THE BRITISH GROUNDNUT SCHEME:
A STUDY IN AGRARIAN PLANNING

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CHAPTER I

INTRODUCTION

Vegetable oil, a major source of the world's food supply, was in great demand following World War II. Great Britain was especially hard pressed. She hoped to solve her problems by raising groundnuts on a large scale in her African Territories. The project would cost millions of pounds for machinery, labor, transportation, communications, and social services for the native African laborer.

It was hoped among people in Great Britain that the groundnut scheme would have widely beneficial results. Leaders in the British government hoped to provide an abundance of vegetable oil from imperial regions for the British housewife and to save much-needed foreign exchange which had formerly been expended for edible oils. British laborers were exhilarated by the thought of participating in a project of unusual magnitude. Those persons who were interested in the imperial territories anticipated raising the standard of living among natives in Africa by reclaiming land in wasted areas, providing supplies of water in arid regions, and introducing schools and hospitals in backward lands.

As the groundnut project was put into effect, it caused discouragement among many. The machinery was inadequate, and there were no means to repair broken equipment.

Frequently the soil was not of the best type for growing groundnuts, and the wet and dry seasons caused new headaches. The management of the project lacked practical experience and the leaders displayed inadequate foresight. The planning by the government was ineffective and caused many delays and setbacks. Homes and schools for the workers were not forthcoming when promised. Despite discouragement, many workers pushed ahead at an increased tempo in an attempt to reach deadlines, but to no avail.

That the groundnut scheme ended in failure is an inevitable conclusion. Not one of the ends for which it was undertaken was achieved. This conclusion is not intended to be universal, to imply that all agricultural projects controlled and financed through public auspices are doomed to failure, but only to show that in this one instance, a "socialized" agricultural project did not pay off.

CHAPTER II

THE INCEPTION AND IMPLEMENTATION OF THE BRITISH GROUNDNUT SCHEME: JUNE, 1946 TO DECEMBER, 1948

Shortly after World War II, food shortage was a serious problem. Malthus' theory of population expanding geometrically and of food production growing arithmetically seemed to be a reality. The world was hungry, and one of the major items in demand was vegetable oil. The total world shortage of fats and oil amounted to about 400,000,000 tons annually. Great Britain had a deficiency of more than 1,250,000 tons each year.[1]

The shortage of this one item was quite severe for various reasons. Western Europe was not able to produce enough for her own needs because of the ravages of the Second World War. Whaling was a major source of oil, but as restrictions were placed upon whale hunting, production declined. The production of butter, another prime source of oil, also declined. More people in England and the United States were consuming larger quantities of whole milk, leaving less for the production of butter. The standard of living was rising

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[1]Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechnized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H. M. Stationery Office, 1948), p. 18.

slowly in many parts of the world, especially among oil-producing countries. Nations which enjoyed improvement in living standards used more of their own oil and exported less of it.[2] For example, in India, a large producer of fats and oils, the annual per capita use of such products increased from eight pounds in 1940 to nine pounds in 1946. Formerly, India had a yearly surplus of one million tons of vegetable oil for export, but this surplus had dwindled to zero.[3] The cumulative effect of all of these facts caused a severe shortage of vegetable oil. Necessity demanded that a remedy be found.

Groundnuts[4] are one of the main sources of edible oils. They help supply fats in two ways. About forty per cent of the groundnut kernel comes out as oil when pressed and the residue can be made into cattle cake, thus encouraging dairy farming and a higher production of milk and butter.[5]

In March, 1946, a plan for growing groundnuts in the British colonies in South and Central Africa was submitted to

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[2]Kathleen Gibberd, "The Groundnut Scheme," Fortnightly Review, CLXIX (June, 1948), 411.

[3]Selwyn James, "Operation Peanut," The Christian Science Monitor Magazine Section, October 2, 1948, p. 2.

[4]Arachis Hypogaea, a leguminous plant with the fruit growing in a pod underground. Also known as the peanut or monkeynut.

[5]Alan Wood, The Groundnut Affair (London: The Bobley Head, 1950), p. 29.

the British government. The originator of this scheme was Mr. Frank Samuel, Managing Director of the United Africa Company, Ltd., a subsidiary of Unilever. Unilever was a producer of oil products such as margarine and soap, and thus had an interest in increasing the supply of oil for Great Britain.[6] Mr. R. W. R. Miller, Director of Agricultural Production for the British Empire, was quite enthusiastic about the idea. He suggested that not less than 100,000 acres be cultivated from the outset of the project, and that completely mechanized farming be used for the greatest efficiency.[7]

The British government sent a fact-finding committee to Africa to study the proposal. This group, which left on June 20, 1946, was to investigate South and Central Africa to determine if such an extensive plan was feasible. The leader of the committee was Mr. A. J. Wakefield, Director of Agriculture in Tanganyika Territory for eighteen years; and later he was Inspector General of Agriculture in the West Indies. The other committee members were Mr. J. Rosa, a member of the Colonial Office, and Mr. David L. Martin, Head of the Plantations Department of the United Africa Company

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[6]J. K. Matheson and E. W. Bovill (eds.), East Africa Agriculture: A Short Survey of the Agriculture of Kenya, Uganda, Tanganyika, and Zanzibar and of Its Principal Products (London: Oxford University Press, 1950), p. 114.

[7]Wood, op. cit., p. 27.

Ltd.[8] Although Mr. Wakefield was well qualified in the subject of scientific agriculture and Mr. Martin was an experienced planter, the mission included no one who possessed practical farming experience. This omission was undoubtedly one of the sources of the troubles which beset the scheme from the beginning.[9]

The mission spent nine weeks in Africa searching for suitable areas to implement the program for growing groundnuts. Four criteria were used in judging the usefulness of the areas for the proposed project. First, the climate, soil, and water supply were considered. The groundnut required light sandy soil; however, most virgin soil of this type was covered with dense vegetation. Difficulty would arise in clearing the heavily overgrown land. The second consideration was the problem of population, native rights, and ownership of the land. A densely populated area could not be used because of the problem of resettling the natives, nor could large tracts of land be purchased from the native tribes because of the expense involved. The third problem concerned the availability of communications. The groundnut

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[8]Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechanized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H. M. Stationery Office, 1948), p. 3.

[9]Matheson and Bovill, op. cit., p. 114.

farms could not be located in areas where no railway existed to haul equipment and supplies. Port facilities were necessary for unloading supplies and exporting groundnuts. Telephone and telegraph lines were essential to the project if communications between port and farm were to be maintained. The fourth and last requirement was that of finding adequate data as to land use, pests, plant diseases, and research.[10]

Using the aforementioned criteria as guides, the Wakefield Mission recommended two plots in Tanganyika Territory. One of the sites was in the Southern Province near Mikindani, and the other area was in the Western Province near Tabora. Some areas in Northern Rhodesia and Kenya were also recommended. It was believed that most of the areas selected in Tanganyika were so widely separated that they would not be affected simultaneously by drought, which was frequent in Africa. Uninhabited, tsetse-infested, and relatively dry areas therefore offered special attraction to the project, provided the soil was suitable and the moisture content was adequate.[11]

Tom Bain, a veteran farmer in Tanganyika, had raised a few acres of groundnuts in the Central Province near Kongwa. His trial plots averaged each year between twelve hundred

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[10]Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7030, p. 19.

[11]Ibid., pp. 21-22.

to two thousand pounds of nuts per acre. The Kongwa region averaged less than twenty inches of rainfall per year, the lowest in Tanganyika, but the groundnut required a minimum of twenty inches per season. The Wakefield Committee overlooked this fact and added the Konga area of 450,000 acres to the list of recommended sites.[12] This region also had better communications and railway lines than the other provinces of Tanganyika.[13]

The British government decided to use farm units consisting of 30,000 acres for the plan. Eighty such units, or 2,400,000 acres, were to be in Tanganyika Territory; ten units, or 300,000 acres, in Kenya; and 510,000 acres, or seventeen units, in Northern Rhodesia.[14]

Much land in Tanganyika Territory was unpopulated by natives and free for government use for several reasons. Tanganyika Territory contained 342,000 square miles, an area three times the size of Great Britain.[15] In 1948 there were 7,000,000 Africans in the Territory, but five-sixths of them lived on one-sixth of the land because of the lack of water

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[12] Wood, op. cit., pp. 37-38.

[13] Table I, p. 9, describes the various localities recommended for the groundnut units, and Map I, p. 10, shows the location of the selected plots.

[14] Edith Tilton Penrose, "A Great African Project," Scientific Monthly, LXVI (April, 1948), 322-23.

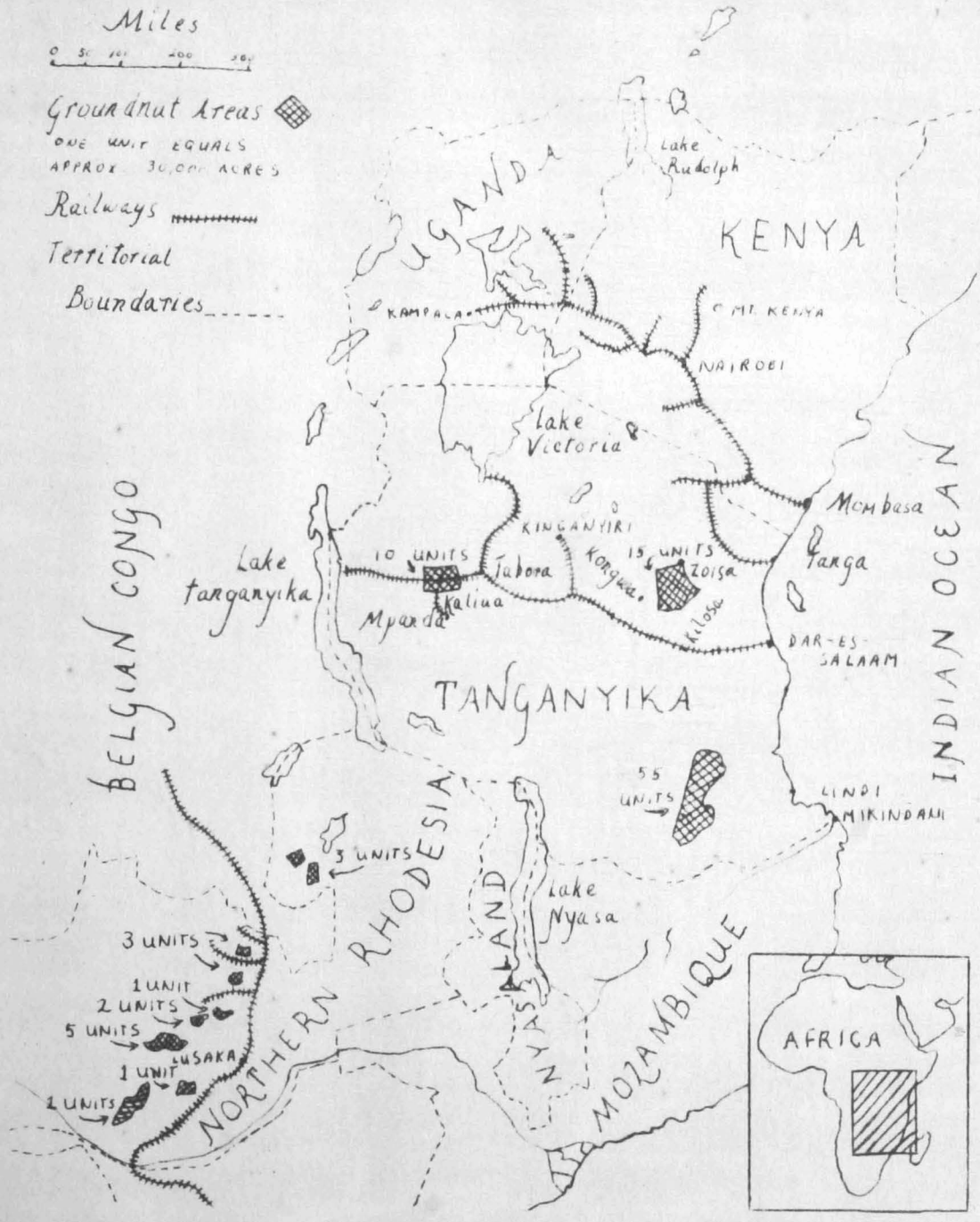
[15] Ibid., p. 324.

TABLE I +

DESCRIPTION OF THE LOCALITIES RECOMMENDED FOR THE GROUNDNUT UNITS

Locality	Central Map Position		Rainfall	Types of soil
	long.	lat.	inches	
I. Tanganyika Territory	E.	S.		
(1) Southern Province ... Masasi, Liwale, and Lilwa Districts ...	38°15	10°	30-40	Red sandy loam
			30-40	Light sandy
(2) Central Province ... Northern Mpwapwa	36 55	6	20-30	Red sandy loam
(3) Western Province-- " Tabora District	31 55	5 5	30-40	Light sandy
Note: No Native interests are involved in the areas required for groundnuts.				
II. Northern Rhodesia				
(1) Southern Province--				
(a) Mumbwa-C ..	27 30	15 15	30-35	Sandy loam
(b) South Lenge-B ..	27 50	14 50	30-35	Sandy loam
(c) Chisamba-A ..	28 15	14 50	30-40	Light sandy loam
(d) Magoya-A... ..	27 30	16 0	25-35	Strong sandy loam
(e) Mapanza-B ..	26 40	16 20	25-35	Sandy loam
(2) Western Province-- Ndola (2 areas)-A ..	28 32 and 28 20	13 and 12 40	40-50	Sandy loam
(3) Northern Province-- Kapalala (2 areas)-C	29 35 and 29 35	11 37 and 11 35	30-40	Light humic loam
Note: A- Crown Land; B- Native Reserve; C- Trust Land				
III. Kenya				
(1) Coast Province-- Malindi/Garsen area-A	40	2 35	30-40	Red sandy loam
(2) Rift-Valley Province- Keria Valley and ..	36 40	1 24	25-35	Red sandy loam
West Suk-B... ..	35	1 20	25-35	Red sandy loam
Note: A- Crown Land; B- Native Reserve				

+Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechanized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H. M. Stationery Office, 1948), p. 18.



MAP 1
LOCATION OF GROUNDNUT UNITS
Not Just Peanuts (New York: British Information Services, 1948), p. 7.

and the danger of the tsetse fly. Only about 6,500,000 acres, or three per cent of Tanganyika was under cultivation.[16] Soil erosion was a cause for the abandonment of wide areas of land. The cattle which the native people used as a monetary medium ate away the grass and destroyed the ground cover that had prevented the soil from being washed or blown away.

The Wakefield Committee hoped that by clearing the impenetrable bush area, the level of ground water would be raised and the tsetse fly would be eliminated.[17] The tsetse fly rather than the British government was the actual power which held Tanganyika in trust. The tsetse fly had a peculiar trait in that it could not fly over an open area, so that the clearing of the land would eliminate the fly and save many natives and cattle from death. If many natives were saved from death by the elimination of the tsetse fly, the standard of living would have to be raised to care for the increase in population. The second goal of the groundnut scheme was to help the natives reach a better living standard. This was the main objective of Mr. Wakefield, who was not primarily interested in growing groundnuts for the British housewife.

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[16] Wood, op. cit., pp. 24-27.

[17] Penrose, loc. cit.

The usual governmental agency to oversee developments within the British Empire was the Colonial Office. This was not the case with the groundnut scheme, however. The Ministry of Food was chosen to run the scheme rather than the Colonial Office for two reasons. The Food Ministry responded to public criticism quickly while the Colonial Office did not always tell the facts immediately. Also, many of the top executives in the Colonial Office, having served in their offices for several years, were weighed down by tradition and were less amenable to new ideas.[18] The Minister of Food was responsible for the finances, the appointing of agents and contractors, the providing of machinery, equipment and supplies, the procurement of new transport facilities, the disposal of the crops, and the amount spent on housing, health, education and welfare for employees. The Secretary of State for the Colonies was responsible for the general effects of the groundnut scheme on the territories, the welfare of the Africans, the effect of the scheme on wider colonial developments and the relationship of the Colonial government to its management.[19] Actually, the Ministry of Food was to oversee the groundnut project, while the

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[18] Wood, op. cit., p. 49.

[19] Great Britain, Parliament, House of Commons, Parliamentary Debates, Vol. CDXXXII (London: H. M. Stationery Office), cols. 1958-59.

Colonial Office was responsible for the effect the scheme would have on the British Empire.[20]

When the Wakefield Report was returned to the Ministry of Food, Mr. John Strachey was serving as head of that agency. Mr. Strachey had been appointed to the office in May, 1946, upon the resignation of Sir Benjamin Smith; thus, the project was under new leadership.[21]

Although a project of this magnitude was to cost a large amount, it was hoped the price paid by the British Government for groundnuts would be greatly reduced. The government hoped the total price of raising groundnuts per ton would be less than the amount paid on the world market. In 1946, the purchasing price of groundnuts from Asia averaged £ 32 per ton. The Wakefield Report predicted the price of nuts would rise for the next several years. If the British Government could grow groundnuts at a price below the world market, two objectives would be realized. The British housewife would have an ample supply of oil, and the money gained by the sale of the groundnuts would enhance the Exchequer. The Wakefield Committee estimated production costs per ton of shelled nuts delivered to the East African

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[20] Ibid.

[21] Strachey was a Marxian Socialist and had written a book, Why You Should Be a Socialist. The United States had refused to admit him to the country because of his Marxian views. [Wood, op. cit., pp. 39-40.]

port would be £ 14 5s. 6d., or less than one-half the world price. If 600,000 tons of groundnuts were delivered to Britain each season, this would create a savings of £ 10,000,000 annually. If the world price of groundnuts rose, the savings per ton would be even greater, for it was hoped production costs would remain stable after the initial expense had been paid.[22]

The Wakefield Committee had advised that the total capital cost of the project would be about £ 23,000,000.[23] An additional £ 2,500,000 would be necessary for railway, road, and port construction. Returns from the project would produce profits which would then aid the scheme in paying for itself and, it was hoped, in becoming a profitable venture after 1950 or 1951.[24]

The government showed the Wakefield Report to people with experience in agriculture and asked for revisions in the original report. Mr. A. L. Gladwell, who had built many airstrips in Tanganyika during World War II, was consulted about the cost of clearing the land. His estimate was £ 13 17s. 4d. per acre. This estimate, although higher than

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[22]Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7030, p. 22.

[23]Table II shows the estimate made by the government of the total clearing costs.

[24]Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7030, p. 9.

that given by the Wakefield Report, was lower than actual costs, because Mr. Gladwell's project had not required the clearing of roots. Experience proved the actual clearing cost to be ten times higher than the estimated amount.

TABLE II*

ESTIMATED COST OF ENTIRE SCHEME AND COST PER ACRE

Description	Total cost	Cost per acre
Clearing equipment	£ 4,160,000	£ 1 5s. 11d.
Clearing operations	8,255,000	2 111 5
Total	12,415,000	3 17 4
Installations	6,805,000	2 2 5
Agricultural machinery	4,755,000	1 9 9
Totals	£ 23,975,000	£ 7 9s. 6d.

*Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechanized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H. M. Stationery Office, 1948), p. 5.

A special section was added to the Wakefield Report by Mr. W. M. Crowther, Head of the Chemistry Department, Rothamsted Experimental Station, and Mr. Dunstan Skilleck, Principal, Wye Agricultural College. They cautioned the Ministry of Food that the average yield could easily be only 500 pounds of nuts per acre rather than the 850 planned for. They also pointed out that the rainfall was extremely doubtful, and that the implements used to raise groundnuts in the United States might not be suitable for work in Africa. The European workers, they advised, should be paid high wages to

attract only the most devoted and able men to the project. They felt the African people should aid in planning the project, thereby making it a co-operative venture.[25]

Some members of the British government were also skeptical of the success of the scheme. Sir William Batterskill, Governor of Tanganyika, believed many obstacles would have to be overcome for the project to be a success. He stated that the transportation system in Tanganyika would need to be expanded prior to beginning the actual planting. The existing transportation system was adequate for normal needs, but it would not be able to carry the additional burden of equipment, supplies, and groundnuts. Mr. Batterskill added a note of caution in his comment:

> This great groundnut scheme has captured people's imaginations, but I wonder whether people in England, . . . know how difficult will be the bringing of the scheme to a successful conclusion.[26]

The British government did not add these warnings to the original report, but agreed that the operators of the project would not be tied to the specific measures advised. This allowance left room for experimentation and changes necessitated by practical experience.

The Wakefield Report suggested that a Research Station be established to provide for better use of the soil and to

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[25]Wood, op. cit., pp. 48-49.

[26](London) Times, October 21, 1947, p. 4, column 4.

ensure the best crops. It also advised that the climate be studied carefully and that the rainfall be measured. Plant breeding was to be fostered in order to develop drought and disease resistant varieties of groundnuts. These projects were to go into effect during the actual fulfillment of the scheme and not previously.[27] If a Research Station had been erected before large scale planting, many costly mistakes might have been averted.

As the British government did not have the means of immediately implementing the scheme, the job was given to the United Africa Company, Ltd. The government was to furnish all the necessary supplies and the company was to be responsible for planting and harvesting the first crop. For this work, the company was not to make a profit. The government planned to borrow the necessary money from the Exchequer at a rate of two and one-half per cent interest annually for a period of twenty-five years. Over 3,000,000 acres of land were leased from the local authorities for periods of not less than twenty-five years, with option for renewal. The leases were held by the British government rather than by the United Africa Company, Ltd. The grant of vast acreages of land under long term lease to a private company would

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[27] Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7030, pp. 30-31.

have evoked strong protest from the public.[28]

The project was eventually to be turned over to the local governments and finally to the natives to be run on a co-operative basis. Dairy farming was planned to utilize the groundnut pulp and tops which were made into cattle cake. Oil mills for pressing the groundnuts were eventually planned for Africa. Later a plastics industry would also give employment to many Africans.[29] The project was to achieve many worthwhile goals for the African, and all the improvements were to cost the British taxpayer nothing. One source put it this way:

> As was to be expected, immense public interest was awakened throughout the British Empire in a scheme which was to confer so many benefits on humanity. It was to alleviate the world shortage of fats; it was to revolutionize the primitive agricultural methods of the African to the benefit of the whole continent, and it was to educate him in the management of agricultural, commercial and industrial undertakings. All this was to be achieved, not only without costs to the British taxpayer, but to the enrichment of the Exchequer. The picture which the Government presented to the world was one to stir the imagination and it unquestionably enhanced the prestige of the Government of the day.[30]

Approximately 150,000 acres of the African bush were to be cleared in time to plant a crop which could be harvested in the spring of 1948. Over 3,225,000 acres were to be cleared within six years. The predicted crop in 1952

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[28] Penrose, op. cit., p. 322.

[29] Ibid., p. 325.

[30] Matheson and Bovill, op. cit., p. 119.

would be almost 610,000 tons of groundnuts.[31]

If 150,000 acres were to be cleared within a few months, immediate steps had to be taken. Mr. David L. Martin, a member of the original Wakefield Commission, was appointed general manager of the scheme. Mr. A. J. Wakefield, leader of the fact-finding committee, was made director of welfare and social services for the African natives.

TABLE III*

SUGGESTED CLEARING AND PLANTING PROGRAMMES AND THE RESULTANT CROP ON THE BASIS OF 850 POUNDS OF SHELLED NUTS PER ACRE

Year	Acreage cleared annually	Acreage under groundnuts	Production in long tons
1947	150,000	150,000	-------
1948	450,000	600,000	56,920
1949	855,000	1,230,000	227,676
1950	855,000	1,605,000	466,735
1951	525,000	1,605,000	609,034
1952	375,000	1,605,000	609,034
Total	3,210,000	---------	-------

*Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechanized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H. M. Stationery Office, 1948), p. 5.

[31]Table III shows the suggested schedule for clearing, planting, and the resultant crops from 1947 through 1952.

The first problem confronting Mr. Martin was to obtain enough of the right equipment. England manufactured no heavy machinery such as was necessary for the project. The United States produced these machines, but the manufacturers had orders far in advance and could promise nothing for at least two years. Mr. Martin then traveled to Canada and was able to obtain enough heavy machinery to last for two seasons, but this equipment was not available for immediate use. Something had to be done if the scheme was to start on time. The British government was able to obtain some old tractors left over from World War II. Many had been left on the beaches in the Philippine Islands over two years before. They could be obtained for the project, but had to be sent to Great Britain to be reconditioned before shipment to Africa.

On February 4, 1947, the first party of "groundnutters" arrived at Dar-es-Salaam, the capital of Tanganyika Territory and the largest port near the Kongwa site. They established offices in the city, which was about 240 miles from the Kongwa area.[32] The port at Dar-es-Salaam, a shallow-water port, could accommodate only seven ships. The ships had to stop in the harbor, transfer the supplies to smaller boats, and then the cargo was unloaded onto inadequate docks.

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[32]Wood, op. cit., p. 56.

It soon became obvious that the port would not be sufficient to handle arriving equipment and to ship the oil abroad. Plans were soon formulated to provide better facilities.[33]

Later in February, more men arrived in Tanganyika Territory, and traveled to the Kongwa area for their first look at the proposed groundnut farm.[34] They found the African bush to be approximately ten feet tall with tough, fast-growing creepers intertwined. The roots of the bush were extremely tenacious. Baobob trees dotting the area numbered about 150 per acre.[35]

The British government had decided to concentrate its efforts at Kongwa the first year because of its accessability

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[33] Ibid., pp. 129-31.

[34] Wood, op. cit., p. 64.
"Up at Kongwa, the advance guard were setting about clearing the bush in earnest. What type of bush was it? All the descriptions of Tanganyika agree, and are as monotonously repetitive as the country itself. 'A drouthy wilderness of aloetic and cactaceous plants,' wrote Stanley on the way to Mpwapwa; '. . . we see now the confines of an uninhabited wilderness . . . one interminable jungle of thornbushes.' Julian Huxley tells in African View: 'We drove through thick low scrub--a dreary country, extending for hundreds of miles, with an extremely sparse native population.' A Boer farmer . . . had been even more succinct in his description of Tanganyika: 'Mile after mile of damn-all.' In fact, it is hard to find any adequate description of the tangled thickness of the Kongwa plains. In patches the thickets of scrub are impenetrable. A rhinoceros can force a way through; a snake can wiggle through; but no size or shape animal in between. Except a bulldozer. . . .'"

[35] James, op. cit., p. 2.

to the railways and the proximity of the port at Dar-es-Salaam. This area had fewer trees per acre and they were of a smaller size than were found in the other proposed sites, and this fact was also taken into consideration. Small trial plots at Kongwa had yielded from 900 to 1580 pounds per acre of corticated nuts, and some were grown on ground of low fertility.[36] Soil tests were taken in the area, and they showed the only need was for nitrates and phosphates, which could be supplied in commercial fertilizers. One important thing the experimentors failed to consider, however, was the heavy red clay. In the rainy season this soil became extremely sticky and caused the heavy machinery to bog down. During the dry season, the ground became so hard that it would even bend a plow. The dust often became almost unbearable.[37]

The original plan called for two hundred tractors to be in the field and ready to work by February, 1947, but only ten had arrived in the port of Dar-es-Salaam by April 20, 1947. The delay was the result of several factors. There had been a fuel crisis in England, and fogs and storms had delayed the ships.[38] Even after the equipment arrived in

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[36]Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7314, pp. 2-7.

[37]Wood, op. cit., p. 59.

[38]Matheson and Bovill, op. cit., p. 120.

Tanganyika Territory, the difficulties were not over. Only a single track railroad led to the groundnut farm. Many of the tractors' cutting blades were too wide for some of the railway cuttings, so that the undergrowth beside the tracks had to be cleared, making an additional delay. Because the one-way track had insufficient railway cars, only twelve machines could be moved to the project site in one week.[39] The Wakefield Report had predicted 150,000 acres could be cleared in 1947 if the tractors were on the groundnut farm by February, but there was already a three month delay. It was the end of August before the entire two hundred tractors arrived at Kongwa. Of this number, only one-third were in running condition, and by November, three-fourths of the original two hundred were out of order. By 1948, all of the tractors had been delivered.[40]

At the time of the plan's inception, the British government had refused to tie the United Africa Company to the exact specifications of the Wakefield Report. This was to allow for experimentation and changes as experience proved necessary. Although the United Africa Company was to carry out the plan until the government was ready to take over, the company hired Messrs. Pauling and Company to do the main

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[39]Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7314, p. 5.

[40]Wood, op. cit., pp. 64, 85.

part of the clearing of the land for 4s. 6d. per acre.[41]

The actual clearing process went through several stages. The first was to cut traces. These were at mile intervals and at right angles, or similar to the mile-square system used in many of the rural areas of the United States. When this work had been completed, traces were then cut at shorter intervals. Bush-bashing, or clearing, was then started. The cut bush was pushed into windrows to prevent erosion, a severe problem in this area.[42] To prevent the farm from turning into a dust bowl, several staff members were sent to Witwatersrand University of South Africa to study soil erosion. Contour farming was practiced and in order to prevent the soil from washing away, the bush was not cleared from sloping land.[43] It was originally estimated that two acres could be cleared in eight hours. Experience proved that the clearing of land required twice the time originally estimated.[44] Finally, after the clearing had been under way for a year, the workers discovered that the best way to clear the bush was to sweep through it with a heavy chain having bulldozers attached to either end.[45]

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[41] Ibid., p. 51.

[42] Ibid., p. 66.

[43] Great Britain, Parliament, House of Commons, op. cit., CDXLI, cols. 1608-09.

[44] "Groundnuts on the Rocks," Time, LIV (November 14, 1949), 34.

[45] Wood, op. cit., p. 210.

As experience proved, pulling the roots out of the ground was a far more difficult task than clearing the bush from the surface. The bush had extremely long tough roots, and none of the equipment available would tear them out of the ground. The plows were twisted and turned aside by the tenacious roots. Over one hundred root-cutters were ordered from England before the problem presented itself. The soil was extremely gritty and wore the implements down; a hard steel root-cutter lasted only twenty working hours.[46] The problem created by the roots caused a serious delay in clearing operations:

> The delay in the arrival of the equipment early in 1947, . . . caused some setback to clearing work. The most serious obstacles to the rapid progress of the scheme, however, have been the small proportion of available tractors . . . possible to maintain in regular operation . . ., and the character of the Kongwa bush.[47]

The problem of pulling out the roots partially solved itself. The original plan called for rotating the fields between groundnuts and sunflowers. It was found that the sunflowers could be planted in unrooted ground, needed no plowing to kill the weeds, and helped break down the roots for later extraction. The oil yield from sunflowers was lower than from groundnuts, but the work was less, requiring

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[46] Ibid., pp. 88, 180.

[47] Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7314, p. 4.

only clearing, planting, and providing beehives to keep the plants pollinated.[48] According to the original plan, the goal was to have 150,000 acres or five units of land cleared and planted by 1947, but because of delays, ill-suited equipment, and transportation difficulties, the amount actually planted was much less. The cleared area for 1947 was as follows:

June	1,027 acres
July	2,671 acres
August	6,238 acres
September	2,672 acres
October	122 acres
Total	12,730 acres[49]

Planting had to begin in November if a crop was to be harvested in the spring of 1948. Here again the equipment was not suited to conditions and breakdowns were frequent. Heavy rains fell in December, 1947, insuring a crop, but making life miserable for the personnel living in the tents. After unusual exertions, the planting was completed by January 15, 1948. Despite the fact that the workers labored fourteen hours a day during every day of the week, only 7,500 acres were planted.[50]

The first crop was to be of an experimental nature. Many types of vines and many kinds and qualities of ferti-

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[48] Wood, op. cit., pp. 161-63. [49] Ibid., p. 85.

[50] Ibid., pp. 95-97.

lizers were used to determine which was the most suitable.[51] This crop would have to be used for seed for the next planting season.[52] The yield was 528 pounds per acre of unshelled nuts, compared to the estimated 850 pounds of shelled nuts.[53]

The mechanical diggers had difficulty operating effectively, and 181 pounds of nuts per acre were left in the ground to be dug by native labor. The diggers had not arrived until one month after the harvest was ready and the red clay was dry and hard.[54] Drought had hardened the clay soil until it was especially difficult to break the surface of the ground.[55]

On March 1, 1948, the government passed the Overseas Resources Development Bill, which consisted of two parts. One part was the Overseas Food Corporation, which was to take over the operation of the groundnut scheme from the United Africa Company, Ltd. The other portion of the bill was the Colonial Development Corporation. The Colonial Development Corporation was given £ 100,000,000 to begin new schemes and

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[51]Great Britain, Parliament, House of Commons, op. cit., Vol. CDLII, cols. 1357-58.

[52]Gibberd, op. cit., p. 415.

[53]"The Nut Farm: Great Groundnut Scheme," Newsweek, XXXIV (November 14, 1949), 36.

[54]Great Britain, Parliament, House of Commons, op. cit., Vol. CDLXVII, cols. 10-13.

[55]Gibberd, op. cit., p. 415.

to develop colonial resources. The major duty of the Overseas Food Corporation was the completion of the groundnut scheme. The Corporation was also to develop other new food projects in the British colonies. A capital fund of £ 50,000,000 was provided for these purposes.[56]

At the beginning of the project, the United Africa Company had been given £ 24,000,000 to clear 3,000,000 acres of bush in East Africa.[57] By March 31, 1948, over £ 7,730,000 had been spent to clear and root only 7,500 acres, and the operating cost was approximately £ 1,000,000 monthly.[58] If the scheme was to be made a paying proposition, changes were necessary.

The United Africa Company, asked to turn over its books concerning the groundnut scheme to the government, admitted that they were incomplete. No one knew how much of the equipment was in Africa, how much was on the way, or where any of it was stored.[59] This information, when publicized, caused unfavorable public reaction.[60] Premature and extravagant publicity demanded quick and spectacular

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[56]Gibberd, op. cit., p. 415.

[57]"Scandal in Peanuts," Life, XXVII (December 12, 1949), 46-48.

[58]Wood, op. cit., p. 102. [59]Ibid., p. 114.

[60]Table IV shows the amount spent for equipment and clearance.

results, but the worst possible method was employed to obtain them.[61]

TABLE IV*

AMOUNT SPENT FOR EQUIPMENT AND CLEARANCE

	To March 1, 1948	March 1, 1948-November 9, 1949
Heavy tractors for clearance	$3,800,000	$ 1,751,000
Agricultural tractors and other equipment	750,000	1,995,000
Other equipment	150,000	244,000
Total	$4,700,000	$ 3,990,000

*Great Britain, Parliament, House of Commons, Parliamentary Debates, Vol. CDLXIX (London: H. M. Stationery Office), col. 151.

In November, 1949, the British government published a 156-page report which described the progress of the project and outlined future plans. The Minister of Food, John Strachey, estimated that it would take twice as much time to complete the scheme as had originally been planned. The cost would be approximately twice as much as the original estimate, partly because of the rise in costs of equipment. However, as the report had predicted, the price of groundnuts was rising. Also, the area planted would be about one-third less than originally planned, according to an article

[61]Matheson and Bovill, op. cit., p. 120.

article by Clifton Daniels.[62] If the Wakefield Report was to be carried out, it would take ten years and cost just under £ 100,000,000. However, as the Overseas Food Corporation had been given only £ 50,000,000 over the original £ 24,000,000, the scheme had to be reduced from the original estimate. As this was £ 26,000,000 short of the amount required to complete the scheme, the size of the operation was cut to 600,000 acres more than already had been cleared.[63] With the report came this statement:

> There is, . . ., no reason . . . to doubt that the whole scheme--modified here and there as to its details in the light of the experience continually being gained--can be carried out on the broad lines and within the time schedule set out in Command 7030.[64] /Command 7030 is the Wakefield Report/

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[62] The New York Times, November 2, 1949, p. 7.

[63] "Scandal in Peanuts, op. cit., p. 47.

[64] Great Britain, Parliament, House of Commons, Minister of Food, op. cit., Number 7314, p. 5.

CHAPTER III

NATIVE AND SOCIAL PROBLEMS

If a project of the magnitude of the groundnut scheme was to succeed, measures had to be taken to provide food, houses, and water for the laborers. Mr. A. J. Wakefield, chairman of the Wakefield Commission, was interested in raising the living standard of the native people in Africa. It was in keeping with this interest that he was designated social services director of the plan for growing groundnuts.

Many problems needed to be solved before the work crews began. Housing was necessary for both the African and the European workers. Schools and hospitals were indispensable. Water was a major problem in the arid Kongwa region. Training schools were needed to teach the natives to operate and care for the equipment, and the language problem had to be at least partially overcome.

The British government was in a hurry to begin the project, and did not have time to provide the needed homes, hospitals and schools if a crop was to be harvested in 1948.

The Wakefield Report had predicted that over 57,000 natives and 1,200 Europeans would be employed at one time by the project.[1] If such a large number of men were to work

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[1]Table V shows the number of men needed by the project.

together harmoniously, the recruiters could select only the best qualified men willing to work on the project.

TABLE V*

NUMBER OF LABORERS NECESSARY TO PUT GROUNDNUT SCHEME INTO EFFECT

Year	Land clearing		Agricultural operations		Totals	
	Eur.	Af.	Eur.	Af.	Eur.	Af.
1947	90	4,500	70	3,000	160	7,500
1948	270	13,500	280	12,000	550	25,500
1949	500	25,000	574	24,600	1,074	49,600
1950	500	25,000	749	32,100	1,249	57,100
1951	350	17,500	749	32,100	1,099	49,600
1952	250	12,500	749	32,100	999	44,600
1953	---	------	749	32,100	749	32,100

*Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechanized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H. M. Stationery Office, 1948), p. 23.

When the groundnut scheme was first publicized in Great Britain, immense public interest was created. Over 100,000 men and women volunteered to go to Africa to work on the project. Often a former officer of the World War II period called together some of the men who had served under his command in order to take the group to Africa for work on the groundnut farms.[2]

[2]Alan Wood, The Groundnut Affair (London: The Bobley Head, 1950), p. 44.

Many Englishmen were hired for one job, but on reaching Tanganyika were assigned a job completely unrelated to the one for which they had been hired. This lack of consistency caused discouragement and discontent from the first among the laborers. Although there were many volunteers, it was difficult to find enough workers. A surplus of labor was available in Italy, and two hundred Italians were employed. The addition of Italians to the work force increased the difficulty of communication between managers and labor. In fact, three languages were spoken by the different groups among the laborers: English, Italian, and Swahili.

In an attempt to remove the language barrier, Mr. Adolph Myers established a school at Ifunda to teach the natives English, but the school was soon abandoned because of the rapid labor turnover, and the English were taught the rudiments of Swahili, the language spoken by the tribe living in the Kongwa region.[3]

The African tribe which lived in the Kongwa region was the Wagogo tribe. The economy of this tribe was very elementary and most of the inhabitants had never seen modern machinery or a hospital. Suddenly, these features of European civilization were to be introduced into the backward country of Africa, and men were to be trained as mechanics,

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[3] Ibid., p. 137.

drivers, hospital orderlies and office workers. The transition was difficult for the tribal people.

The wages paid the African workers were higher than they had received before. The increase in wages gave many of the natives a feeling of security they had never experienced. Not only did wages rise, but prices went up also. Possessing greater economic security, many natives refused to listen to the advice of their chiefs and thus a stabilizing factor was removed. This problem was recognized in Great Britain. Mr. Gerald Broomfield, General-Secretary of the University's Mission to Central Africa, wrote a letter to the editor of the (London) Times, in which he urged the Anglican Church to employ its facilities in assisting the natives who were uprooted by the groundnut scheme. He asked for moral and financial support from the British people in furtherance of this appeal.[4]

The British government had promised that homes, hospitals, schools, and a water supply would be built for the workers, both European and African, before starting actual clearing and planting. Water bore-holes were sunk in an effort to obtain water locally. Water was found, but it tasted so strongly of epsom salts the Europeans could hardly drink it. In the attempt to erect suitable permanent

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[4](London) Times, February 23, 1948, p. 5, col. 5.

housing, the managers were no more successful. Local materials were to have been used for the lodgings, but no timber was available locally. The only tree in the near vicinity was the baobob tree, which was unsuitable for homes. An appeal then went out to the British government to send materials available in England, but the government was unwilling to ship building materials needed for houses in the United Kingdom.[5] The only alternative was to house the workers in tents until permanent homes could be built. The only local building material was soil. The soil, mixed with cement or lime, was compressed into blocks. A home made of sod blocks was livable until the rainy season when, under the pressure of heavy rainfall, the sod homes frequently collapsed.[6]

As no permanent homes were available, the Africans could not bring their wives and families to the project site. Inability to bring their families caused many workers to abandon the scheme. A number of native laborers would frequently disappear for several days to visit with their families. The absence of wives from the workers' settlements encouraged prostitution and caused widespread dis-

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[5]Great Britain, Parliament, House of Commons, Parliamentary Debates, CDXXXV (London: H. M. Stationery Office), cols. 2033-34.

[6]Great Britain, Parliament, House of Commons, Minister of Food, East Africa Groundnuts Scheme; Review of Progress to the End of November, 1947, Report from Commissioners, Inspectors, and others, Number 7314 (London: H. M. Stationery Office, 1948), p. 7.

content. Because of the laborers' discontent, the rate of natives quitting their positions and subsequent rehiring was high. In 1948, the rate of turnover had reached twenty per cent and in some areas the rate reached one hundred per cent within six months. The high percentage of labor turnover made extensive training of the natives impractical.[7]

Although the turnover of labor was high, the government soon realized that training schools for the natives were necessary. The cost of European labor was expensive, and the natives had to be trained if they were someday to operate the groundnut farms by themselves. To this end, two schools were established in 1947. In April a school for training bulldozer operators was established, and in July an agricultural tractor school was opened. By November, 1947, 456 African drivers passed tests to handle heavy clearing machines and 240 could drive the agricultural tractors. Only ten to fifteen per cent of the natives who enrolled failed the courses. Although the natives could drive the machines, they often failed to check the water and oil and thus caused many unnecessary breakdowns. Driving the tractors was not an easy job. The bush flipped the drivers in the face, dirt and dust were thrown in their eyes, and twigs and leaves collected in the radiators of

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[7](London) Times, November 22, 1948, p. 2, col. 5.

the tractors. Bees were often found in the baobob trees, and a few men were sent to the hospital from bee stings.[8] One writer summarized the problem in this way:

> In short, the groundnut scheme to be successful could be nothing less than a scheme for starting an African Industrial Revolution; not only building workshops, but [also] training African workers from tribes which had not even got as far as the invention of the wheel.[9]

The African natives learned from the Europeans how to do many jobs, but this was not all they learned. They learned how to form unions and use the strike to obtain better working conditions. On September 15, 1947, the natives working on the farm site at Kongwa and the railway workers laboring on the line between Dar-es-Salaam and Kongwa went on strike. The strikers, numbering about 5,000, demanded higher wages and better working conditions. The strike, which resulted in some acts of violence, lasted only four days, and caused hard feelings between African and European. The Africans, however, were forced back to work with no guarantees.[10]

Much was done, however, to aid the natives. Hospitals were built and heavily used. Natives from the entire Kongwa region came to obtain medical services. The tsetse fly was eradicated, thereby reducing the probability of sickness. The bush was cleared and wild game hunters were

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[8] Wood, op. cit., p. 68.

[9] Ibid., p. 46.

[10] Ibid., pp. 78-80.

hired to kill any dangerous animals which might wander into the area.[11]

The Europeans working on the scheme found little would be done for them in the way of housing and services unless they complained to the local managers. Many of the inconveniences could not be alleviated by the officials. The climate, different from what most Europeans were accustomed to, aggravated the incidence of disease. In December, 1947, torrential rains fell, bringing scorpions and saturating tents and supplies. Finally, after considerable complaint, homes were built for the whites at great expense. The disparity between white and African habitation caused hard feelings among the natives who had no permanent homes at Kongwa. By February, 1948, only twelve white women lived at the groundnut farm. Even after permanent structures were built, many men considered the area unsuitable for their families.[12] By October, 1948, enough white families were at the site for a school to be formed. Teachers for this school were found among college educated wives of the European workers and managers. A school building was not available, however, and the Kongwa Club, a social organization, allowed classes to meet in the club hall. Furthermore, the govern-

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[11] Ibid., p. 89.

[12] (London) Times, February 4, 1948, p. 3, col. 1.

ment provided ten bursaries for children wishing to pursue further study in England.[13]

Although the British government spent £ 36,000,000 for social services for the African natives, the Times felt this large sum of money could have been used more profitably. The hospitals and schools were able to serve only the natives working on the scheme. As the large masses of the natives lived along the coast of Tanganyika Territory, the social services were used by only a small percentage of the total population of the territory. When the scheme failed, the hospitals and schools were abandoned to the elements, and the native population moved elsewhere in an attempt to find some means of earning a livelihood. Thus, £ 36,000,000 of the British taxpayers' money was spent with little temporary return and nothing but total loss in the long run.[14]

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[13] Ibid., October 4, 1948, p. 3, col. 5.

[14] Ibid., January 3, 1951, p. 5, col. 3.

CHAPTER IV

EXPANSION AND CONCLUSION OF THE GROUNDNUT SCHEME

Until late in 1947, the entire operation of the groundnut scheme was centered around Kongwa in Tanganyika. The government hoped to open new areas in southern Tanganyika to implement new groundnut farms. The new farms were to be operated differently from the farm at Kongwa because of experience gained at that site. The project managers thought the farming experience already acquired would aid in clearing and planting operations and in alleviating engineering problems at the new farms.

Four farming lessons were learned from Kongwa. These lessons were to be applied to the new farms. The first change at the southern site was to do more of the rooting, clearing, and piling of the bush by hand. The second change was to reduce the size of the farms from 30,000 acres to 3,000 acres. The third change to be implemented at the southern site was to separate the farms by trees and bush. The fourth change would be to train the Africans before allowing them to maintain the machinery. This would decrease the number of unnecessary breakdowns caused by a lack of training and handling skills.[1]

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[1](London) Times, March 9, 1951, p. 5, col. 1.

Some of the major engineering difficulties experienced at Kongwa were a lack of adequate transportation and communication lines, ports, water, and homes for the workers. If these problems were to be eliminated in the southern site, advance building and preparations would be necessary. If all the engineering problems were to be solved before the planting began, the southern area could not be open for actual farming until 1949.

In preparation for the new farm units in southern Tanganyika, new transportation and communication routes were started in 1947. A new deep water-port at Mikindani, known as Port Peanut, was started, as were railway lines from the port to the proposed farms. The new port would cost £ 608,888 14s.7d. and could later be used as naval port if necessary.[2] If all of the installations and equipment necessary for farming were provided before actual clearing began, cultivation could not be started for another two years. As the managers of the scheme were anxious to begin the clearing, they decided not to wait until 1949, but to open the farms in 1948.

The area in the Southern Province of Tanganyika that was considered for the new groundnut farms was believed to be more fertile than the area near Kongwa. Small trial plots

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[2]Alan Wood, The Groundnut Affair (London: The Bobley Head, 1950), pp. 129-31.

produced an average yield of 900 pounds of nuts per acre, while the estimated yield at Kongwa was 750 pounds per acre.[3]

A new method of clearing the bush from the land had been devised at Kongwa and had proved so successful that it was to be used in Southern Tanganyika. Two bulldozers were fastened to either end of a heavy chain, which when pulled through the bush knocked the undergrowth down.[4] The difficulty was not in the clearing, however, but in procuring a sufficient supply of bulldozers, spare parts and trained mechanics to care for the machinery. The rate of breakdowns was high. By July, 1948, only twenty-two of 113 tractors were in working condition.[5]

In an effort to provide adequate machinery, the government purchased some out-dated World War II tanks. These tanks were surplus materials of the United States and were commonly known as Sherman tanks. It was hoped to convert the tanks into tractors by attaching a blade for clearing the bush. These "Shervicks," as they were later called, proved unsatisfactory because of a lack of spare parts.

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[3] J. K. Matheson and E. W. Bovill (eds.), East Africa Agriculture: A Short Survey of the Agriculture of Kenya, Uganda, Tanganyika, and Zanzibar and of Its Principal Products (London: Oxford University Press, 1950), p. 121.

[4] (London) Times, March 9, 1951, p. 5, col. 1.

[5] Wood, op. cit., p. 143.

Besides experiencing difficulty due to a lack of adequate machinery, the managers were confronted with health problems in the Southern Province farms. A sufficient number of wells to assure a water supply had not been drilled. Water became scarce, causing a health hazard, and a supply had to be brought to the farms by trucks. Another problem occurred with an outbreak of smallpox in 1948. Doctors were rushed to the area to innoculate all the workers, but many Africans left the farms and returned home until the epidemic had subsided.[6]

Despite the many problems in the southern province, the directors decided to start new farms elsewhere in Africa. The area selected was in West Africa. The peasant farmers in West Africa had grown groundnuts on a small scale for many years. By 1947 West Africa exported 355,000 tons produced on small, privately-owned farms. The British government hoped to greatly enlarge the number of tons of groundnuts produced in West Africa, and in June, 1948, passed a plan to plant 5,000,000 acres with oil-producing plants. The estimated cost of this part of the total scheme was approximately £ 25,000,000, and it was also estimated that over 110,000 workers would be employed in the undertaking.[7]

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[6] Ibid., pp. 138-39.

[7] The New York Times, June 6, 1948, p. 30.

Problems were awaiting the "groundnutters" in West Africa. The transportation system was inadequate. Although the number of railway lines was sufficient for transporting the crop, there was a shortage of railway cars. Prior to beginning the new farms in West Africa, there was a large supply of nuts in storage because of the inadequate number of railway cars for shipping them out of the area. Thus, the project managers had to devise a method to ship future crops as well as those crops already in storage.[8]

TABLE VI*

LAST TWO CROPS OF SHELLED PEANUTS IN TONS, AS OF FEBRUARY 3, 1949

1947-8 Crop	Northern Nigeria	Gambia	(a) River Area Upper Niger Benus	Total
Delivered in U. K.	203,000	49,500	11,000	263,500
In Transit	36,000	------	3,700	39,700
Up Country	76,000	------	------	76,000
Total Purchased	315,000	49,500	14,700	379,200
1948-49 Crop				
Delivered in U. K.	4,000	------	------	4,000
In Transit	14,000	21,500	1,750	37,250
Up Country	262,000	19,000	9,500	290,500
Total Purchased	280,000	40,500	11,250	331,750

(a) Purchases of the 1948-49 crop are not yet complete

*Great Britain, Parliament, House of Commons, Parliamentary Debates, Vol. CDLXI (London: H. M. Stationery Office), col. 1134.

[8]Table VI shows the number of tons of shelled groundnuts grown in West Africa from 1947 through 1949.

Not only were transportation problems awaiting the project managers, but also disease had attacked the stored groundnuts in West Africa. The larvae of a beetle (Trogaderma Sp.) had caused widespread damage. Chemists were sent to the site to help control the spoilage. As the farms were concentrated in one area, the chemists hoped to eradicate the insect within the relatively limited area.[9] However, the number of tons infested in 1949 almost tripled the number infested in 1948.[10]

TABLE VII*

AMOUNT OF INFESTED GROUNDNUTS

	1947-48 Crop	1948-49 Crop
Total shipped (railed)	21,083 tons	14,172 tons
Total destroyed	264	9
Balance of infested crop	424	49,188
Total infested crop	21,771 tons	63,369 tons

*Great Britain, Parliament, House of Commons, Parliamentary Debates, Vol. CDLXVII (London: H. M. Stationery Office), cols. 412-16.

The problems of the managers were compounded by a new snag in 1948. The Soviet Union's delegate to the Trusteeship Council of the United Nations demanded that the Council call upon Great Britain to desist from applying the East

[9]Great Britain, Parliament, House of Commons, Parliamentary Debates, Vol. CDXL (London: H. M. Stationery Office), col. 838-39.

[10]Table VII shows the number of infested groundnuts.

African scheme to the trust territory of Tanganyika. He also insisted that in the future the British government submit for advance approval to the Council any laws or ordinance which might affect the legal status of the territory. The Soviet delegate charged that the British were sucking the lifeblood of Africa in order to revitalize the aging arteries of England.[11]

In an effort to resolve the difficulties, a United Nations Missions Survey was appointed to inspect the African groundnut farms. An inspection team, consisting of a Frenchman, an Australian, a Chinese, and a Costa Rican, visited the project areas late in August, 1948. The team visited Dar-es-Salaam and the Southern Province of Tanganyika. They conferred with local managers, toured areas being cleared and cultivated, watched the Africans operating tractors and bulldozers, and visited the African labor camps.[12] Following the two day visit, the inspection team reported to the Trusteeship Council of the United Nations. The Council issued a report based on the inspectors' findings condoning Great Britain's actions. The Council hoped the scheme would serve as an example for all other countries and especially for colonial powers.[13]

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[11](London) Times, June 13, 1948, p. 4, col. 1.

[12]Ibid., August 27, 1948, p. 3, col. 5.

[13]Ibid., September 3, 1948, p. 3, col. 5.

A second crisis arose for the scheme directors. A book was written by the former public relations manager for the scheme, Mr. Alan Wood. Mr. Wood had resigned from his post with the project in 1949 over a disagreement with the government concerning news coverage. Mr. Wood's book, The Groundnut Affair, was highly critical of the scheme. The manuscript of the book was given to Mr. Strachey, Minister of Food, to read before publication. Mr. Strachey was quite critical of the proposed book and called it "a grave distortion of the history of the scheme." The Food Minister promised that he would not bring a libel suit over the book, but he could not guarantee what action others might decide to take. The publishing company felt they could not be responsible for printing such a controversial book. However, Mr. Wood found a company which would print the book. The House of Lords and the House of Commons strongly protested Mr. Strachey's attempt to censor the material.[14]

The project managers were bothered by problems not only in the United Nations, Southern Tanganyika and West Africa, but also by additional difficulties on the farms in the Kongwa region. The production of groundnuts was not working out as well as had been planned. The original report called for sunflowers to be used as a supplementary crop

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[14] Ibid., March 22, 1950, p. 6, col. 2.

to be rotated with groundnuts. In 1948, however, of the 50,000 acres cleared at Kongwa, fifty-five per cent was planted in sunflowers.[15] This was done because the ground had not been adequately rooted, and the sunflower aided in breaking down the roots. This rate increased until 1950, when only 9,500 acres were planted in groundnuts and 56,000 acres were planted in sunflowers.

The Wakefield Report had selected widely separated plots of land for the groundnut farms to escape the possibility of all the units being effected by drought simultaneously. In the spring of 1949 it seemed that in spite of their careful planning, drought would severely curtail the crops at all the farms, although Kongwa was the hardest hit.

Rain did not fall at Kongwa from February, 1949, until near the end of the following December. This was the worst drought to hit Tanganyika in thirty years. Kongwa was without drinking water, and there was no water to operate the locomotives or diesel engines. As food and water had to be carried to the Kongwa farms in trucks, a near famine developed.[16]

Once the rains started, however, there was no stopping them. By early January, 1950, rains had washed out the

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[15] Ibid., December 8, 1948, p. 3, col. 3.

[16] Ibid., December 22, 1949, p. 4, col. 5.

railway lines from the farm sites to Dar-es-Salaam. It took weeks to repair the lines, thus creating another food shortage. Not only were the railway lines innundated, but the farming areas were also under water and all work ceased. These severe rains, preceeded by the drought, curtailed the harvest. The crop of 1950 averaged only 306 pounds of groundnuts per acre. Of 9,500 acres planted in groundnuts, only 7,000 acres were harvested. Of the 56,000 acres planted in sunflowers, only 39,000 acres were harvested, yielding an average of 98 pounds per acre. The remaining 18,500 acres were not considered to be worth harvesting.[17]

The 1949-50 production costs for growing groundnuts, maize, sorghum, and sunflowers amounted to £ 600,000. The total value of the harvested crop was £ 100,000 making a loss of £ 500,000. The reason for such a great loss was the result of the failure of the sunflower crop. The British government concluded that operations at Kongwa had to be curtailed.[18]

The entire staff and supplies were shipped from Kongwa to the Southern Province of Tanganyika. This action left many natives without jobs. Many British and Africans complained loudly about the ill treatment of the native

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[17] Ibid., October 7, 1950, p. 5, col. 3.

[18] Ibid., September 29, 1950, p. 4, col. 5.

workers, so that the British government decided to leave 12,000 acres in groundnuts, maize, and sorghum at Kongwa. The area was to be divided into four farms of 3,000 acres each. The remaining cleared area was to be allowed to return to grassland. This grassland was to be turned over to the Zebu tribe to graze their cattle.[19]

Because of repeated failures, the Conservative Party in Parliament became disgruntled with the groundnut project as early as March, 1949. At that time they asked for an inquiry into the scheme but were defeated in Parliament by a vote of 231 to 113.[20] Again in November, 1949, the Conservatives urged an inquiry, but the Labour Party again backed the project by a vote of 315 to 161. The Conservatives could not be quieted, however, and Winston Churchill demanded that an impartial board investigate the scheme.[21] Shortly afterward, Mr. John Strachey, in response to public criticism, dismissed two members of the original fact-finding committee and directors of the scheme; Mr. Wakefield and Mr. Rosa.[22]

The Conservative opposition to the project did not decrease when the report showing the prices paid for the

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[19] Ibid.

[20] The New York Times, March 22, 1949, p. 22.

[21] Ibid., November 19, 1949, p. 8.

[22] Ibid., November 20, 1949, p. 39.

groundnuts by the government was released. The nuts were not bought by the Ministry of Food directly from the producers, but were sold by the producer to the Producer Marketing Companies and then purchased by the British government.[23] The African Territories received the difference between the cost of growing the product and the sale price, and the British government got the benefit of the oil.[24]

The prices paid for the oil by the Ministry of Food were much higher than the original estimate of £ 14 5s. 6d. per ton. The prices were:

	1948-49	1949-50	1950-51
Shelled	£ 55	£ 53	£ 70
Unshelled	£ 45	£ 43	£ 55[25]

The prices paid for nuts from East Africa, West Africa and India were about the same; however, some offers on the world market in 1950-51 for unshelled groundnuts were as high as £ 82 10s. per ton.[26] The government had hoped to produce nuts in Africa for less than one-half the price paid for the nuts on the world market.

The nuts purchased by the British government from the Producers Marketing Companies were pressed into oil and

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[23]Great Britain, Parliament, House of Commons, op. cit., Vol. CDLXXXIII, cols. 111-12.

[24]Ibid., Vol. CDXLIV, col. 185.

[25]Ibid., Vol. CDLXXXIII, cols. 167-68.

[26]Ibid., Vol. CDLXXXVII, col. 145.

the oil was sold to private manufacturers. In 1951, the price for one ton of groundnuts bought from the government was £ 114.[27] In 1949 the Food Ministry cleared a profit of £ 500,000, and in 1950 the amount made was £ 250,000 on the sale of oil to private companies. These figures were far short of the Wakefield estimate of £ 10,000,000 which they predicted the government would save each year.[28]

The critics continued their attack. By mid-1950 the Liberals had joined with the Conservative Party in the demand for an inquiry. The two groups proposed to cut expenditures for the scheme to the traditional five pounds,[29] but were again defeated by a vote of 299 to 290. However, early in 1951 the Labour Party was ready to concede that the experiment in planned agriculture had failed.[30] A way had to be found to regain part of the expenditures where operations were curtailed. The government planned to stop operations at all of the African farms.

The East African Railroad and Harbour Administration was willing to buy the internal improvements made in Tanganyika Territory by the British government. The govern-

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[27] Ibid., Vol. CDLXXXIV, col. 1734.

[28] Ibid., Vol. CDLXXXV, col. 159.

[29] Five pounds is the traditional sum allotted to a project to show the failure of the project.

[30] The New York Times, June 19, 1950, p. 3.

ment spent £ 36,519,800 for the groundnut scheme in East Africa, and they were offered £ 2,505,600 for the internal improvements. This represented a loss of approximately £ 34,014,200.[31]

When these facts were made public, the criticism was loud and long. The critics found many faults with the management of the scheme. Earl De La Warr thought the Colonial Office should have handled the project from the beginning. He thought that this governmental agency had more experience in planning and executing large developments in the territories. The change from the Ministry of Food to the Colonial Office became a reality early in 1951, but by that time the project had already failed.[32]

Dr. A. H. Bunting, agricultural scientist in charge at Kongwa, said that there had not yet been devised "a system of farming operations for groundnuts or other crop production which is fully efficient either in terms of economy of major operations or in terms of maximum utilization of tractor power and time." He also thought that the growing conditions were copied from the United States where the climate was more moist than in the regions of Africa where

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[31]Great Britain, Parliament, House of Commons, op. cit., Vol. CDLXXVIII, col. 306.

[32]Great Britain, Parliament, House of Lords, Parliamentary Debates, Vol. DLXVIII (London: H. M. Stationery Office), cols. 688-90.

the groundnut farms were located.[33]

Viscount Swinton agreed with Dr. Bunting in substance. The Viscount thought the scheme should have taken place in Nigeria and French Senegal. Adequate ports and railways were available in those areas for the project. The people in French Senegal and Nigeria were skilled farmers used to growing groundnuts. Only expansion of existing facilities would have been necessary in the two regions mentioned while entirely new operations were required in Tanganyika.[34]

Actually, all of these men were right in their criticisms. The first error committed by the government was one of not carefully selecting the men who made the initial survey and authored the Wakefield Report. Although each of the three men had experience in some phase of agriculture, they neglected to take into account the lack of transportation and communication facilities. Ports were not available that were large enough to handle the ships carrying supplies for the scheme; railway lines from the port to the farm sites were inadequate as were the number of railway cars and locomotives.

The Wakefield Committee also failed to study effectively the data concerning soil types and rainfall. The

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[33](London) Times, August 29, 1949, p. 3, col. 5.

[34]Great Britain, Parliament, House of Lords, op. cit., Vol. DLXVIII, cols. 710-12.

statistics regarding the rainfall were taken from a small station in the hills. The precipitation was considerably more in the hills than on the plains where the groundnut farms were to be located. The area at Kongwa was known to frequently experience drought, which the report failed to note.

Not only did the committee neglect to record climatic conditions adequately, but they also neglected to study the character of the African bush. A dense growth of bush was found on the proposed farms. This bush was difficult to clear from the surface of the land, and the roots were almost impossible to extract. Machinery acquired for the farms was not suited for removing the roots of the bush.

Besides failing to obtain adequate machinery for rooting, the directors also failed to procure suitable equipment for clearing the land or harvesting the crops. Frequently the tractors were of the World War II era and were not made for agricultural purposes. Much of the out-dated equipment had been sitting on beaches for two years. Often spare parts were not manufactured for the older machines, so that when a breakdown occurred, the equipment could not be repaired for weeks.

Often when the spare machine parts arrived in Africa, there were not an adequate number of trained mechanics to repair the broken machinery efficiently and quickly. Many

of the European mechanics refused to leave their homes so soon after the War, and most of the natives had never seen modern machinery, much less driven or cared for it. Extensive training was necessary to prepare the Africans for their new role.

After many of the Africans were trained, they refused to work on the groundnut farms because of a lack of housing, water, and hospitals. The laborers had been promised homes, but upon arriving at the scene with their families, they found that only makeshift tents were available. As the tents were unsuitable for housing families, many men also left the farms, not wanting to be separated from their wives and children.

If the idea of implementing such a project as the groundnut scheme was not impractical, the planning of the project was. Small trial plots should have been planted prior to the large scale farming. This would have aided in developing the proper machinery for clearing, rooting, planting, and harvesting. After the tests had been completed, machinery to meet the express needs should have been developed and shipped to the project sites prior to clearing. Spare parts should have been made available as well as trained mechanics and drivers to care for and handle the equipment. Many unnecessary breakdowns could have thus been averted.

After the small trial farms were in operation, natives should have been trained for the positions they would hold when the full-sized farms were developed. Homes and other necessary buildings should have been erected, thus preparing for the future.

The conclusion that all government planning is faulty should not be drawn from this study. Lack of planning by the British government undoubtedly effected the failures which plagued the scheme. This was not, however, the only cause for the disaster. Natural calamities such as excessive rainfall and extreme drought caused much damage. The government did not seem to mind the amount of money that was expended in an effort to rectify the lack of planning. The scheme was not run in a business-like manner. Proper books were not kept on expenditures and location of supplies. Had a business firm undertaken the project, many of the errors might have been avoided.

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APPENDIX

APPENDIX

The summary and conclusions which follow are confined to the salient points of the project.

1. The world is to-day suffering from a critical shortage of oils and fats, the annual shortfall in the case of Britain alone amounting to the equivalent of 1 1/2 million tons of groundnuts. Although the present acute phase may have passed in four or five years, it is the view of those best able to judge that there will be a continuing world shortage for a long time, say, for the next ten to twenty years.

2. It is only by the most highly mechanized forms of agricultural development that the present critical position can be substantially improved. Vast tracts of unoccupied land will be required to meet an appreciable part of the shortfall. Suitable areas exist to the required extent in Tanganyika and Northern Rhodesia and to a lesser degree, in Kenya.

3. A project is submitted for the establishment of 107 mechanized units; each unit being 30,000 acres in extent, and the total area 3,210,000 acres. Eighty units are proposed for Tanganyika Territory; 17 for Northern Rhodesia, and 10 for Kenya.

4. If the project is started in 1947, it is estimated to produce a minimum of 600,000 tons of groundnuts by 1950/51, but an annual production of some 800,000 tons should be possible as the scientific farming methods recommended here begin to yield their rewards.

5. Estimates have been framed strictly on a business basis and show the project to be financially sound. The estimated average cost of production works out at approximately £ 14 5s. 6d. per ton of groundnuts f.o.b., whereas to-day's cost of purchasing groundnuts in the free market is not less than £ 32 0s. 0d. per ton, a level likely to be maintained for several years. This margin of approximately £ 17 0s. 0d. applied to a crop of 600,000 tons would mean a saving of £ 10,000,000 per annum in Britain's food bill.

6. The total capital expenditure would be spread over six years and would amount approximately to

£ 24,000,000. Of this £ 4,750,000 would be for agricultural machinery, to be amortised over five years, and the balance for land clearing and installations which would be amortised over twenty-five years.

7. The costs of production are estimated to be £ 12 15s. 6d. f.o.b. or £ 14 5s. 6d. f.o.b. per ton of shelled nuts on the basis of an average yield of 850 lbs. per acre, or £ 9 13s. 10d. and £ 7 3s. 10d. respectively on the basis of a yield of 1,120 lbs. It is considered that a yield of not less than 850 lbs. is attainable over the first rotation and that a yield of 1,120 lbs., and possibly even more, should be attained as the fertility of the land is raised by the methods advocated in the report.

8. Labour requirements for the mechanized system of crop production would be small in relation to the scale of operations. Initial bush-clearing calls for the employment of 25,000 Africans at the peak of operations in 1949 and 1950. The actual farming operations need a permanent labour force of about 300 Africans per unit, including 70 in special categories of tractor drivers, hospital orderlies, clerks and so on. The total for farming operations when all units have been brought into production, is 32,100 Africans.

9. The total number of Europeans required for clearing operations is about 500, and for the permanent operation of the project approximately 750. The latter figure includes, in addition to unit managers and engineers, such specialized categories as surveyors, soil conservation experts, doctors and welfare superintendents, as well as the scientific staff. A comprehensive research programme, which is essential to the project, is outlined both in regard to the use of land, and the human problems of nutrition.

10. A new railway, deep water-berths, bulk-storage, and port installations, tentatively estimated locally to cost £ 1,250,000, will be required by the second year of operation for the 55 units in the Southern Province, Tanganyika Territory, where production is likely to reach a peak of 440,000 tons. The 10 units in the Western Province of this territory will be served by the existing Central Line of the Tanganyika Railways and by the projected branch of this railway from Kaliua to Mpanda. The 15 units of the Central Province require

all-weather road or a branch railway of 35 miles to link them to the Central Line. In Kenya, improved roads and sea-going lighters will be required. In Northern Rhodesia, all the localities but one are adjacent to the existing railway; the exception being Kapalala which would require either improved road communication, or a new railway, from Ndola to the Luapula River. It would be of great strategic and economic importance to link such a railway with the Central Line of the Tanganyika Railways. No element for the above transport and port installations is included in the estimate of the project, as it is assumed that these will be provided by the Governments concerned. Even where existing railways serve the project, additions to railway equipment port installations, and rolling stock may have to be provided.

11. Time being of the essence, the units selected for first development must be those which can yield the quickest and greatest production of groundnuts. This will be attained on the red light loams.

12. The nature and scope of the project rules out private enterprise as the permanent owners or operators. It would seem necessary to form a Public Corporation sponsored and financed by His Majesty's Government to operate the project. The African Governments have no available resources to assist, at least in the early stages, in financing the project. The London Board of Directors, on which His Majesty's Government would have adequate representation, would require a full-time Chairman and men of wide experience of industry and organization. A Central Advisory Board in Africa would also be required, but this should have no executive powers, these being vested in the Corporation's Senior Executive in the field, who would be responsible to the Board of Directors in London.

13. There would clearly be serious objections to the permanent control from outside the Colonial territories concerned of the vast areas necessary for the execution of the project. In any case, it is assumed that His Majesty's Government will not wish to be in possession of an enterprise of this nature for an indefinite period. Provision should therefore be made for the ultimate taking over of the project, firstly by the local Governments, and subsequently by the African communities themselves. The local Governments have indicated that they would be prepared to lease the land required for the project.

14. The project will pave the way for the eventual institution of the co-operative use of land; but when the time for this comes, which may be a generation or two ahead, it will be necessary to ensure continuance of the mechanized system of large-scale production, and to avoid reversion to primitive methods of individual effort which have proved so ineffective and ruinous to the land.

15. In no way is the project prejudicial to the African interest. In every instance the local plans for Development and Welfare will be aided by the mass production of groundnuts, particularly in regard to the clearing of tsetse infested bush and the control of Sleeping Sickness, the establishment of water supplies, the improvement of communications, and the provision of an economic foundation for social advance. In addition, the project could be utilized both to meet the serious threat of famine, which now faces East Africa, and to supply food, other than fats, for the outside world; if this is required, additional equipment and personnel must be provided.

16. There can be no question of outright exploitation of the land, consequently only half the total areas would be under groundnuts at any one time; the remainder being under grass. Soil conservation is the most important requirement, and adequate provision is made for fertilizers. The rainfall in all the localities selected for the project is adequate for the groundnut crop. The ill-effects of disease and of temporary cessations of rain, which have occasionally reduced crop yields under the existing primitive methods of cultivation, can be largely avoided by the methods described in the Report.

17. Although ancillary farming operations, such as dairying or beef production, are not necessary either to maintain or to improve soil fertility, these could be introduced when desired.

18. The scale and requirements of the project represent a gigantic undertaking. Even so, the total production of groundnuts forthcoming from the area of 3,210,000 acres will meet little more than one-third of Britain's present shortage. There is an abundance of additional land suitable for an extension of the production should that prove necessary in the national interest. On the other hand, the programme of development has been so

arranged that it would not be necessary to complete the whole project to render its several parts economic.

19. Equipment and personnel in the required numbers will be difficult to get, but the success of the project will be assured if it is undertaken with the sense of determination and urgency which the gravity of the situation demands.[1]

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[1]Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechanized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H. M. Stationery Office, 1948), pp. 15-17.

DESCRIPTION			1947-48	1948-49	1949-50	1950-51	1951-52	1952-53	Total
Acreage to be cleared		... ...	150,000	450,000	855,000	855,000	525,000	375,000	3,210,000
Acreage to be planted		... ...	150,000	600,000	1,230,000	1,605,000	1,605,000	1,605,000	———
Labour: for clearing	European	...	90	270	500	500	350	250	———
	African	...	4,500	13,500	25,000	25,000	17,500	12,500	———
for agricultural	European	...	70	280	574	749	749	749	———
operations	African	...	3,000	12,000	24,600	32,100	32,100	32,100	———
CAPITAL EXPENDITURE			£	£	£	£	£	£	£
Cost of clearing equipment and operations			580,000	1,740,000	3,307,000	3,308,000	2,030,000	1,450,000	12,415,000
Cost of installations		...	735,000	1,875,000	2,630,000	1,565,000	———	———	6,805,000
Cost of agricultural machinery		...	444,000	1,333,000	1,867,000	1,111,000	———	———	4,755,000
TOTAL CAPITAL EXPENDITURE			1,759,000	4,948,000	7,804,000	5,984,000	2,030,000	1,450,000	23,975,000
RECURRING EXPENDITURE			£	£	£	£	£	£	
Cost of agricultural operations		...	552,000	2,206,000	4,523,000	5,902,000	5,902,000	5,902,000	
General overheads		... ...	73,000	73,000	73,000	73,000	73,000	73,000	
Depreciation: land clearing		...	23,000	96,000	239,000	390,000	487,000	559,000	
installations		...	29,000	108,000	222,000	293,000	293,000	293,000	
agricultural machinery			89,000	355,000	729,000	951,000	951,000	951,000	
TOTAL RECURRING EXPENDITURE			766,000	2,838,000	5,786,000	7,609,000	7,706,000	7,778,000	

Production in long tons (on estimated yield of 850 lbs. of shelled nuts per acre) ...	609,000
Cost of production per ton of shelled nuts - at unit	£12 15s.6d.
Cost of bagging, land freight and handling - per ton of shelled nuts	£ 1 10s.0d.*
F.O.B. cost per ton of shelled nuts	£14 5s.6d.

*This figure is low, in comparison with today's rates, because it takes account of economies which will result from the considerably increased volume of traffic, as also from the installation of bulk storage and handling facilities - more particularly in the Southern Province of Tanganyika.

ESTIMATED COST OF GROUNDNUT SCHEME

+Great Britain, Parliament, House of Commons, Minister of Food, A Plan for the Mechanized Production of Groundnuts in East and Central Africa, Reports from Commissioners, Inspectors, and others, 1946-1947, Number 7030 (London: H.M. Stationery Office, 1948), p. 25.