If desired, this top-level group could be organized slightly differently—e.g., as a national nutrition council—provided that the prime ministerial leadership and ministerial-level representation were retained.

In either case the main job of this group is to provide authority and decision-making, not technical discussion, and it need not meet very often. Until the national food and nutrition policy is formulated and adopted it might need to meet on a quarterly or monthly basis, but after that meetings about half as frequent as the initial ones should suffice.

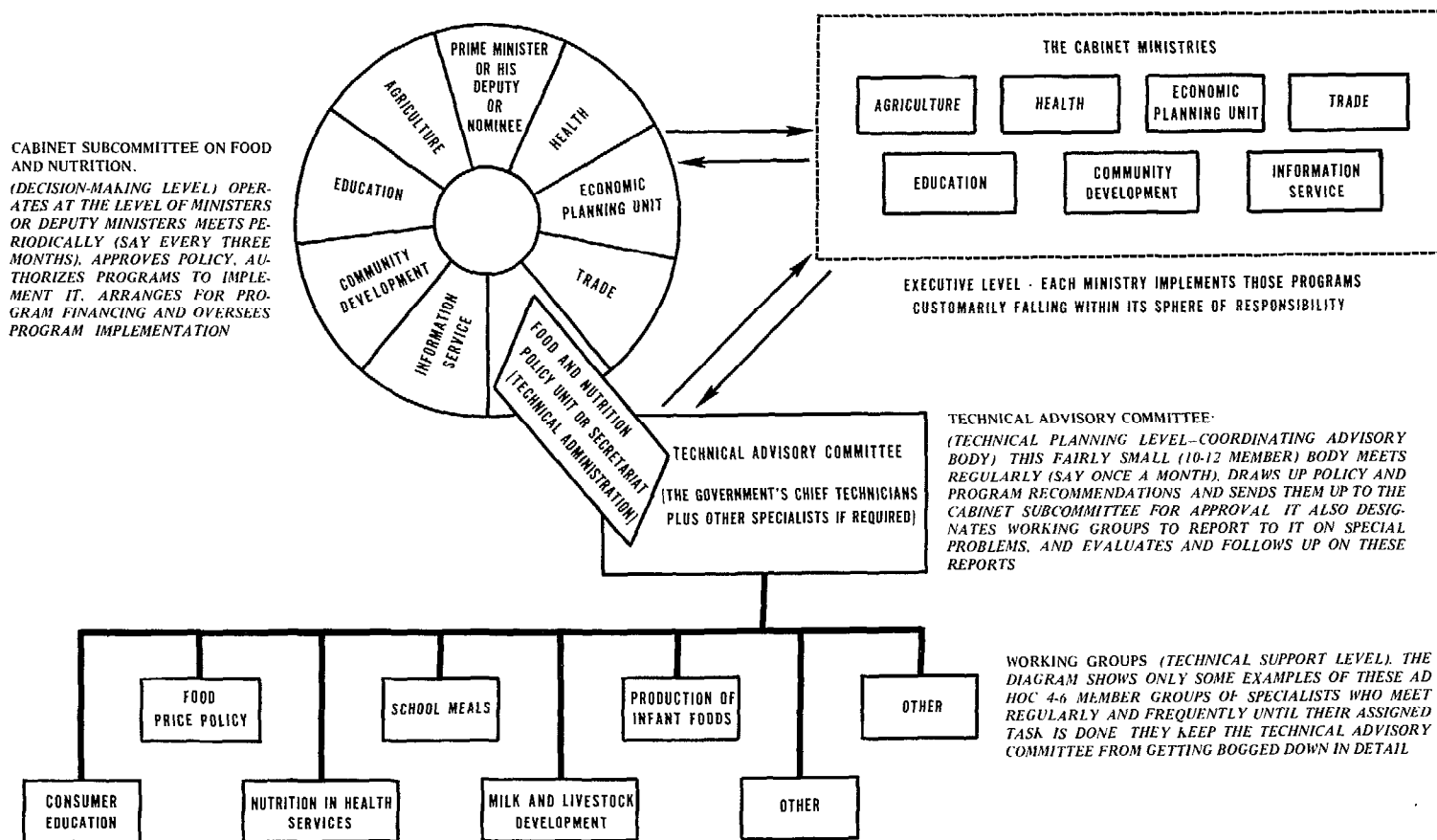


FIGURE 2—Inter-ministerial machinery for developing national food and nutrition policy.

The Technical Planning Level

Considering conditions in the Caribbean, the most appropriate medium-level organization would probably be what is often called a technical advisory committee. This body would include the government's chief technicians in the sector involved (these are sometimes the chief technical officers of the ministries, but in specialized fields this is not necessarily so). Should there be a particular reason for doing so, other people such as representatives of the private food industry or agro-industry, members of voluntary agencies, or special advisers from international agencies might be included in the work of the advisory committee; but usually such support is more appropriate at the technical support level.

The technical advisory committee's functions are: to formulate the national food and nutrition policy (with economists playing their proper role) for submission to the political decision-making level; to plan the programs needed to implement the policy; and to evaluate the effectiveness of both the policy and the programs. However, the technical advisory committee must not allow itself to get bogged down in long discussions of details that concern only a minority of its members. For this reason it needs the support of more specialized technical groups.

The Technical Support Level

This would consist of ad hoc working groups

composed of a small number of experts, as few as four or five. Such groups could be called into existence for quite specific purposes, i.e., to prepare reports or make detailed plans for programs in such specialized areas as livestock development, school meals, nutrition provided by health services, food price policy, etc. Such working groups would naturally meet frequently until the task assigned to them were completed.

The Secretariat or Food and Nutrition Policy Unit

In addition, some kind of secretariat is clearly required—in order to provide effective coordination on a day-to-day basis between the three levels described, to assist cooperation between the ministries involved, and to help maintain the momentum of the whole process of policy formulation, implementation, evaluation, and reformulation. Besides its other tasks, a secretariat must prepare for the meetings at the different levels, and so must have an experienced administrator in charge.

For the smaller countries one administrator may suffice. However, in the larger countries of the Caribbean the secretariat could in fact be a small interdisciplinary technical group, a food and nutrition policy unit working in connection with the sectoral planning units of the various ministries. The accompanying diagram attempts to provide an illustration of the kind of coordinating machinery desired.

SUMMARY

For many years the Governments of the Caribbean have made concerted efforts to improve the nutrition of their peoples. Nevertheless, the idea that there should be a coordinated food and nutrition policy at the national level is relatively new. This article discusses

what a national food and nutrition policy should be, ways to formulate it, what scope it should have, some ingredients essential for its success, and the government machinery needed to make it work.

REFERENCES

- (1) Aykroyd, W.R. *Conquest of Deficiency Diseases, Achievements and Prospects*. Geneva, World

- Health Organization, 1970. (Freedom from Hunger Campaign, Basic Study No. 24.)

- (2) Williams, Cicely D. A nutritional disease of children associated with a maize diet. *Arch Dis Child* 8: 434, 1933.
- (3) Protein Advisory Group of the United Nations System. PAG statement No. 20, on the "protein problem." *PAG Bulletin*, Vol. 3, No. 1, 1973, p. 4.
- (4) Payne, P.R. Nutrition: A priority in African development (letter to the editor). *Lancet* 1: 932, 1973.
- (5) Pan American Health Organization. *The National Food and Nutrition Survey of Barbados*. Washington, D.C., Pan American Health Organization, 1972. (PAHO Scientific Publication 237.)
- (6) *The National Food and Nutrition Survey of Guyana*. (In press.)
- (7) Johnston, B.F., and J.P. Greaves. *Manual on Food and Nutrition Policy*. Rome, Food and Agriculture Organization, 1969. (FAO Nutrition Studies, No. 22.)
- (8) Pan American Health Organization. *Elements of a Food and Nutrition Policy in Latin America*. Washington, D.C., Pan American Health Organization, 1970. (PAHO Scientific Publication 194.)
- (9) Food and Agriculture Organization. Formulation of food and nutrition policies. *Nutrition Newsletter*, Vol. 10, No. 2, 1972, p.1.
- (10) Rueda-Williamson, R. Mechanisms for formulating and coordinating national food and nutrition policies and programs. In: *VI Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control* (Medellín, 9-12 April 1973). Washington, D.C., Pan American Health Organization, 1974, pp. 49-59. (PAHO Scientific Publication 281.)