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Interim Report on Nutrition in Uganda

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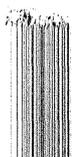
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In 1937 the Agricultural Survey Committee published a nutritional review of the Uganda Protectorate, giving a conspectus of the nutrition problem as far as it had then been investigated. It was stated that a Medical Officer would be made available in 1938 for the study of the nutritional health of inhabitants in various areas of the Protectorate and the writer was selected to undertake this work. After a year's investigation certain facts have become plain and these may conveniently be summarised as follows:—

(i) The nutritional state of the great majority of the African inhabitants of Uganda is below the optimum. Reference to the results of work elsewhere shows that such a state of affairs is world-wide, but there is reason to believe that as a rule conditions in Tropical Africa are especially bad and that most parts of Uganda form no exception to this rule.

(ii) Much ill-health is directly due to improper feeding and is causing the country avoidable expenditure; this cost is incurred both directly, as by the medical care of Africans suffering from diseases such as tropical ulcer, and indirectly, by the loss of energy and efficiency sustained by large sections of the population.

(iii) In Uganda ignorance and custom are responsible for a very large share of nutritional ill-health. These causes can be combated by action on the part of administrative and technical officers in touch with African communities.

2. It is the purpose of this report to point out some of the important faults in local dietaries and possible means by which they may be eradicated. Generally speaking, district officers realise that dietetic errors are common in their districts and have expressed themselves as eager to undertake such remedial measures as are practicable.

3. Before proceeding to details it may be helpful to explain that foods are commonly classified into two kinds, according to the bodily needs which they supply:—

(a) *Energy-bearing Foods.*—These provide fuel for the body's constant activities, the fuel content being assessed in calories, or units of heat. Starchy and fatty foods represent the chief energy providers and when they are deficient the body's output of work must fall; this fact is usually familiar to the user of animal labour but less often realised by employers of human labour.

observations so far made in school children of various tribes suggest that growth is not proceeding normally in most cases.

The conditions produced by lack of protective foods are generally referred to by the name "*malnutrition*".

A. Factors Affecting Nutrition.

4. Leaving aside economic factors, the others which help to cause subnutrition and malnutrition may be classified into:—

(i) *Climatic*.—The marked dry season which distinguishes the grain-growing areas of Uganda produces two distinct effects: in the first place it is necessary to store the staple foods, such as millet, in order to tide over the unproductive months between harvests. This period amounts, in some parts, to six months, and a poor harvest or late rains may cause food stores to be insufficient in quantity, thus producing a state of subnutrition. Secondly, the foods commonly stored are deficient in protective value, while extras such as edible leaves are unobtainable in the dry season. At the same time milk yields become even less than usual, so that cases of malnutrition, occur very frequently at this time.

(ii) *Ignorance*.—Considering that the scientific world has only recently realised the immense importance of balanced diets, it is not surprising that the primitive African has no conception of the nutritive and protective values of various foods. His sole idea is to eat to repletion; provided that the food is, to him, not unpalatable he shows little interest in variety and none in food values. He is not, however, as conservative as one is inclined to believe, and the introduction of alternative food crops is a measure which has succeeded in the past and will have to be repeated in the future.

(iii) *Custom and Tabu*.—Essentially, the African is as conservative as anyone else, and the feeling that "what was good enough for my father is good enough for me" is responsible for much dietetic mischief. There is no craving for originality in diet and, without outside prompting, there will be no change. This innate conservatism has become crystallised in some particulars to form tabus. Such prohibitions are really in the province of the anthropologist and psychologist, but experience shows that they may be conveniently placed in two groups:—

(iv) *Accidental Factors* include location; it has been found that families living near lakes or swamps show better nutritional health than members of the same tribes living inland. This difference is directly due to the consumption of fish by the former. Again, locust invasions may cause a temporary change in diet, both by destroying food crops and by providing quantities of animal food for a short time.

5. From the dietetic point of view the country may be divided very roughly into two parts, the South and West, where plantains and pulses form the staple diet, and the North and East, where grain forms the chief food, though variable amounts of pulses, oil-seeds and sweet potatoes are also grown. In the former area the dry season is, as a rule, not marked, and cases of frank subnutrition are uncommon; in the latter, the definite dry season produces many obvious cases of subnutrition and may even have some bearing on the physique of the whole population. It is instructive to note how the lanky peasant of Teso or Lango fills out during a long period of confinement in Luzira Prison, until physically he closely resembles members of sturdier tribes.

6. Measures aimed at improving the nutritional state of Uganda natives can, therefore, be classified according as they are designed to prevent subnutrition or malnutrition, for in the more fertile regions it is the quality of the food supply, rather than the quantity, which requires adjustment.

B. Subnutrition.

7. The type of food crop which is especially valuable in the dry areas has two characteristics: first, it must allow of late harvesting, so that the consumption of stored foods is postponed for as long as possible; secondly, it should itself permit of storage with a minimum of deterioration. Of the crops at present in use, the sweet potato goes far to fulfil both these conditions and, in the present state of knowledge, deserves the help of official propaganda. Investigations have shown that health and physique are better in those families who farm a fair quantity of sweet potatoes in addition to millet or sorghum, but this must not be taken as an indication for its use to replace grain crops; its function is that of a secondary crop. The possibility of introducing alternative crops, such as that most valuable food, the soya bean, is being carefully considered but it is likely that the sweet potato will, for many years, play a useful part in the dietary.

C. Malnutrition.

10. The signs of malnutrition are commonly seen even in the most fertile parts of Uganda. Thus, in one part of Kigezi, where abundant food crops are grown almost throughout the year, 10% of the population examined was suffering from leg ulcer, and over 16% from obvious Vitamin A deficiency. In spite of this, the physique was in most cases excellent, proving that food was deficient in quality and not in quantity. It was further found that the vitamin deficiency was practically confined to males, owing to the greater consumption of green vegetables (which grow wild in profusion) by females. Again, some 5 miles away, there was a lake: those who lived on the islands and ate fish for a part of the year, showed no sign of present or past leg ulcer, while their relatives, who dwelt at the lake side and were not in the habit of eating fish, suffered from this complaint in the usual proportion. It is obvious, therefore, that preventable deficiency disease can and does occur in the midst of plenty and that, with the co-operation of those in authority, it would cease to exist. A few suggestions are made in the next paragraph; much avoidable sickness in nearly every part of the country could be prevented by their adoption.

D. The Improvement of Local Diets.

11. (i) *Fish*.—This valuable food, though plentiful in Uganda, is eaten far too rarely. The major portion of the fish smoked or salted in Katwe is exported outside Uganda, while Africans in the vicinity are suffering from deficiency of good protein and calcium; both these deficiencies would be made good by the addition of fish to local diets. It is suggested that this anomalous state of affairs could be, to a great extent, remedied by the following means:—

(a) By the purchase of Katwe fish and their distribution in the remoter parts of other districts. This measure would entail increased expenditure while becoming popularised, for the fish would presumably have to be sold at a loss in the first instance. This loss would be more apparent than real; the expenditure would be productive of physical fitness, and a support for a home industry.

(b) By the establishment of local fishing industries on Lakes Kioga, Bunyoni, etc. Provided that the output were absorbed, this measure could be made productive of revenue.

(iii) *Green, leafy foods.*—These are well liked by the majority of Africans, and the question to be considered is one of availability. *It should be more generally known that the leaves of young sweet potatoes and cassava (manioc) are valuable protective foods, as well as being palatable to the majority of Africans.* Hence, in dry areas these leaves may be of great value in tiding over at least a part of the dry season. The encouragement of small vegetable gardens should also be considered, especially at schools, as should the popularisation of green foods among males.

(iv) *Meat.*—There is no doubt that the consumption of meat in Uganda is increasing steadily. Nevertheless, there is still room for improvement in this respect in many parts of the country, and efforts to encourage the slaughter of cattle, sheep and goats for meat should be continued. It is especially desirable that employers of labour should understand that meat in the diet of their employees increases efficiency and may actually pay for more than its own cost.

12. Although a detailed list of diets suitable for various parts of Uganda might be helpful, it would be, if only by reason of its length, outside the scope of this report. Nevertheless, it has been suggested that administrative officers might welcome a broad outline of diets which, though not ideal, would be a distinct improvement on present practice.

(i) For Africans whose staple foods are plantains and sweet potatoes:—

The daily diet should contain—

Staple foods	...	...	...	70%.
Beans, peas, groundnuts, sim-sim	...	...	...	20%.
Meat or Fish	...	...	...	10%.

(ii) For Africans whose staple foods are millet and sorghum:—

The daily diet should contain—

Staple foods	...	...	...	50%.
Sweet potatoes	...	...	...	20%.
Beans, peas, groundnuts, sim-sim	...	...	...	20%.
Meat or Fish	...	...	...	10%.

In addition, green, leafy vegetables should be eaten daily, where available and the consumption of fruit encouraged. In this connection, the planting of mangoes might usefully be extended in many parts of Uganda.

Growing children require milk as well as their share of the diets outlined above; about one half to one pint daily is usually recommended, depending on the age of the child.