# REPORTS AND ENQUIRIES

## The Nutrition of Indigenous Workers

An early consequence of the war will be—and indeed is already a greatly increased demand on the man-power of the colonies. On the one hand, large numbers of men are required for military purposes; on the other hand, the intensification of the production of foodstuffs, agricultural raw materials, and minerals, involves new and large demands on the labour power of indigenous communities both for independent production and for wage-earning employment. Two pieces of recent information give some idea of the proportions the demand for labour is likely to assume: the French Minister for the Colonies ordered the Governors of the French colonies to furnish 3,500,000 tons of foodstuffs from the 1939 crops, and 800,000 tons of industrial raw materials; Mr. Moeller, an honorary Vice-Governor-General of the Belgian Congo, who has several times represented Congo employers at the International Labour Conference. foreshadows in a recent article the increased production in the Belgian Congo of a large number of agricultural and mineral products necessary for Belgium's war economy. 1

It is not intended in this article to attempt to survey the whole range of serious problems to which the increased demand for indigenous labour will inevitably give rise. Some recent publications, however, give opportune warning of the great importance of one series of these problems: that of the nutrition of indigenous workers; it is to these problems that it is proposed to refer in this article in the form of a summary of the relevant information contained in the publications mentioned, supplemented by information from other sources.

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"Improper feeding was undoubtedly largely responsible for the terrible mortality among the East African Carrier Corps during the earlier part of the War." This is one of many statements, emphasising the practical consequences of malnutrition, made by the Committee on Nutrition in the Colonial Empire, which was appointed by the British Government in October 1936 and which reported to Parliament in July 1939. The report is accompanied by a summary of information on nutrition in the various British dependencies; in many of these dependencies, special reports on local nutrition

<sup>&</sup>lt;sup>1</sup> Bulletin quotidien, issued by the French Ministry for the Colonies, 18 September 1939, No. 347.

have recently been published by the Governments. <sup>1</sup> The publication of a valuable field study of diet in an African community, undertaken from the anthropological viewpoint, is also of recent date. <sup>2</sup> The present article, mainly based on these new publications, is a continuation of the summary of problems of workers' nutrition in Africa already published in the *Review* and supplements the references to dependent peoples contained in the Office's 1936 report on workers' nutrition and social policy. <sup>3</sup>

## GENERAL FACTORS AFFECTING NUTRITION IN THE COLONIES

The British Colonial Nutrition Committee had to examine information from no less than 48 different territories, with a total area of over 2 million square miles and a population of more than 55 millions of people of the most diverse ethnological origin and living under widely differing economic conditions.

Two opposite trends of a demographic nature are to be found. In some territories (Ceylon, Jamaica, Malta, St. Vincent, and Trinidad), the populations have increased by an average of more than 24 per cent. between 1921 and 1937 and the limited economic resources have thereby been strained. On the other hand, in parts of Africa and in the Western Pacific, poverty may in large part be ascribed to under-population, and the demographic increase over a period of years, characterised by no major epidemics, has verged on the negligible.

The vicious circle of lethargy partly caused by malnutrition and malnutrition resulting in lethargy is to be found in both cases. A Governor of Trinidad, commenting on the nutrition of the East Indian population of that island, described the condition of the people as one of "lethargy only broken in times of disorder". <sup>4</sup> Dr. Richards' description of a tribe in a sparsely populated part of Central Africa gives a picture of nutritional poverty resulting from an unwillingness or psychological inability to produce more food on the part of an agricultural people who work in their gardens generally for not more than four hours in the day.

Whatever the demographic situation, the problem of nutrition in the colonies is largely economic. The British Committee puts it as follows:

<sup>&</sup>lt;sup>1</sup> Great Britain: Economic Advisory Council: Committee on Nutrition in the Colonial Empire. Part I: Nutrition in the Colonial Empire. Part II: Summary of Information Regarding Nutrition in the Colonial Empire. With Special Reference to the Replies received to the Circular Despatch from the Secretary of State for the Colonies, dated 18th April, 1936. His Majesty's Stationery Office, London, 1939. A list of the local reports on nutrition is given in the second of these publications.

<sup>&</sup>lt;sup>2</sup> Audrey I. Richards: Land, Labour and Diet in Northern Rhodesia. An Economic Study of the Bemba Tribe. Oxford University Press, London, New York, Toronto, 1939.

<sup>&</sup>lt;sup>8</sup> Cf. International Labour Review, Vol. XXXIV, No. 3, Sept. 1936, pp. 369-376; Workers' Nutrition and Social Policy, Studies and Reports, Series B (Economic and Social Conditions), No. 23, Geneva, 1936.

<sup>&</sup>lt;sup>4</sup> Trinidad and Tobago Disturbances, 1937. Report of Commission.

There is no doubt in our minds that over a large part of the Colonial Empire one of the most important causes of malnutrition is the low standard of living of many of its inhabitants. The food-stuffs which they themselves produce, supplemented by money obtained from the sale of produce, wages, or some other source, is very often insufficient to provide adequate nutrition in addition to all their other needs. Ignorance no doubt is also a very important factor in the problem.... But when all is said and done we cannot get away from the fact that the present economic level is, broadly speaking, not high enough. The problem is fundamentally an economic problem. Malnutrition will never be cured until the peoples of the Colonial Empire command far greater resources than they do at present.

While Dr. Richards stresses the anthropological background of the problem, she finds in this setting the importance of social and economic factors in determining the nature and amounts of Native diets:

It is an unfortunate fact that the diet of many primitive peoples has deteriorated in contact with white civilisation.... areas, the new use of European foods... has robbed the people of many of the most valuable constituents of their former diet. The sudden development of industrialisation in Africa, as in India and elsewhere, has invariably led to a lightning growth of the town populations...existing in conditions of extreme poverty. rural districts the diet situation is equally alarming. In many parts of Africa the Natives are trying to produce the same amount of food as they did formerly from lands that have been cut down to a fraction of their original size, and are thus heavily overstocked and often badly eroded. Their nutritional habits and economic ambitions make some of them unwilling to slaughter their beasts or to adopt modern agricultural methods which might enable them, temporarily or permanently, to make an adequate living on the smaller acreage available to them. Others have not the necessary knowledge to enable them to do so. The male labour supply of tribes in many rural areas of Nyasaland, Northern Rhodesia and the Union has been halved by constant migration to or from the mines to the country, and in such cases agricultural production has inevitably decreased. The desire for money and European goods has destroyed the old incentives to food production. Small wonder that the medical officers report that the physique of Natives, whether in the town or the country, is actually deteriorating and that the proportion of definite malnutrition is on the increase.

### NUTRITION AND LABOUR EFFICIENCY

The British Committee stresses the extent to which food deficiencies may not only cause recognised deficiency diseases but also lead to general ill-health, lowered resistance, and impaired efficiency and well-being. "We do not doubt that if it were possible (as unfortunately it is not) to remove at one stroke all traces of malnutrition in the Colonial Empire there would be an immense gain in physical health, in mental alertness and in material welfare. Money spent on improving nutrition should be a sound investment, yielding its

dividend in the increased welfare of the community as a whole."

It may be of value to give here some examples of the effect specifically on efficiency of malnutrition and of the improvements in efficiency which have been noted as accompanying improved nutrition.

Within an African community the effects of food shortage are described as follows by Dr. Richards:

The direct effects of the shortage on the people's work output was illustrated in striking fashion during the recent locust raids (1933-34), when the gardens of some villages were destroyed and others less than a day's journey off escaped. For instance, at Candamukulu in April, where the people's gardens had escaped damage, they rose at six, cut trees to clear their gardens, rebuilt their houses and gave an impression of constant activity and busyness. Sixty miles off, at a settlement that had empty granaries and ravished gardens, the people had not yet started the work of the year at all.

As regards the labour supply for European employment, Dr. F. W. Fox of the South African Institute for Medical Research has put the position as follows:

As yet the enormous economic significance of these matters has not been commonly recognised in this country, but already the importance of the health and well-being of the Native population considered merely because of their value as a supply of labour is beginning to receive attention. We are convinced that the shortage of labour which has caused so much disturbance recently will tend to become worse unless more consideration is given to the nutritional foundations upon which the labourer depends, since the supply is by no means as inexhaustible as is imagined.

In giving evidence before the South African Native Farm Labour Committee the Deputy Chief Health Officer of South Africa, referring to complaints of inefficiency, indolence, and lack of interest, of Native farm workers, "declared that this could be directly attributed to their malnutrition. Their vitality was sapped by an exclusively starch diet." <sup>2</sup>

The summary of information on nutrition in Trinidad, contained in Part II of the British Committee's report, states that there are numerous instances of estates where a 20 per cent. greater efficiency on the part of labourers might prove the determining factor in the maintenance of the estates. "It is in this connection that nutrition assumes real practical importance. If, owing to improved health, the labourer can, without more cost to the owner and without more strain to himself, give, say, 20 per cent. more work, the estates, that in the aggregate form a valuable asset, will be retained to the benefit of the Colony in general and the labourer in particular."

A more precise statement to a similar effect is given in the summary of nutrition conditions in Northern Rhodesia:

The mining companies pass through their hands a continuous stream of Natives from more than one area, and general malnutri-

<sup>&</sup>lt;sup>1</sup> The Star, Johannesburg, 13 Sept. 1938.

<sup>&</sup>lt;sup>2</sup> Cape Times, 4 Feb. 1938.

tion is a common cause of rejection. In a group of 589 accepted adult male recruits, the average weight was 9 st. 2 lb.... Almost without exception increase in weight follows the full and regular diet provided at the mines. The Rhokana Corporation, who have given particular attention to this matter, are improving their existing dietary scales in the direction of reducing total calories by decreasing the supply of meal and beans but at the same time improving the health value of the diet by increasing the supply of meat and fat. On the basis of 6,000 employees, this improvement will cost £7,526 a year more than the former diet, regarding which the Manager writes: "If an increased efficiency of so little as 5 per cent. could be guaranteed by the balanced dietary advocated, it would be a sound economic proposition."

The British Committee refers to conditions on the Rand gold mines, where "records have been kept of over 20,000 discharged workers, of whom over 66 per cent. gained substantially in weight during their term of residence in the mines of six months or more, the average gain in weight being nearly 7 lb." It also notes the striking improvements in health and efficiency which have accompanied improved rations in Kenya, Tanganyika, and Zanzibar. In Tanganyika, for example: "One large employer of labour used to reckon that of his total labour force only from 45 to 50 per cent. could be relied upon to turn out for work on any one day. More recently, it is reported, the figure has increased to over 90 per cent., the increase, it is said, being due solely to an improvement in the diet given."

## WAGES AND NUTRITION

The British Committee examines the question of wages and nutrition. It notes that "there is unfortunately abundant evidence that in some occupations where it is not customary to provide the employee and his family with food the wages earned are not sufficient to provide adequate nutrition for the worker and his family". The Committee recognises that increased wages may well be justifiable as a purely economic proposition. It is unable, however, to make any recommendation on wage rates, owing to the possibility that in some cases an increase would 'ead to less employment and that, secondly, any increase in wages would not necessarily be spent on improved nutrition.

On the first point, interesting comment is offered in a report on labour conditions in the West Indies resulting from a visit of the Labour Adviser to the Secretary of State for the Colonies.¹ He considers that any estimate of conditions founded upon consideration of the wage rate alone will be erroneous and misleading. "The only true valuation must be based upon a combination of the wage rate, the cost of living and the availability of employment." He adds that: "The wage rate in the West Indies is in many cases undeniably low; nevertheless, in comparison with the moderate cost of living it would frequently suffice to maintain the worker in fair comfort

<sup>&</sup>lt;sup>1</sup> Labout Conditions in the West Indies. Report by Major G. St. J. Orde Browne, O.B.E.

were it not for the constant depressing effect of intermittent employment." Another factor to which he alludes is the frequency in the colonies with which work suitable only for juveniles and beginners is done by men who have held their posts for a number of years. "A typical instance was provided by the telegraph 'boy' of 28, who complained to me that his wages were insufficient for the support of his family; as this consisted of ten members, the plea was obviously well-founded. Nevertheless, the Post Office had no vacancy for the man, who lacked qualifications for a superior post, and he therefore continued to work in a position from which he should have progressed ten years earlier."

The British Committee, while making no recommendation on the subject of wage rates, states: "We feel that we need have less hesitation in regard to various measures whereby Governments and private employers can contribute to the better nutrition of their labourers... Proper feeding, proper housing, proper hygiene and proper attention to the habits and customs of the labourer: these are as important as questions relating to hours of work and rates of pay in securing a contented and efficient labour force and, of these, proper feeding is certainly not the least important."

## SUPPLY OF RATIONS BY EMPLOYERS

In many parts of the colonies, the workers are supplied with food by their employers, in addition to wages. This may be a legal obligation imposed by law, or a legal obligation resulting from the terms of the contract, or it may be based on custom.

Examples of the legal obligation, to be found in the Belgian Congo, in British Central and East Africa, in French, Portuguese and Spanish Africa, and in the Union of South Africa, have already been given in the *Review*. Similar obligations are also to be found in the East <sup>2</sup> and for certain employments in colonies in America. <sup>3</sup>

The British Committee considers that the provision of food by employers should be extended to certain colonial areas where the development of paid labour is proceeding at a rapid rate. It would seem that the Committee has particularly in mind conditions on the Gold Coast mines. Here the mine worker feeds himself from his cash wages and the possible connection between faulty feeding and labour inefficiency was noted in 1936 by an official of the International Labour Office who visited West Africa.

The British Committee also emphasises the necessity, where food is provided by the employer, of making sure that such food is adequate and well-balanced:

A law which provides merely that adequate rations must be given is not sufficient unless backed up by detailed measures to ensure that the term is properly interpreted by the employer. At present it is often interpreted as meaning no more than so many pounds of maize meal or other cereal with a little salt and possibly

<sup>3</sup> British Guiana and British Honduras.

<sup>&</sup>lt;sup>1</sup> Cf. International Labour Review, Vol. XXXIV, No. 3, Sept. 1936, p. 371.

<sup>&</sup>lt;sup>2</sup> Indo-China, Netherlands Indies, and Pacific dependencies.

a few vegetables and meat if available. We recommend that the Governments of all African territories—and of any other territory where the labourer is fed by the employer—should provide as soon as possible that, where the labour contract provides for rations to be given to labourers, either by Government or by any other employer of labour, they should not be below a scale approved by the Health Department as being sufficient to provide a well-balanced diet, having regard to modern nutritional knowledge and the normal diet of the employee.

This necessity has been noted elsewhere. In South Africa, while there is a compulsory ration scale for Native labourers such as those employed on the Transvaal mines, the obligation of farmers to supply rations is expressed only in general terms. According to the Native Farm Labour Committee: "Farmers fail to realise the importance of appropriate diet to the human body, particularly when hard work has to be performed. Many complaints were heard as to the lack of zeal, energy, intelligence or initiative of Natives in the performance of their work. According to the medical evidence it is probable that this is due to impaired vitality owing to malnutrition." 1

A more peculiar situation is sometimes met. In the mahogany industry in British Honduras the Labour Adviser to the Secretary of State for the Colonies notes that an old—established custom, dating from slave days, results in the issue of a basic ration consisting of 7 qt. of flour and 4 lb. of pork a week. This naturally has to be supplemented largely by purchases or, alternatively, by exchange of part of the ration. He advises that early investigation be undertaken with a view to the replacement of this custom by a proper diet scale.

A few sample diet scales are given in the appendix to this note. From that of the *Union Minière* in the Belgian Congo it will be seen that provision is made for the supply of food to the workers' wives and children. This is also the practice on Northern Rhodesian mines and in some instances in Ceylon and Malaya. The British Committee commends such action but holds that the employers cannot be expected to feed all dependants. Perhaps a case for an obligation may arise when long-term contract workers are authorised to bring their wives and children to the place of employment. For the Belgian Congo a former chief medical inspector has made a proposal to this effect. <sup>2</sup> Quite apart from the social aspect of the problem, a question of labour efficiency is involved. If rations are issued only to the workers and no provision is made for the needs of the family, a married man will share his ration and may remain himself underfed.

Another question is whether the food should in general be issued cooked or raw. Where single workers are concerned it would seem, as stated by the British Committee, that the clear balance of advantage lies with the giving of food ready cooked.

<sup>&</sup>lt;sup>1</sup> Union of South Africa: Report of the Native Farm Labour Committee, 1937-39.

<sup>&</sup>lt;sup>2</sup> Dr. Trolli: "L'Alimentation chez les travailleurs indigènes dans les exploitations commerciales, agricoles, industrielles et minières au Congo", in *Africa*, April 1936.

Experience in Northern Rhodesia has been reported as follows:

It was found that single Natives neglected to cook the food properly and, as in many cases they had no female relatives living in the compound, it meant that these Natives were eating food raw. They were too tired to seek firewood or carry the necessary water for their cooking, and meat was often discovered hanging from the roof of the hut covered with flies. This was an extremely undesirable state of affairs, and the health of single Natives was suffering as a result. It was revealed by hospital figures that for every married Native who was admitted to the hospital there were two single Natives admitted. Cooking the food for single men has brought about very good results, and there is no doubt that there is an improvement in their general physique.

To this may be added that indigenous workers will not infrequently refuse to eat valuable food constituents to which they are unaccustomed. If these are provided cooked with other food they are readily accepted.

## OTHER ACTION BY EMPLOYERS

Nevertheless, the provision of food by employers is not general in the colonies and should not become so. The British Committee reports that, however valuable and necessary may be the feeding of labour by the employer as an interim policy designed to promote an immediate improvement in physical well-being and as a convenient practical means of introducing a better diet, on wider grounds its perpetuation may prove undesirable. "We do not for one moment intend to recommend a condition of perpetual dependence by the employee on the employer as in itself desirable. Obviously a preferable alternative would be the education and advancement of the labourer and his family so that when he freely exercises his own choice his choice of a diet is a good one, and he has the money to buy it."

The Committee suggests that where full rations are not issued the employers may assist by such measures as the provision of gardens; the distribution of foodstuffs deficient in the local diet, the storage of food, and the encouragement of agricultural industries near employment areas. The administrations, it is held, might also assist

<sup>&</sup>lt;sup>1</sup> F. SPEARPOINT: The African Native and the Rhodesian Copper Mines. Supplement to the Journal of the Royal African Society, July 1937. Cf. The Autobiography of Sir Henry Morton Stanley, the African explorer, on conditions in the Confederate army during the American Civil War: "The Dixie Greys, for instance, consisted mostly of young men and lads who were as ignorant of the art of converting their ration of raw beef and salt pork, field beans and flour, into digestible food, as they were of laundry work; yet they were daily served with rations, which they might eat raw or treat as they liked. Of course, they learnt how to cook in time; but meanwhile they made sorry messes of it, and suffered accordingly. Those with good constitutions survived their apprenticeship, and youth, open air, and exercise, enabled them to bear it a long time; but when, with improper food, the elements chilled and heated us with abrupt change, and arbitrary officialism employed its wits to keep us perpetually on the move, it becomes evident, now, why only the hardiest were enabled to bear the drudgery and vexation imposed upon them, and why disease slew more than two-thirds of the whole number of soldiers who perished during the war."

by ensuring freedom from import duties and cheap freight rates for food of nutritive value which cannot be produced locally.

The essence of the Committee's proposals regarding the provision of gardens is as follows:

Where a labourer for wages is more or less permanently employed on an estate, as in the West Indies, Mauritius, parts of East Africa and Malaya, the estate-owner should normally provide him with land for a garden and perhaps even require him to make full use of it; in appropriate cases the owner should also permit or even require the maintenance of animals for the production of meat or milk products. . . . In some territories it may in fact be necessary to require by law that a certain proportion of estates should be given over to the production of foodstuffs owned by the estates themselves or by co-operation with resident labourers.

## TRUCK SYSTEM

The British Committee is not unaware that a form of the truck system may result from the excessive dependence of workers on employers. Its comments on this danger require quotation in full:

There are dangers in several of the above recommendations and some care on the part of Government may be necessary to ensure that the evils of the truck system do not creep in. The essence of the truck system is that the labourer is paid part of his wages in the form of credits at a store run by his employer or that he is otherwise compelled to buy the necessities of life from his employer. There is legislation in most Dependencies to prevent this and we do not think that our recommendations are likely to open the door to serious abuses. In some of the colonial truck laws provision already occurs on the following lines:

"Nothing in this Ordinance shall render illegal an agreement or contract for giving to him food, a dwelling place or other allowances or privileges in addition to money wages as a remuneration for his

services.'

Our recommendations do not go beyond this. The essential points are (1) that any food or perquisites given shall be additional to wages and not in lieu of wages and (2) that there shall be no compulsion on the employee to spend his money in any particular manner that may be desired by the employer.

The above argument has much justification in some present conditions where the need of improving diet is urgent; it may have increased justification in conditions of wartime economy. To a certain extent, however, it appears to overestimate the effective value of legislation directed against the truck system in territories where labour inspection is hardly adequate. It also tends to minimise the problems which arise (for example, in the West Indies) where a system of free labour has recently taken the place of the contract labour system and the obligations of the employer, in the past determined by law or the terms of the contract, have been replaced by ill-defined customs.

## GENERAL

It would be misleading not to make it clear that the fact that this article is concerned chiefly with the nutrition of the worker in employment in no way implies that this is more than one aspect of the problem of nutrition in the colonies. Whole populations are suffering from malnutrition. Measures securing better standards for the whole population cannot fail to raise the physique of the labour supply. Measures taken for employed workers alone will be merely palliatives of the general problem.

The feeding of the colonial worker in employment, however, for three reasons deserves prominence. In the first place, it is the aspect of the general problem which in most cases can be tackled most rapidly and effectively. In the second place, the revolutionary change of habits often involved when an indigenous worker accepts employment of a Western type greatly increases the immediate dangers of malnutrition. Thirdly, in a wartime colonial economy it is on the worker in employment that is likely to fall the most urgent demands for increased production and therefore increased efficiency.

## APPENDIX

#### DIET SCALES

Northern Rhodesia.

The following table <sup>1</sup> gives in daily amounts (1) an estimate of village diet in a part of North-Eastern Rhodesia, (2) the Government ration scale for Natives employed on mines and works, and (3) a proposed new scale prepared by the Rhokana Corporation.

Foodstuff	Village diet (ounces)	Government scale (ounces)	Rhokana (ounces)
Cereal (maize or millet)	12.8	24	16
Wheat bread			6
Pulses (various)	0.016	4	4.5
Ground-nuts	0.016	1	1
Green vegetables	not estimated	5	6.7
Meat	0.25	4.6	1 <b>2</b>
Fat	_	0.5	0.7
Salt	occasional	0.5	0.5
Beer	8		20
Total calories (per day)	1,706	4,313	3,663

Union of South Africa.

The following 2 is in shortened form the minimum ration scale for Native labourers in the Transyaal.

Foodstuff	Minimum allowance	
_	-	
Cereal (maize meal)	24 oz. per day	
Bread	6 oz. per day	
Beans or peas <sup>8</sup>	3 oz. per day	
Ground-nuts 3	2 oz. per day	
Meat <sup>8</sup>	3¾ lb. per week	
Fresh vegetables	5 oz. per day	
Coffee or cocoa	1/6 oz. per ration with sugar	
Salt	Sufficient	

The total calorie value of the above ration is about 4,400 per day.

<sup>1</sup> Audrey I. RICHARDS : op. cit.

<sup>&</sup>lt;sup>2</sup> Union of South Africa Government Notice No. 37 of 5 January 1922.

<sup>&</sup>lt;sup>2</sup> Certain named alternatives permitted (e.g. fish for meat).

## Belgian Congo.

In the Katanga Province the model scale of rations established by the Government provides for the daily supply of 100 grams (3.5 oz.) proteins, 600 grams (21.6 oz.) carbohydrates, 75 grams (2.3 oz.) fat, 150 grams (4.6 oz.) fresh vegetables or fruit, and 15 grams (.5 oz.) salt, the total calorie value being about 3,600. The *Union Minière du Haut-Katanga* provides to men and their wives a ration which translated into approximate daily amounts is as follows (food is also supplied to children; expectant and nursing mothers receive a double ration) <sup>2</sup>:

Foodstuff	Workers' allowance	Wives' allowance
Maize meal	700 grs. (25 oz.)	350 grs. (22.5 oz.)
Sweet potatoes	215 grs. (7.5 oz.)	<u> </u>
Ground-nuts	21.5 grs. (.75 oz.)	
Vegetables or fruits	70 grs. (2.5 oz.)	
Meat	200 grs. (7.0 oz.)	150 grs. (3.5 oz.)
Palm oil	28.5 grs. (1 oz.)	<del>_</del>
Salt	15 grs. (.55 oz.)	7.5 grs. (.27 oz.)
Sugar	7 grs. (.25 oz.)	<u> </u>

#### Barbados.

The following table 3 shows the average diets per head per week purchased in a West Indian colony by workers spending (1) 2s. 6d. per head per week on food, (2) between 2s. 6d. and 4s. 2d., and (3) over 4s. 2d.

		Purchases	
Foodstuffs	Class 1	Class 2	Class 3
A. Carbohydrates	lb. oz.	lb. oz.	lb oz.
Rice Flours and other cereals Potatoes, yams, etc. Sugar	$ \begin{array}{ccc} 2 & 10^{1}/_{2} \\ 1 & 6 \\ 2 & 8 \\ 1 & 3 \end{array} $	$egin{array}{cccc} 3 & 9\frac{3}{4} \\ 2 & 14 \\ 2 & 14 \\ 1 & 14 \\ \end{array}$	4 9 6 3 6 14 2 0
B. Fats		•	
Cooking oil, etc. Butter	$\begin{array}{ccc} 0 & 5^{1}/_{2} \\ 0 & 1^{1}/_{3} \end{array}$	$\begin{array}{cc} 0 & 9^1/_2 \\ 0 & 3 \end{array}$	$\begin{array}{cc}0&12\\0&4\end{array}$
C. Proteins		•	
Salt pork or beef Salt fish Other meat	$ \begin{array}{ccc} 0 & 4^{1}/_{2} \\ 0 & 8 \\ 0 & 7 \end{array} $	$\begin{array}{ccc} 0 & 3\frac{3}{4} \\ 1 & 1\frac{1}{4} \\ 1 & 0 \end{array}$	1 9 1 4
D. Combined foods			
Dried peas Milk Tea, cocoa, etc. Eggs	$ \begin{array}{cccc} 0 & 5 \\ 0 & 10 \\ 0 & 0\frac{1}{4} \\ - \end{array} $	$\begin{array}{ccc} 0 & 10 \\ 1 & 4^{1}/_{2} \\ 0 & 0^{1}/_{2} \end{array}$	$\begin{array}{ccc} 0 & 14 \\ 1 & 11 \\ 0 & 0^1/_2 \\ 0 & 0^1/_2 \end{array}$
E. Other foods, including salt	0 83/4	1 43/4	0 121/2

The total calorie value per day of the above diets is estimated to be as follows for the three classes: (1) 1,962, (2) 3,065, (3) 4,758.

<sup>&</sup>lt;sup>1</sup> Belgian Congo, Katanga Province, Ordinance No. 80 of 30 August 1932.

<sup>&</sup>lt;sup>2</sup> Table based on Dr. Giovanni Troll: op. cit.

<sup>&</sup>lt;sup>3</sup> Based on tables given in the Report of the Committee appointed to consider and report on the question of nutrition in Barbados. Supplement to Barbados Official Gazette, 7 Oct. 1937.