

AN ABSTRACT OF THE THESIS OF

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Title POSSIBLE IMPACT OF FARM SETTLEMENTS ON THE ECONOMIC DEVELOPMENT OF EASTERN NIGERIA

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The Federal Republic of Nigeria, on the west coast of the continent of Africa, is divided into four Regions: Northern, Western, Midwestern and Eastern. The Federal Capital of the country is Lagos. Eastern Nigeria occupies the south-eastern portion of the country, nearest to the Federal Republic of Cameroun.

The propensity to establish Farm Settlements by the Regional Governments of Nigeria prompted this study of the potentialities of Farm Settlements as factors conducive to the economic development of Eastern Nigeria.

In 1960, the Government of Eastern Nigeria passed a white paper which aimed at improving the productivity of the agricultural sector of the economy through the establishment of Farm Settlements.

Seven settlements were selected: Ohaji, Ulonna, Abak, Igbariam, Boki, Erei and Uzo-Uwanni. Each settlement consists of 12,000 acres

and when fully developed will accommodate 720 settler-families.

The commercial crops to be grown on each settlement are assigned by the government based on the results of soil surveys conducted by the Ministry of Agriculture and on economic considerations of markets and prices. Ohaji, Ulonna and Abak are to grow Oil Palm/Rubber; Igbariam and Boki , Oil Palm/Citrus; Erei, Oil Palm/Cocoa and Uzo-Uwanni, Irrigated Rice.

It is estimated by the Government that the cost of establishing each settler will be about £ 1500 (\$4,200). This amount is to be repaid installmentally by the settler. According to the Government policy on Farm Settlement, the settler shall start repayment of principal in his seventh year of settlement. The debt which carries a three percent interest is to be amortized over a 15-year period.

It is estimated that the net income of a settler when his tree crops are fully established will be about £500 (\$1,400) a year.

The possible impact of the Farm Settlements on the various facets of the economy are examined. Increased revenue to government as "profit" from export crops produced is expected to be significant. With more money, the capability of the government to provide more amenities such as schools and hospitals would be enhanced. Improved production methods resulting from technical "on-the-job" training will increase the efficiency of the farmers and eventually lead to greater production of agricultural products. Significantly increased production

of export crops will require Government to be inclined to improve transportation and communication systems which likewise generate economic activity having far reaching effects. Better transportation and communication would be expected to increase both geographic and occupational mobility and enhance opportunities to engage in secondary manufacturing and distribution.

Possible obstacles and difficulties that may serve as inhibiting factors are also recognized. Lack of technically trained personnel will sure militate against the execution of even the best of plans. Social and cultural resistance will no doubt constitute formidable obstacles. The possible lack of foreign demand and variability of prices for the export crops will prove particularly detrimental to achieving success. Lack of domestic purchasing power may limit the demand for the processed products from the Farm Settlements and thereby limit their beneficial impact. However, even with the obstacles and the impediments duely considered, it is more likely than not, that the Farm Settlements will have a significantly favorable impact on the economic development of Eastern Nigeria.

POSSIBLE IMPACTS OF FARM SETTLEMENTS
ON THE ECONOMIC DEVELOPMENT OF EASTERN NIGERIA

by

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POSSIBLE IMPACTS OF FARM SETTLEMENTS ON THE ECONOMIC DEVELOPMENT OF EASTERN NIGERIA

INTRODUCTION

Once to every man and nation comes the moment to decide
In the strife of truth and falsehood, for the good or evil side. .
Then it is the brave man chooses, while the coward stands aside
Till the multitude make virtue of the faith they had denied.

(1, p. 480)

In the years since World War II the world has been divided economically between developed and underdeveloped countries. These labels developed and underdeveloped are attached to the countries, solely in terms of economic performance and imply relative status in the sense that a country, even though labeled undeveloped, is technically capable, given known resources and technology, of undergoing development; while countries regarded today as developed may become underdeveloped in the future compared with the development they might achieve or compared with other countries regarded then as developed.

However, several features are sufficiently widespread and distinctive to warrant labeling a country as underdeveloped. These include low income, low well-being, raw-material producers and poor manpower utilization.

Over 50 countries are classed as underdeveloped. With rare exceptions, these countries are found in Asia, Africa, and Latin

America and are the home of some two-thirds of the world's people. These underdeveloped countries are worried about their unenviable economic position and express intention of doing all within their power to improve the situation. They are however, faced with the difficult problem of choosing either to develop the industrial or the agricultural sector of the economy first.

Those who hold the view that a large share of development expenditure be allotted to agriculture stress the fact that the overwhelming majority of the population is rural, and argue that development programs should be organized around the living standard of the typical citizen, statistically speaking, the modal consumer. This means that where the per capita income is low emphasis should be on the provision of food, clothing, shelter, education, and medicine which are the dominant items in the economy of the low income family. By the same token, automobiles, expensive dwellings, luxury consumer goods in general, should not be considered.

The opponents argue that emphasis on investment in agriculture will be far less profitable to long-range development than a similar sum allocated to manufacturing and mining. They would therefore prefer investment in industry.

Torn between these two choices, a country is forced to resort to past experiences and economic history for guidance. These again are not unanimous. Most of the developed countries of today, such

as England and the United States of America, had a broad-based agriculture before industrializing, and after the successful industrialization, economic development and growth seem to be self-sustaining. Because of this observation, some developing countries regard improvements in agriculture as prerequisite for successful industrialization and rapid economic development.

On the other hand, Japan and Italy appear to have industrialized quite successfully without first putting their agriculture in order. This brazen departure from the sequence of evolution poses both a problem and a temptation for the underdeveloped countries in quest of a quick but sure way of accelerating their development; a problem in the sense that the uncertainty of industrializing without a productive agriculture looks like sitting on a keg of gun-powder with a naked-fire in hand, a temptation because of industrializing, Japan has become within a short space of time, one of the developed countries of the world.

Recent events in U. S. S. R. have not helped matters. There, the industrial sector of the economy is well ahead of the agricultural sector. As a result, the agricultural sector is incapable of producing enough food for feeding the industrial workers and raw material for the factories. As a result the industrial sector of the economy drags which leads to an imbalance in the economy. The government after spending an enormous amount on food importation has decided

to do something by way of improving her agriculture.

Eastern Nigeria, either out of long association with Britain, or out of the conviction that a productive agriculture is a good foundation for a stable economy, decided to emphasize improvements in agriculture through the establishment of Farm Settlements - Settlements for trained farmers.

This decision to develop the agricultural segment does not preclude the side-by-side development of light industry which would be incidental to the development in agriculture. For instance an improved agriculture may call for the provision of fertilizers and thus the need for chemical industry. Or, a well-designed agricultural implement and an efficient transportation system may call for more steel and create the need for steel industry. Steel mills would then call for electrification and also provide steel for the manufacture of such low-budget consumer goods as bicycles and autocycles.

The decision to seek first the development of agriculture as a prelude to development of industry is comparable to the biblical injunction: "Seek ye first the Kingdom of Heaven and all its glory, and all these things shall be added unto you."

The writer will try in this thesis to give an analytical appraisal of the possible impacts of these Farm Settlements on the economic development of Eastern Nigeria.

EASTERN NIGERIA: HISTORICAL BACKGROUND

Eastern Nigeria is one of the Regions of the Federal Republic of Nigeria which is a member of the British Commonwealth of independent nations.

Situated at the eastern corner of the Gulf of Guinea on the west coast of Africa, Nigeria embraces an area of about 356,669 square miles which lies between latitudes $4^{\circ} 20'$ and $14^{\circ} 00'$ north and longitude $2^{\circ} 20'$ and $14^{\circ} 30'$ east so that it is entirely within the tropical zone. It is bounded on the north by the Republic of Niger, on the west by Dahomey and on the east by the Federal Republic of Cameroon. The Gulf of Guinea lies to the south. The greatest length of Nigeria from east to west is over 700 miles and its greatest width from north to south, over 650 miles.

Owing to its large size, the Federation of Nigeria presents a representative cross-section of the main physical characteristics of West Africa. Along the eastern coastline of the country lies a belt, from 10 to 60 miles in width, of mangrove swamp forest intersected by rivers and creeks. North of this region is a zone of tropical rain forest and oil palm bush which stretches inland in width for some 100 miles. Beyond this zone the vegetation changes from open woodland to grass Savannah as the elevation changes. There are very few mountains except the Cameroons mountains along the eastern boundary

and the central high plateau, Jos Plateau, which rises over 6,000 feet above the sea level.

The political history of Nigeria before the creation of the Regions would not be very relevant to the theme of this thesis and so the writer apologises for skipping this stage.

Eastern Nigeria as a Constitutional entity came about as the Constitutional recommendations made by Sir Arthur Richards (now Lord Milverton), the then governor of Nigeria, to the Secretary of State to the Colonies, Colonel Oliver Stanley, on December 6, 1944. These recommendations with few alterations after passing through the processes in British Parliament were passed into law and came into operation on January 1, 1947. This Constitution generally referred to as 'Richards' Constitution', after its framer, divided Nigeria into three Regions: Northern, Western and Eastern.

Further constitutional developments continued. In 1954 Lagos was declared to be Federal territory and was separated from the Western Region. At the same time Southern Cameroons, formally under Eastern Nigeria, was established as a quasi-federal territory. In 1957 Eastern Nigeria became self-governing. The long-sought-for independence came to the Federation of Nigeria on October 1, 1960. In 1961, Nigeria became a Republic under the British Commonwealth. In 1964, a Mid-Western Region was carved out of the Western Region so that the Federal Republic of Nigeria is now divided into four unequal

regions and the Federal Capital (Lagos). Its population of 55,670,000 is divided among the component regions as follows:

Northern Region:	29,809,000
Eastern Region:	12,394,000
Western Region:	10,266,000
Mid-Western Region:	2,536,000
Federal Capital (Lagos):	665,000

Eastern Nigeria: Ethnic Groups

Eastern Nigeria with a population of 12,394,000 occupies an area of about 12,903 square miles on the South-eastern part of the Federal Republic of Nigeria. Within the region is a multiplicity of linguistic or ethnic groups commonly referred to as "tribes". These include the Ibos, Ibibios, Efiks, Ijaws, Kwa, and Ogonis.

The Ibos are the second largest tribal group in Nigeria, (8, p. 8) and the largest in Eastern Nigeria. They are a single people in the sense that they speak a number of related dialects, occupy a continuous tract of territory and their social structure and culture are common in many respects.

The basic social unit among them is the localized patrilineage (Umunna) composed of closely related families, subject to the moral authority of the male head (Okpala) who arbitrates in internal disputes and represents the group in its external relations. Wives of members



NIGERIA: REGIONS

of a lineage, and other co-residents, are subject to the authority of the lineage head, but the heads of their own lineages may intervene on their behalf any time.

Men and women have organizations (age-groups) based on their dates of birth and marriage, and these societies transcend village groups and even county boundaries. They do many things together, including such social activities as wrestling among the men, and regular meetings are held where some decisions are taken with regard to the activities of the societies. Some dues and levies are paid by the members into the coffers of the society mainly for social events such as annual feasts.

The Ibos have been known for their 'aggressive' attitude. It could be plausibly argued that this 'aggressiveness' has been a feature resulting from stubborn demographic and sociological conditions. The demographic problem could be said to be regionwide: 12,394,000 people in an area of 12,903 square miles, but is more pronounced in the Provinces of Onitsha, Umuahia and Owerri where the Ibos live. In Owerri Province, the population density should be over 537 per square mile by the 1963 census. It was 537 by 1952 census (8, p. 10). The Ibo people, crowded upon poor and insufficient land, have consequently been forced to seek employment, in larger numbers, in other parts of the country. Sociologically, the lack of any large-scale social and political organization creates in the Ibo an equalitarian

belief that there are no social or class barriers to self-advancement and, thus, excites in him a spirit of aggressive competition. Because of this highly competitive nature of their society and their ultra-democratic attitude to, and intense dislike and suspicion of, any form of external government or authority, the Ibo people have, in fact, proven to be most difficult to govern in Nigeria. What is more, they have equally earned the antagonism of the other tribal groups in the country and are given nick-names by these. For instance, the Hausas call them 'nyamiri', the Yorubas refer to them as 'Kobokobo'. Even in the very Eastern Nigeria, the Ibibios call them 'Uneghe' and the Ijaws 'Primapu'. Be that as it may, the Ibos are still a *Sine qua non* in the structure of Nigeria. As a keen foreman put it in Hausa:

Akwore 'nyamiri' akwore aiki
Aberi 'nyamiri' aberi amaja

Literally interpreted it means:

If you fire the Ibo you fold up
If you leave the Ibo you leave truancy.

Despite their individualism the Ibos are clannish and could hold together very closely in non-Ibo communities. In fact the further away the Ibos move from their tribal home, the closer they gravitate. Make no mistake about it. The Ibos are not strictly homogenous. Though, indeed, they speak a common language and occupy a continuous territory, there are marked dialectical and cultural variations between their Subdivisions. It could be safely said that the nearer

the Ibos are to their tribal territory, the more segregated they become. For instance, the Ibos in Northern Nigeria are so closely knit that one would think they are from the same town. No sooner they are in Eastern Nigeria than they group into 'Onitsha-Ibo' and 'Owerri-Ibo'. In Onitsha Province they again divide into 'Onitsha' and non-Onitsha' and the division continues even to the village level. Howbeit, the Ibos have the ability to close ranks and unite against a common enemy.

The typical Ibo Settlement pattern consists of loose cluster of homesteads irregularly scattered -- the tradition of compact Settlement among the Cross River groups, are divergent in this respect -- and often surrounded by a mud wall.

The Ibos are predominantly subsistence farmers. Yams and Cassava are the main staples. Important subsidiary crops are: Cocoyams, Maize, beans, Okra, peppers and gourds. The permanent crops include: Oil Palm, Raffia Palm, Coconut, Cocoa, Citrus, Mangoes, Rubber, Avocado, Pawpaw and the rare crops are: Ube (Pachylobus), Ukwa (Breadfruit), Ukpaka (Oil bean) Udala, Ugolo, Utu and Nmimi.

The Ibibios are found to the south and south-east of the Ibos mainly in Calabar and Annang Provinces. They are the second largest linguistic unit in Eastern Nigeria.

Unlike the Ibos, they live in towns and delight in referring to their large towns with pride such as when they talk of 'Ubio-Calabar',

like the Ibos, they are subsistence farmers producing yams, coco-yams and cassava. They also produce Palm Oil and Kernel. There are no large plantations except those owned by Companies and Corporations such as the United Africa Company and the Eastern Nigeria Development Corporation.

The Ijaws occupy the deltas of the River Niger. Because of their nearness to the sea their soil is saline and not suitable for raising food crops. Their main occupation is fishing and trading. An all-out effort is made by the Ministry of Agriculture to explore the possibility of growing rice in the Mangrove Swamps and there is every hope that the efforts would prove successful. Mineral oil is the cash earning product and an Oil Refinery is under construction at Port Harcourt, a sea port very near the oil producing areas of Oloibiri and Afam. Like the Ibibios, the Ijaws live in towns.

Eastern Nigeria: Land Ownership

"Land belongs to a vast family of which many are dead. A few are living and countless numbers are still unborn" (38, p. 61).

The system of land ownership in many instances has militated against developments in agriculture as we read from economic history books. The feudal lords of the feudal era stood for sometime against the agrarian revolution in England in the Seventeenth Century. Today, after the lapse of some three hundred years, land tenure still is an

obstacle on the way to agricultural development.

Because of the importance of the system of land ownership and its effects on other economic activities, the writer would like to give it a wider discussion.

In British West Africa, no such drastic step has been taken to interfere with the indigenous system of tenure, and there have been no European settlement or plantations to complicate the picture. The reason is partly because West African societies have evolved rather larger political units which have survived into the era of European contact and penetration; this has meant a profusion of larger group land areas than are to be found in Central and East Africa. It is a notorious fact that West Africans have evolved as part of their social structure the system of living in villages and towns, whereas scattered homesteads over often beautiful country have characterized the social arrangements of most of the Central and East Africa. The relevance of this point is that the pattern of Agriculture often depends upon such political and social distinctions . . . The second and probably the major reason why West African land tenure has been so little affected by external influences has been the protective policy of the British administration against the acquisitive tendencies alike of African Chiefs and of European investors during a critical stage of evolution of the west coast. Thus, when prospectors and 'concession hunters' were menacing the established land tenure system Sir William Maxwell, then Governor of the Gold Coast (now Ghana), introduced a land bill in 1897 in the Legislative Council said: 'Native chiefs cannot be permitted to deal uncontrolled with public rights, and the transactions, by which it is alleged that private rights have been created over public land, in a manner wholly unknown to the native tenure of West African tribes, require examination and possibly extensive modification'.

The aim of this bill was to make it impossible for the Chiefs to deal with family or community land as if they were the absolute fee simple owners and so entitled to pocket the proceeds of alienation of the land or its products to alien investors, who were naturally looking for absolute owners of the land in their accustomed European sense. The Bill was, however, not passed by the Legislative Council because both

Chiefs and politicians opposed it, though for different reasons; the Chiefs because it will deny them a source of ill-gotten wealth, and the politicians because they feared that the administration, as the prime mover of the Bill, might ultimately gain complete control of Gold Coast land.

A somewhat similar issue faced Nigeria in 1924. Lord Leverhulme, in a speech before the Liverpool Chamber of Commerce in July of that year, said that he had no doubt that 'in the cultivation of plantations there must be some security of tenure on land. . . . But somehow or other our politicians. . . . have for many years now viewed the African from an entirely different point. . . . Capital will not flow without security. . . . The African native will be happier. . . . when his labor is directed by his white brother.' But far-sighted men like Sir Hugh Clifford, who as Governor has had wide administrative experience in both the Gold Coast and Nigeria, were staunch in their opposition to the idea that limited liability companies should be permitted by the government to establish plantations for the production of Palm Oil and Palm Kernels in Nigeria. In his address to the Legislative Council on 6 February, 1925, Sir Hugh said: 'It is my earnest hope that the land policy of the government, which in my judgement is the corner stone upon which the entire edifice of native prosperity depends, will never be suffered to be altered or abandoned, no matter how strongly it may be urged that such action is demanded in the name of economic expedience. ' In all the four British territories in West Africa the alienation of land to non-Africans without the Governor's consent is forbidden by law. The largest quantum of interest in land that an alien can acquire in West Africa is normally a lease for 99 years. In some areas, as in the Gold Coast, there exists legislation providing that any grant of land or of mineral or other products of land by an African which involves a minimum area of 5 acres to a non-African or 25 acres to another African must be submitted to a judicial enquiry. In such cases, the Court of enquiry is requested to ensure that the customary rights of the African inhabitants of the area concerned are duly protected, and that a fair and just bargain has been made between the parties. (7, p. 289-290).

It has been necessary to quote Dr. Elias very profusely because, as the writer mentioned earlier, of the importance of land tenure on

any agricultural development in any part of the world and also to bring out the emphasis on land which Sir Hugh said in 1925, "IS THE CORNER STONE UPON WHICH THE ENTIRE EDIFICE OF NATIVE PROSPERITY DEPENDS." And which forty years later -- Sir Hugh addressed the Legislative Council, the then Nigerian equivalent of the U. S. Congress, on February 6, 1925 and President Johnson addressed U. S. Congress on February 4, 1965 - the President of the United States of America, a country whose agricultural productivity is legendary, confirmed by stating almost exactly what Sir Hugh said in these words: "THE BOUNTY OF THE EARTH IS THE FOUNDATION OF OUR ECONOMY" (43, p. 1). It would be a good mental exercise to speculate on what would have been the economic fate of Eastern Nigeria, with its teeming population, had Sir Hugh yielded to the pressure and allowed land alienation. The writer has no doubt in his mind that the West African native must have lost his land as his brothers in South Africa.

It is a common feature of all types of African land tenure that 'ownership' is ordinarily never vested in an individual but in a group, this group may be the family or extended family, or it may be a village consisting of a group of related families or lineages. Within each such group, however, individual members have specific portions allotted to them by the family head, in much the same way as the local Chief allots - at least nationally - specific parcels of the village land to the

constituent family heads according to need. A cardinal principle of all these allotments is that no individual allottee may alienate his portion without the consent of his family or at least of all the principal members of it. No valid title can therefore be acquired by a purchaser from an individual allottee of family land. While his allotment lasts, however, he enjoys virtually all the plenitude of powers of cultivation and use that an absolute owner enjoys over his land in western countries. He can grant a short and temporary loan or lease of it to an outsider within the community, and at his death his holding is heritable by his own children.

Family land may be converted into individual holdings by the partitioning of it among all members entitled. This may take place at a family conclave or it may be ordered by a court following an appeal to it from one or more of the members of the family. Partition is ordered where it is found to be both desirable and inevitable in the interest of all concerned.

As will be clear, the greatest argument against the customary rules of inheritance and succession in Africa is that they often lead to uneconomic fragmentation of holdings. This is all the more so in Eastern Nigeria where all that has to be split up among the inheriting children and other relations is a medium sized farm or building. Even where the patrimony to be shared is large and the individual's partitioned lot is economically viable, a stage is soon reached,

probably in the second or third generation, at which further subdivision is out of the question.

Because of the difficulties and problems underlying the customary tenure systems, agricultural improvements run into pure inhibiting factors. Many experts have suggested some methods of surmounting the problems. Some have advocated the introduction and encouragement of large-scale system of enclosure and resettlement of land. This is the view expressed by D. C. Igwe under the title, 'The Need for Enclosure and Land Resettlement in Nigerian Agriculture' in *Tropical Agriculture* Vol. 31 No. 1, January 1954.

Recent research has proved that enclosure in England was not merely a landlords' movement. The peasantry were allowed to enclose bits of the common land, changing in the process the traditional system of land tenure. It was an evolution from status and custom to contract and law... Enclosures, strongly supported by good husbandry legislation, may indirectly check this tendency (fragmentation of land) according as the movement makes land appear scarce. Thus when land has been enclosed for upwards of thirty years, the population continuing to rise, the total area of the country will become 'smaller' than under the system of shifting cultivation so that abundance of land on which to let loose reckless broods of children will no longer be a reality and uncontrolled procreation will disappear among certain farmers who will be forced to swallow their greed or else circumvent their neighbors, who are as eager as themselves to retain their land. Finally, the things of the spirit must not be overlooked in agricultural matters. All intelligent farmers in advanced countries are sentimentally attached to their land, sharing with it its vicissitudes, nursing it in times of difficulty, so that each farmer can say proudly, 'This land is mine and I made it'. We do not believe that the Nigerian farmer is incapable of such sublimation. Let him focus his mind more closely over a given area suitably closed so that by dint of hard work, compelled by the circumstances, he

can in a few years time say, 'This land is mine and I made it' (8, p. 68).

Other authorities seem to have favored gradual and evolutionary development through co-operative farming as the best line of advance. Probably the most interesting recent exposition of this view is that expressed by J. Gordon, Department of Agriculture, North Borneo (formerly of Ghana Agricultural Department).

It is not so much the system of land tenure which has made English agriculture what it is today, but rather a peculiar concatenation of circumstances -- ecological (soil and climate), economic, social and even psychological, which has had as its end-point the present system of English land tenure -- a system, which in a West African context is not necessarily good . . . Any sudden change to individual ownership would lead to unending lawsuits, owing to the existing confusion, as to land rights, at least if the Nigerian situation is anything like that in the Gold Coast . . . It seems likely that the road to co-operative farming, though it bristles with obstacles and difficulties, both technical and social, is the more promising one for West Africa to follow. (12, p. 305-306).

As far as changes in the system of land holding is concerned, the writer holds the same views as Mr. Gordon namely that changes should be made but gradually. It would be unrealistic to recommend revolutionary changes because no government would be prepared to face the social and political consequences of such a move. The writer is aware of the disturbances that followed the acquisition of land at Abeokuta by Western Nigeria Ministry of Agriculture and Natural Resources for the Farm Settlement there. The workers were in constant fear of their lives because the natives threatened to shoot them.

The writer would not be surprised if the Principal Agricultural Superintendent in charge of the project went about his duties armed. The position in Eastern Nigeria would even get worse before it gets better. At Umukike, the natives are still not happy because the Ministry of Agriculture acquired some land legally and constitutionally, for the extension of the Agricultural Research Farm. Subsequent request met with stout opposition and failure.

To acquire the sites for the present Farm Settlements, the Premier of the Region had to meet the people himself. It is difficult to quantify suffering and the writer would not even want to attempt to say how much convincing it took the Premier, at least at the initial stages, to talk the people into giving out the required land for the Farm Settlements.

The problems surrounding the land tenure are formidable; there is no doubt about that. But something must be done. The writer would suggest the following line of action:

Farmer Survey: Because occupation is ill differentiated, it is difficult to pin down people's occupation in Eastern Nigeria. For instance a man can be a laborer, farmer and trader at one and the same time. As a result of this it is difficult to assign occupations. The writer is convinced that the number of farmers in Eastern Nigeria is not known; if he is correct in his hypothesis, then it follows that the problems of the farmers have not yet been identified and so

solutions could not be prescribed for them. It would therefore be necessary for the Ministry of Agriculture to say who should be regarded as a farmer. Is a farmer the casual laborer with a patch of weedy etiolated cassava behind his house? Or is he the dealer in stock-fish who has some stray stands of plantain where his great-grandparents lived? As mentioned earlier, it is difficult to do this but since a start must be made, there is no alternative.

After the Ministry has decided on who should be classified as a farmer, then this should be passed along to the Extension Service for the Extension Assistants to make an accurate survey of the farmers in their divisions. After a check, divisional list of farmers could be compiled and copies made available to the Agricultural Officers in-charge of the Provinces. This done, then the next step is:

Farm Survey: It would be difficult to make a survey of the farmers; it would be more difficult to make a survey of the farms. This is because as a result of the system of shifting cultivation, farm sites change hands like coin in the open market. Here the writer would recommend persuasion. The farmer, for what he is worth, should be convinced that it is in his best interest to keep to a farm. It may not be too much to promise them free fertilizers as a guarantee that the yields would not decline. Again this work is for the Extension Service.

Soil Survey: This would be the simplest of the three surveys

since the farmers would not object provided the object is explained to them. On the basis of the survey, crops could be recommended for the different soil classes. The Soil Survey people could handle this.

Farm Consolidation: When the farmers and farm lands are known, steps could be taken to consolidate them. The farmer may say he cannot handle a larger farm. In this case he could be given some loan if it is proved by his credit worthiness that he could benefit from such a loan and that he has the ability to manage it.

Population Limitation: In a country where seats in parliament are allotted on population basis and amenities distributed on the bargaining power of the members of the House; it would be unthinkable to talk of population limitation. It would be mid-summer madness to suggest population limitation in Eastern Nigeria where much premium is attached to the number of children. But the fact must be faced: Something must be done about the population. As development and health measures bring about a decline in death rates, without population limitation, growth will speed up. This in turn will bring an increase in the percentage of women of child-bearing age, which will make future limitation increasingly difficult. Admittedly it involves concerning ourselves with the shape of a world which we shall not live to see; but it is a shape which will be immensely influenced by the decisions which are made now.

The population of Eastern Nigeria is 12,394,000 and the area is

12,903 (31, p. 1). The density of population by simple arithmetic is over 900 persons per square mile. This has built-in economic and social problems.

"We should be a far more advanced nation if our population were not what it is" Mr. Nehru (44, p. 213).

Eastern Nigeria: Politics

The penetration and extension of British influence within Nigeria were carried out by three different sets of officials representing, respectively, the Colonial Office, the Foreign Office and the Royal Niger Company. Each administered large areas of its own right with little definition of boundaries.

The Royal Niger Company with the efforts of Macgregor Laird entrenched itself in the interior along the Niger and Benue Rivers and in 1856 (9, p. 11) opened up the United Africa Company at Onitsha. In 1861, the island of Lagos and the adjacent coastal area had been annexed to the British Crown as a Colony and in 1893 a protectorate was proclaimed in the Southern Niger delta area. On January 1, 1900, the Royal Niger Company's Charter was formally surrendered and the Protectorate of Nigeria was created. In 1906 the Colony of Lagos was amalgamated with the Protectorate of Southern Nigeria. The final stage in the process of consolidation came on January 1, 1914 when the Northern and Southern Provinces were amalgamated into the

Colony and Protectorate of Nigeria under the energetic Governor-Generalship of Sir Frederick (later Lord) Lugard.

From the 1940's Nigeria started to fall apart. On January 1, 1947 Nigeria was divided into three Regions: Northern, Western, and Eastern. Thus, constitutionally, Eastern Region came into being after the Regionalization. In 1954, Southern Cameroons, formerly part of Eastern Nigeria, was separated from the Eastern Region. In 1957 Eastern Nigeria became self-governing. The Federation of Nigeria became fully independent and Sovereign on October 1, 1960.

Eastern Nigeria is headed by a Premier and a Governor who are both dedicated to the policy of improving the agriculture of the Region as a sure way of improving the well being of the people they lead. For, hear the President of the United States:

"Food is a powerful weapon for peace. People who are hungry are weak allies of freedom. Men with empty stomachs do not reason together" (43, p. 12).

Eastern Nigeria: Education

Educational development in Eastern Nigeria received its initial impetus from Christian Missionary activities, which still play an important role. The first mission was established at Calabar in 1846 (9, p. 68) by the Rev. Hope Waddel in whose memory Hope Waddel Training Institute still stands. Ten years later, in 1856 (9, p. 11)

the Church Missionary Society established at Onitsha and in 1864 (9, p. 11) at Bonny.

After the initial difficulties of getting converts to the Christian religion and children for the schools, there was a tremendous surge of enthusiasm for education. More schools were opened and to get teachers, Teacher Training Colleges were built.

During and following World War I, the increase in number of schools was so rapid that the Government felt the need for more effective control. The Education Code of 1926 for Southern Nigeria established requirements for registration of teachers and the inspection of all schools. But, the mission schools continued to produce primary and secondary educated people. In 1937 they were producing about 95 percent (9, p. 11) of all the primary educated people of Southern Nigeria.

Government schools were opened at Onitsha and Owerri in 1906.

Primary School education took a period of nine years. The classes ran from Infant Class I to Infant Class III and then Primary I or Standard I to Primary VI or Standard VI. At the end of Standard VI an examination is conducted by the Education Department and the successful candidates are awarded Standard VI Certificates. The number of years spent in the Primary School has now been reduced to eight years.

Holders of Standard VI Certificates who wish to go into the

Secondary Schools take a Common Entrance Examination and if successful are admitted for a five to six-year course (the Mission Grammar Schools do five years while the Government Colleges do six years because boys after Standard V can take their entrance examinations) at the end of which Cambridge School Certificate Examination is taken. Successful candidates are awarded the Cambridge School Certificate. "All final examinations are marked by the University of Cambridge Examination Syndicate according to standards in the United Kingdom" (42, p. 81). The place of Cambridge School Certificate has now been taken by West African School Certificate.

Before 1948 when the University College Ibadan began operation, there was no University in Nigeria. Parents with sufficient money sent their children overseas to further their studies. People without sufficient money but with abundance of the spirit of adventure stowed away; those with neither sufficient money nor the spirit of adventure resorted to correspondence tuition.

It would be observed that the educational system has been excessively academic at the total neglect of arts and crafts. To correct this, the Nigerian College of Arts, Science, and Technology was opened at Enugu in 1952. It provides an education similar to a polytechnic institute in the United Kingdom or the United States.

In 1960 the University of Nigeria at Nsukka opened its doors to students. Regardless of the number of universities in Nigeria, the

Eastern Nigerian students are seen in many overseas universities.

"Since 1938 more than 75 percent of all Nigerian students in the United States have been Ibos" (8, p. 47).

Eastern Nigeria: State of Economy

Eastern Nigeria is still a pioneer land with an economy based on the production of raw materials, chiefly agricultural commodities. The farmers grow food crops as a means of direct subsistence and cash crops for what may be described as reserve, to be called in whenever a shortage arises in their family budget. They regard cash crops as reserve because they are more readily marketed than food crops. If, as mostly happens, the value of a farmer's food crop is less than would normally support his family, it becomes necessary for him to call in part of the reserve of funds accruing from the cash crops to supply the deficiency. What remains of this reserve, throughout the Region, goes out in the form of export crops.

The farmer's implements are of primitive design and construction; they practice shifting cultivation, and their business is unorganized and under-capitalized. Consequently production per person and per acre is low. Although some animals are kept, they are not integrated into the farming organization and their manure is not used for increasing soil fertility; nor are cattle used for draught purposes. However, the farmers are able to produce nearly all of the food

consumed in the Region as well as large quantities sent across to the other Regions of Nigeria and also for export. A number of the agricultural commodities such as Palm Oil and Palm Kernels are in active demand in the world markets.

While good facilities exist for the marketing of the major export crops, the storage, distribution and marketing of food crops leave much to be desired and discourage many farmers from producing in excess of their immediate needs. The inadequacy of these facilities also results in high costs of distribution and low returns to the farmer as well as large seasonal fluctuations in the prices of basic foods.

This agricultural pattern is uneconomic and normally provides only a low standard of living. While some farmers have over the years been capable of supporting a reasonable standard of living, there are still many who are unable to support themselves at even the standard of living of a paid laborer.

Eastern Nigerians are famous for their business acumen and most of them combine very dexteriously multiple businesses, making occupational specialization very imperfect. The principal cash crops are controlled by a quasi-government body, the Eastern Nigerian Produce Marketing Board, through allowing only licensed buying agents to buy the export crops for the Board on payment of commission. Most of the export crops are evacuated through the port at Port Harcourt.

Industry is still in its infancy and contributes only modestly to the Gross Domestic Product (Gross National Product). Mineral oil at Oloibiri and Afam is in commercial quantity and a refinery at Port-Harcourt would make possible the exportation of refined instead of crude oil. Natural gas has been discovered near the oil wells and arrangements are in the making to use this for rural electrification. Mineral oil has contributed enormously to the buoyancy of the economy. It has attracted foreign investors to Eastern Nigeria and it would be basic to the establishment of more industries.

As part of the Federal Republic of Nigeria, Eastern Nigeria contributes toward and shares in the general economic prosperity of the country. "Nigeria's estimated Gross National Product (1962 in current market prices) was \$3, 470 million. This was the largest GNP in tropical Africa" (41, p. 8).

Eastern Nigeria: Transport and Communication

Lord Fredrick Luggard who amalgamated Northern and Southern Provinces of Nigeria in 1914, and the first Governor-General of Nigeria once wrote: "The material development of Africa may be summed up in one word - transport" (14, p. 85).

By African standards, this term is not used in a derogatory sense. Eastern Nigeria is well served by road and sea but not adequately by air and rail transport. By the standards of the United

States of America, she is way down. Her small and winding roads just cannot compare with the very wide High and Free-ways of the United States nor her Steam Coaches assay to match the luxurious Pullman Coaches that run the transcontinental railways.

Federal (Trunk 'A') and Regional (Trunk 'B') roads connect the Region to other parts of the country. These roads are not wide enough and efforts are being made to widen them.

The port at Port Harcourt, 41 miles up the Bonny River, is the most important port in Eastern Nigeria. Frequently the feeding rail lines and roads are so inefficient that congestion is caused in the port resulting in expensive delays. There is first the cost of chartering additional vessels to offset time lost. Other increased costs result from payment of overtime wages, greater spoilage, breakage and pilferage, penalties in use of transit sheds and larger interest payment on goods tied up in shipment. Sometimes there are losses resulting from failure to deliver goods to market at the most propitious time. The Ports Authority and the Railway Corporation it is hoped would do something about this. Calabar and Bonny ports play a lesser part than Port Harcourt. The Niger and Cross rivers with their tributaries provide cheap and ready-made means of transportation. On the inland waterways, canoes, which are the traditional means of transport, have been supplemented in recent years by motor-boats.

There is at present no international airport in Eastern Nigeria.

There are however aerodromes all over the Region and Eastern Nigerians who travel by air are served by these aerodromes through the services provided by the Nigeria Airways which also link Nigeria with other West African countries and with Britain.

A railway of 3' 6" guage running from Port Harcourt terminus connects Eastern Nigeria to Northern Nigeria. There is no direct service between the East and the West except through the North by way of Kaduna Junction. The trains' coaches are congested especially during the festivities, Christmas and New Year when there are more passengers travelling between the East and the North. More rail-lines are necessary for the transportation of agricultural produce now inefficiently carried by lorries (trucks).

Post offices and postal agencies in all the larger towns provide Eastern Nigerians with postal services. The major centers of the Region are connected by a network of Radio Stations which provide transmission paths for trunk calls (long distance calls). Within the towns there is a changeover to automatic telephones. The main post offices serve the people's need for telegraphic communication. External telephone and cable services are provided by the Nigerian External Telecommunications Limited, a company in which the government has controlling interest. There is a television station at Enugu.

There can be no serious doubt that in sociological, political and economic terms transport problems are among the most important

Eastern Nigeria faces. If the products are to move to the markets, there must be a good transportation system. The tremendous significance of transport, not only in economic life but in making possible social and political intercourse must have been responsible for Lord Fredrick Luggard's remark quoted at the beginning of this discussion, namely: "The material development of Africa may be summed up in one word - transport" (14, p. 85).

FARM SETTLEMENTS

Historical Background

The historical recency of Farm Settlements in Eastern Nigeria tends to obscure the reality that Farm Settlements in a different dimension had been in vogue before this decade. The author refers to the Unit Farms of the 1930's and 1940's. Umudike Agricultural Experimental Station had Unit Farms A and B. Although these were not Settlements in the sense that numerous farmers were settled on the same site, they were really the forerunners of the present day Farm Settlements.

Evidences of farm settlements all over the continent of Africa date from the 30's. In the Northern Provinces of Nigeria, community developments were tried in the 30's and 40's and they are germane in many respects with the farm settlements.

The rural development and resettlement scheme of Anchau in the Emirate of Zaria was the first big-scale development in West Africa when it started in 1938. It became widely known for its success. A period of long and careful preparation by multi-scientific approach preceded the actual work of moving a population of 50,000 people from a territory where sleeping sickness and other illnesses prevailed into a healthy area surveyed for water supply, bush clearance, soil condition, and village layouts. The development was equally successful in

the introduction of cash crops and cattle raising and in the establishment of local industries.

The success of Anchau led to other settlements both in other parts of Nigeria as well as other parts of Africa. Niger Agricultural Project was established at Mokwa in Niger Province by the Colonial Development Corporation (CDC) in 1949. In 1953 Kano Agricultural Department opened the Chutar-biki (Anadaria) settlement. Meanwhile in the Sierra Leone, A. K. Murray, Agricultural Officer, Department of Agriculture, Sierra Leone wrote:

Since 1952 the Government of Sierra Leone has been investigating the possibilities of persuading the Fulas to settle. At present the scheme is very much in the nature of a pilot scheme and results have so far been encouraging. Hitherto, the Fula cattle owner has in the main been nomadic, moving on from one area to another in search of fresh grazing and water for his cattle (26, p. 105).

Mention was made of Agricultural Settlement Schemes in the Belgian Congo in *Tropical Agriculture* Vol. 33 No. 1 January 1956 page 1 and also of Tanganyika Farm Settlement Scheme in *Tropical Agriculture* Vol. 35 No. 2 April 1958 page 86 where the date of the founding of the scheme is given as 1952.

Despite the encouraging performances of some of the projects, others failed as a result of poor management.

Eastern Nigeria entered the race for the establishment of Farm Settlements rather late. In the author's opinion the lateness might be attributed to economic and social factors. From the economic point

of view, the economy of Eastern Nigeria was not very buoyant in the 40's and 50's when she was often referred to as the 'Poorest Region' as it is now. Also the failure of several agricultural projects all over Africa: Niger Development Project at Mokwa in Nigeria, East Africa Groundnut Scheme and Gambia Poultry Scheme drove fear into the mind of any government contemplating any agricultural projects or schemes. Socially, the system of land ownership differs to some extent from that in the Northern and Western Regions of Nigeria; because of this it is more difficult to get land of an appreciable size for projects.

Economic and political events of the 1950's made favorable impressions in Eastern Nigeria. Discovery of mineral oil in a commercial quantity at Oloibiri and Afam gave buoyancy to the economy. On the heel of this was the division of Nigeria into Regions in 1954 and the resultant competition among the Regions to excel in the provision of programs calculated to make for economic development. But by far, the most conducive political event to the establishment of farm settlement was a change of government in 1959 which gave Eastern Nigeria a dynamic Premier imbued with a desire to make the agricultural activities of his Region to be very productive in order to feed the people since: "Men with empty stomachs do not reason together" (43, p. 12).

The present-day farmers in Eastern Nigeria suffer from three

major problems: illiteracy, poverty and uneconomic size and fragmented condition of the holdings.

Lack of education among most farmers creates a barrier against the introduction of modern agricultural techniques and the proper use of credit facilities. High rates of illiteracy have been known to prevent people from acquiring certain skills and performing various types of services.

The farmers at present are so poor they cannot afford any capital investment. Because of low level of capital, the individual farmer produces on a very small scale. Where the produce is for export, time and labor are wasted in collecting the small bits into a good bulk; as the transportation methods involved are those using relatively little capital and much labor, the process of collection could be very slow indeed.

The small size and fragmented condition of the holdings make it difficult for a minimum economic-sized farm to be owned by any one farmer. The system of land ownership often makes it very difficult to consolidate into a single economic unit the many small parcels of land that one farmer may own.

The three problems cited above reduce the productive capacity of the farmers and consequently reduce the National Income. But an increase in the National Income is essential to provide a higher standard of living and expanded social services which are expected in a

vigorous, modern society. This requires the optimum use of the Regions natural resources and as Eastern Nigeria is mainly an agricultural Region, agriculture has a vital role to play.

Farming as at present practiced by the majority of farmers is incapable of meeting the challenge and a complete change in outlook and approach is required. The approach should consist of removing the obstacles on the way to productive farming - illiteracy, poverty and uneconomic size of farms. To do this, Eastern Nigeria decided to set up a Farm Settlement Scheme.

Farm Settlements: Types

Basically the Farm Settlements are areas of land obtained by the Government for the purpose of settling some selected and willing people. Seven settlements each of 12,000 acres are proposed. Each settlement when fully opened up will hold 720 settlers.

Settlers will be selected on the basis of physical fitness, age, literacy, previous farming experience and family size. In particular, people who have worked on Commercial or Government plantations will be especially encouraged since they are more likely to stand the strain of early settlement life better than other types of settlers (32, p. 8-9).

On arrival at the Farm Settlement, the settlers are housed under dormitory conditions. They will feed communally and from there work in developing the plantation under the guidance of an Agricultural Assistant or a Field-Overseer.

The settlers will be allocated a total of between 15 to 20 acres of holdings depending upon the type of Farm Settlement. The home-lot in each holding will consist of 0.5 acre for his house and garden plus 2.5 acres arable divided into 0.5 acre plots or six 0.4 acre plots (depending on the fertility of the land) for rotational cultivation of food crops for family consumption. In addition each settler will be issued with 50 pullets and an advance in cash or in kind to cover the first three months of feeding the birds. This will be debited against the settler (32, p. 9).

"The settlers will, . . . receive a daily subsistence of 3/- per person. . . As soon as possible, perhaps two years after admission, the daily cash allowance will be discontinued (32, p. 10)." All the amount spent on the settler would be debited against his account. So the sooner the settler ceases to draw the allowance and depend on his food farm, the less his indebtedness to the scheme.

Individual settler's accounts will be kept against which will be debited the subsistence allowance paid, the cost of building, planting and other materials and services issued as well as an appropriate share of the total cost of establishing the settlement. Such services as Government might expect normally to provide to a community such as the cost of supervising extension staff and their housing. . . will not be debited to the account of the settler (32, p. 11).

"Tractor ploughing and processing of farm produce will be established and run on hire basis until the settlers can take over and run them co-operatively" (32, p. 10).

The estimated cost of establishing each settler will be about £1500 and repayment starts in the seventh year. It will take 15 years to finish the repayment. Interest would be charged on the loan at three percent. The estimated net income of a settler when his tree

crops are fully established will be about £500 a year (a £ (pound) is equal to \$2.80).

The Farm Settlements are classified into four types:

1. Those growing Oil Palm and Rubber: Ohaji, Ulonna and Abak
2. Those growing Oil Palm and Citrus: Boki and Igbariam
3. Those growing Oil Palm and Cocoa: Erei
4. Those for irrigated Rice: Uzo-uwanni

Basis of classification is the type of crop grown and crops grown are dependent on the type of soil as determined through soil survey and analysis by the Soil Survey Section of the Ministry of Agriculture.

Farm Settlements: Objectives

The rapid population growth in Eastern Nigeria and the low productivity characteristic of shifting cultivation and subsistence farming made the government anxious and concerned. Anxious that the productive capacity of the Region's agriculture, without improvements, may not sustain the growing population for long; concerned because hungry people are often angry people who make the work of government very difficult.

To allay the anxiety and concern a decision was taken by the government to revolutionize agriculture through the establishment of Farm Settlements. The objectives include:

1. To train farmers in modern scientific agriculture and to

- create the means whereby they might most effectively practice what they had been taught;
2. to increase the overall agricultural production of the Region; to bring into productive use underpopulated and underdeveloped areas of land; to relieve congestion in more densely populated areas and to create employment for an expanding population;
 3. to create well distributed model agricultural areas for demonstrating modern farm practices to the surrounding backward agricultural districts and to assist farmers in the surrounding areas develop modern farms (32, p. 7).

Farm Settlements: Location

Eastern Nigeria contains twelve provinces: Enugu and Abakaliki border the Northern Region; Calabar and Ogoja to the east are near the Federal Republic of Cameroun; Yenagoa Degema and Uyo at the extreme south are in the delta of the river Niger; Annang and Umuahia occupy the center of the Region; Owerri and Onitsha border the mid-western Region.

It is the intention of the government to establish a Farm Settlement in each of the twelve provinces. In some provinces however, the natives and the government have failed to come to a compromise over a selected site, and the site has to be abandoned.

As of now, there are seven of the farms in the Region. Boki to

the northeast, Uzo-uwani to the northwest, Igbariam and Ohaji to the west and Erei, Ulonna and Abak in the center.

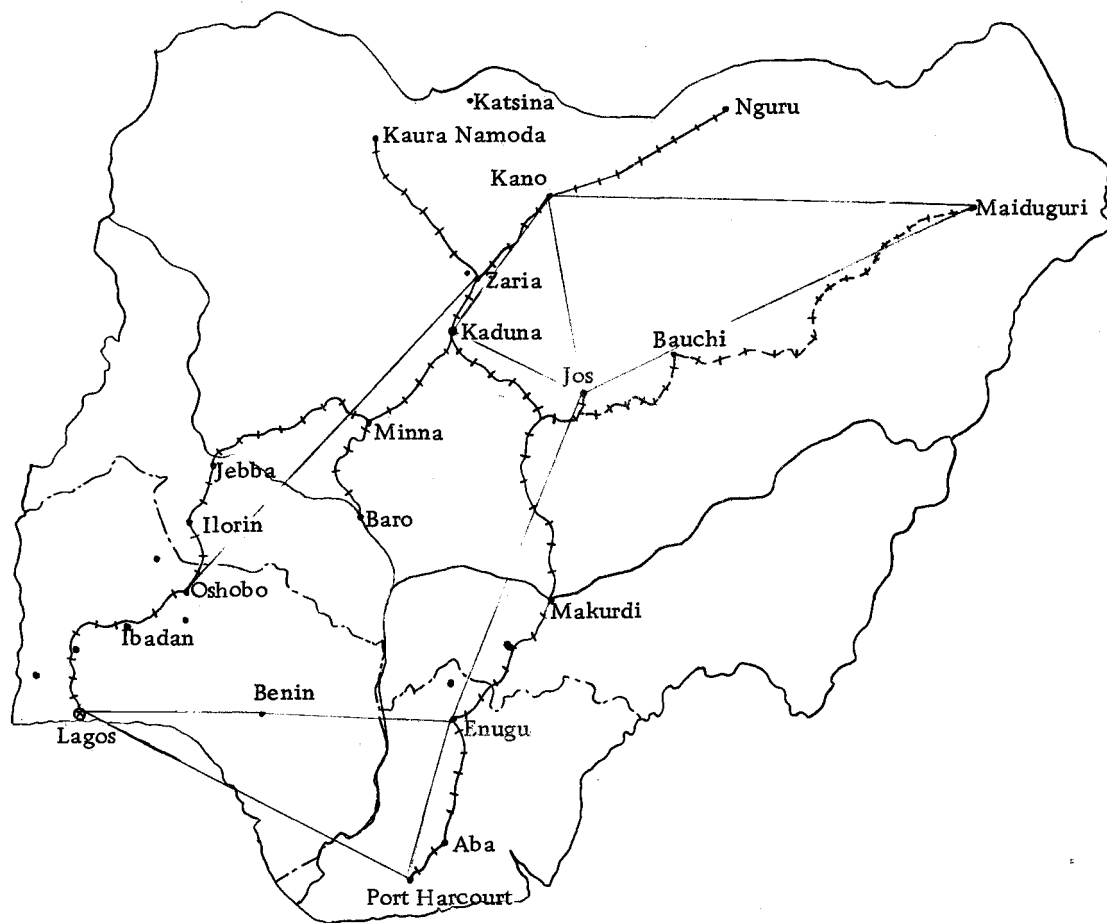
The objective is to locate the Farm Settlements so as to demonstrate modern farm practices to the surrounding backward agricultural districts so to assist farmers in the areas develop modern farms.

It is no accident therefore that most of the Farm Settlements are a bit remote from the urban areas of the Region.

TABLE I.

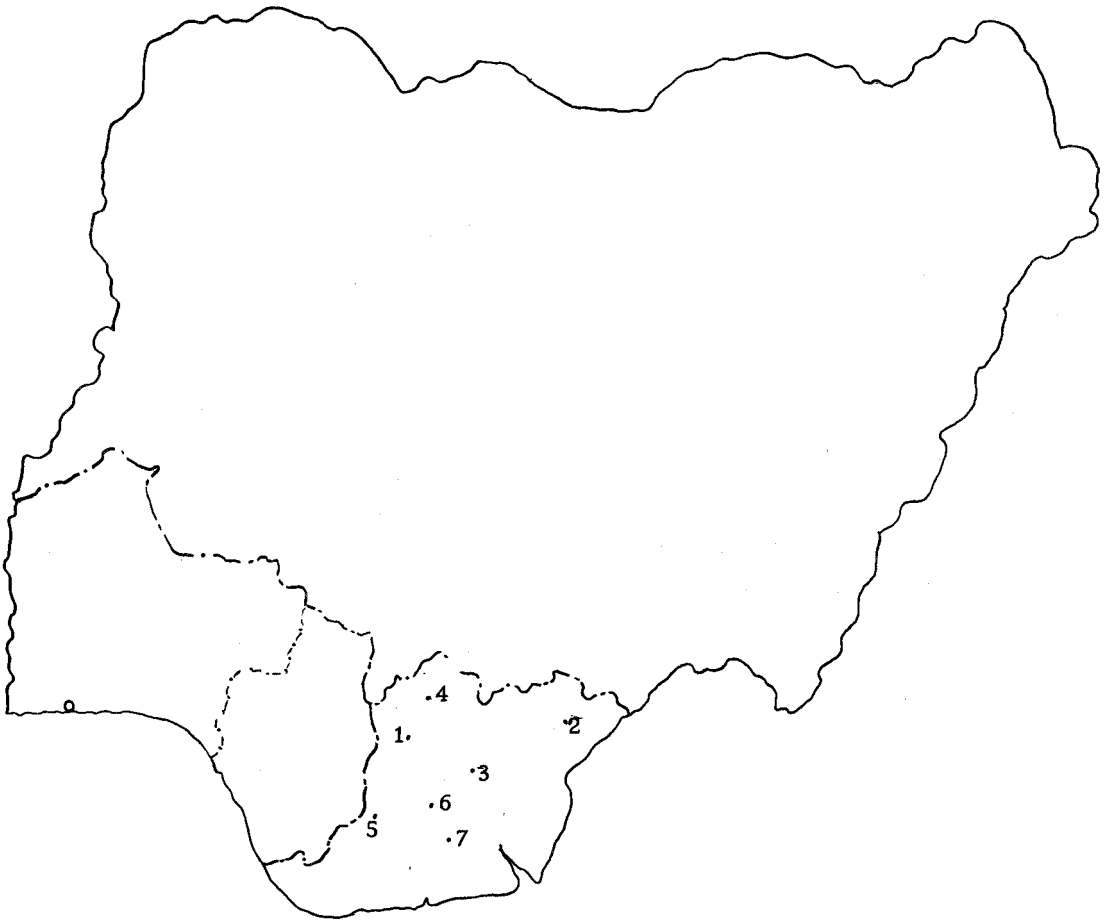
Type of Farm	Location of Settlement	Cost in Pound Sterling
Oil Palm/Rubber	Ohaji	1,190,336
	Ulonna	1,190,336
	Abak	1,190,336
Oil Palm/Citrus	Igbariam	1,386,347
	Boki	1,385,347
Oil Palm/Cocoa	Erei	1,118,596
Irrigated Rice	Uzo-Uwani	1,308,538
	Total	8,770,836

Source: (32, p. 7-8)



---+--- Railroad
———— Air Lines

NIGERIA AIR LINES AND RAILROADS



1. Igbariam
2. Boki
3. Erei
4. Uzo-Uwani
5. Ohaji
6. Ulonna
7. Abak

LOCATIONS OF FARM SETTLEMENTS —————

POSSIBLE IMPACTS OF FARM SETTLEMENTS

The Farm Settlements are now underway. Whether the scheme is a piece of political showmanship or a concrete exhibition of sound investment by those who direct the destiny of Eastern Nigeria, will depend on the verdict of time. This much is clear: it is yet too early for any definitive evaluation of the impact of Farm Settlements on the economy of Eastern Nigeria to be made. Howbeit, for better or for worse, many facets of the agricultural economy and society are sure to be affected. The writer will therefore make his analysis with the usual economic proviso: 'ceteris paribus', all things being equal.

Possible Impact on Agricultural Production

As has been discussed earlier, the low productivity in the agricultural sector is reflected in extremely low levels of living, which in themselves constitute a hindrance to progress and cause the self-perpetuation of poverty. The farmer does not in general spend his small cash earnings on improving his methods, nor his diet; usually it goes on taxes and debt payments and the purchase of a few consumer goods, and no savings are available for reinvestment in his farming enterprise.

The settlers on the Farm Settlements have compact areas of land which can be plowed and cultivated for them with a tractor; they enjoy

the technical assistance from the Ministry of Agriculture; they have in addition to other facilities a daily subsistence allowance. In short, they have all that could make for efficient production.

Tables II and III express the production forecast for settlement farms carrying Oil Palm (which yields Palm oil and Palm Kernels). Table IV is that for Rubber plantations on the Settlement Farms and Table V expresses the forecast for settlements carrying Cocoa. Table VI is the production forecast for farms on the settlements carrying Citrus. At present Citrus (oranges, grapefruits) go into domestic market such as between the Eastern and the Northern Regions of Nigeria.

The estimated income per settler's family averages out at £500 per annum. For the seven settlements each with 720 settlers this would amount to £252,000 ($£500 \times 720 \times 7$).

At present the average income grossed by a farmer in the Region is £50 (38, p. 65). The income of the settlers have thus increased by ten times above what a non-settlement-farmer would gross in a year. This increased income of the settlers would raise their living standard.

The increased productivity would mean added revenue to the Government. For instance, six of the seven Settlement Farms carry cash crops. The products would be marketed through the Eastern Nigeria marketing Board, a commercial arm of the government. The

TABLE II. PRODUCTION FORECAST, YIELD AND VALUE PER ACRE.

Crop: Oil Palm								
Year from planting	3-4th	5th	6th	7th	8th	9th	10th	11th
Harvest year	1st	2nd	3rd	4th	5th	6th	7th	8th
Lbs bunches/acre (a)	1,500	2,500	5,500	7,000	8,000	8,950	8,950	8,950
Lbs fruit/acre (60% x (a))	900	1,500	3,300	4,200	4,800	5,370	5,370	5,370
Lbs oil/acre (18% x (a))	270	450	990	1,260	1,440	1,611	1,611	1,611
Lbs kernel/acre (15% x (a))	225	375	825	1,050	1,200	1,342.5	1,342.5	1,342.5
Value of oil @ ₦ 47:15/- per ton per acre (₦)	5.8	9.6	21.1	26.9	30.7	34.3	34.3	34.3
Value of oil from 5,760 acres (₦) (as for Oil Palm/Rubber Settlement)	33,408	55,296	121,536	170,496	176,832	197,568	197,568	197,568
Value of oil from 3,600 acres (₦) (as for Oil Palm/Cocoa Settlement)	20,880	34,560	75,960	96,840	110,520	123,480	123,480	123,480
Value of oil from 6,480 acres (₦) (as for oil palm/citrus Settlement)	37,384	62,208	136,728	174,312	198,936	222,264	222,264	222,264

(32, p. 24)

TABLE III.

I Total value of Palm Oil from the three types of Settlements (₹)	11, 872	152, 064	334, 224	441, 648	486, 288	543, 312	543, 312	543, 312
Value of kernel @₹ 29 per ton per acre (₹)	2.9	4.9	10.7	13.6	15.5	17.4	17.4	17.4
Value of kernel from 5, 760 acres (₹) (as for Oil Palm/Rubber Settlement)	16, 704	28, 224	61, 632	78, 336	89, 280	100, 224	100, 224	100, 224
Value of kernel from 3, 600 acres (₹) (as for Oil Palm/Cocoa Settlement)	10, 440	17, 640	38, 520	48, 960	55, 800	62, 640	62, 640	62, 640
Value of kernel from 6, 480 acres (₹) (as for Oil Palm/Citrus Settlement)	10, 792	31, 752	69, 336	88, 128	100, 440	112, 752	112, 752	112, 752
II Total value of Palm kernels from the three types of settlements (₹)	45, 936	77, 616	169, 488	215, 424	245, 520	275, 616	275, 616	275, 616
Combined value of Palm Produce from the three types of settlements = I + II (₹)	137, 898	229, 680	503, 712	657, 072	731, 808	818, 928	818, 928	818, 928

Notes:

- (a) Prices used are marketing board prices and are subject to fluctuations.
 (b) In an Oil Palm/Rubber Settlement total acreage of Oil Palm = 5, 760.
 (c) In an Oil Palm/Cocoa Settlement total acreage of Oil Palm = 3, 600.
 (d) In an Oil Palm/Citrus Settlement total acreage of Oil Palm = 6, 480.
 (e) The table above shows forecast of production of palm oil and palm kernel in each type of settlement year by year.

TABLE IV. PRODUCTION FORECAST: YIELD AND VALUE PER ACRE.

Crop: Rubber										
Year from planting	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th
Harvest years	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Lbs D. R. C.	600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500
Value/Ac @ 1/6d per lb. D. R. C.	₹ 45	₹ 52.5	₹ 60	₹ 67.5	₹ 75	₹ 82.5	₹ 90	₹ 97.5	₹ 105	₹ 112.5
Value from 2,880 acres @ 1/6/lb.	₹ 129,600	₹ 152,640	₹ 172,800	₹ 195,840	₹ 216,000	₹ 239,040	₹ 259,200	₹ 282,240	₹ 302,400	₹ 325,440

Notes: (a) For rubber, the price quoted is much below world price for grade I smoke-cured sheet rubber.

(b) D. R. C. = Dry Rubber Content.

(c) For each settlement with rubber, total acreage of rubber = 2,880 acres.

(32, p. 26)

TABLE V. PRODUCTION FORECAST: YIELD AND VALUE PER ACRE.

Crop: Cocoa (Amazon)

Year from planting	3-4th	5th	6th	7th	8th	9th	10th
Harvest years	1st	2nd	3rd	4th	5th	6th	7th
No. of pods per acre	360	2,543	3,540	5,000	6,000	7,000	8,000
Lbs. dry beans per acre	63	254	354	500	600	700	800
Lbs. dry beans from 5,760 acres	362,880	1,463,040	2,039,040	2,880,000	3,456,000	4,032,000	4,608,000
Value at £ 96 per ton	15,532.0	62,701.7	87,387.4	123,428.6	148,114.3	172,800.0	197,485.7

Notes:

- (a) All based on minimum long term f. o. b. price of £ 150 per ton with export duty being 10% f. o. b. value.
- (b) With increase production of cocoa long term prospects of higher f. o. b. price than £ 150 are slim long term producer price can be assumed to be £ 96 per ton.
- (c) In an oil palm/citrus settlement acreage of citrus = 3,600.
- (d) Usual conversion ratio of pods to dry beans = 10 pods to 1 lb. dry beans.

TABLE VI. PRODUCTION FORECAST: YIELD AND VALUE PER ACRE.

Crop: Citrus (oranges)							
Year from planting	3-4th	5th	6th	7th	8th	9th	10th
Harvest years	1st	2nd	3rd	4th	5th	6th	7th
No. of fruits per tree	400	500	600	700	800	900	1,000
No. of fruits per acre	31,600	39,600	47,500	55,300	63,200	71,100	79,000
Value @ 3d per dozen/acre ₦	32.9	41.1	49.3	57.6	65.8	74.1	82.8
Value from 3,600 acres (₦)	118,440	147,960	177,480	207,360	236,880	266,760	296,280

Notes:

- (a) In an Oil Palm/Citrus Settlement, acreage of citrus = 3,600.
- (b) With the planting of early, mid and late season varieties of Nigerian Sweet Orange, it is hoped to extend the season and market thereby realizing steady price throughout the season.
- (c) Prices quoted are those for peak season production when prices are lowest. The price for off-season crop would be much higher.

(32, p. 28)

TABLE VII. ESTIMATED NET INCOME PER SETTLER'S FAMILY BY TYPE OF SETTLEMENT.

Type	Years														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Oil Palm/Rubber	Pounds Sterling														
8 ac. + 4 ac.				78.8	88.3	112.8	186.3	278.3	370.3	474.3	548.8	622.8	671.8	707.8	736.8
Oil Palm/Cocoa															
5 ac. 8 ac.		71.8	73.9	91.8	115.4	160.1	213.6	277.2	351.9	416.4	460.0	495.1	520.3	533.6	538.0
Oil Palm/Citrus															
2 ac. 5 ac.			104.8	152.8	211.8	293.3	387.8	460.8	541.3	620.3	680.3	741.3	768.3	782.3	796.3
Irrigated Rice	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330

(32, p. 44-50)

difference between the world market price and the price paid to the producer is always retained by the Marketing Board for purposes of keeping the produce price stable.

The estimated combined revenue to the government from the six farms is as set out in the Table VIII.

TABLE VIII. COMBINED REVENUE TO THE GOVERNMENT: PALM PRODUCE, RUBBER AND COCOA.

Total	Cocoa	Rubber	Palm Produce	Years
£ 698, 893. 2	5, 994. 0	-	692, 899. 2	3rd - 4th
£ 139, 166. 0	24, 164. 7	-	115, 001. 3	5th
£ 340, 109. 0	33, 681. 1	53, 226. 6	253, 201. 3	6th
£ 431, 677. 3	47, 570. 9	62, 100. 0	322, 006. 4	7th
£ 495, 048. 7	57, 087. 3	70, 953. 4	368, 008. 0	8th
£ 554, 419. 0	66, 600. 0	79, 839. 9	407, 979. 1	9th
£ 572, 805. 1	76, 112. 7	88, 713. 3	407, 979. 1	10th
£ 581, 678. 5	76, 112. 7	97, 586. 7	407, 979. 1	11th
£ 590, 551. 9	76, 112. 7	106, 460. 1	407, 979. 1	12th
£ 599, 418. 4	76, 112. 7	115, 326. 6	407, 979. 1	13th

"In order to achieve efficiency and implement the scheme expeditiously, it has been found necessary to create a new autonomous section within Agriculture Division charged with the task of developing the new settlements" (32, p. 40).

TABLE IX. TENTATIVE STAFF REQUIREMENTS.

Officer	Estimated pay per annum £	Total £
<u>Administration:</u>		
1 Adviser/Chief Administrative Officer	1,500	1,500
1 Principal Agricultural Officer	1,400	1,500
1 Accountant	1,000	1,000
2 Executive Officers (Accounts)	800	1,600
1 Executive Officer (General duties)	800	800
2 Assistant Chief Clerks	400	800
1 Secretary - Typist	300	300
1 Stenographer	300	300
10 Second and Third Class Clerks	200	2,000
4 Clerical Assistants	100	400
1 Stores Assistant	200	200
3 Messengers	100	300
<u>Inspectorate and General Development</u>		
1 Senior Agricultural Officer	1,200	1,200
1 Agricultural Officer or Sr. Agricultural Superintendent	1,000	1,000
1 or 2 Agricultural Superintendent(s)	700	1,400
2-3 Agricultural Assistants	200	600
5 Recorders	100	500
<u>Buildings and Surveys, etc.</u>		
4 Inspectors of Works (Buildings)	500	2,000
1 Surveyor (Rural Planning)	1,200	1,200
1 Rural Planning Officer (Architect and Town Planner)	1,200	1,200
1 Planning Assistant	300	300
1 Tractor Driver (Pool)	200	200
2 Jeep Drivers	200	400
2 Lorry Drivers	200	400
		21,100

The estimate is absolutely conjectural. Since the writer left

Nigeria for the United States there have been Salary revisions and so he cannot keep track of the salary structure.

The idea behind the calculation of what it may cost to run the Farm Settlements is to stress the fact that there is bound to be an annual overhead administrative cost which ought to be subtracted from whatever accrues to the government by way of revenue from the Farm Settlements.

For instance, for the total revenue (£599,418.4) in the 13th year as shown in Table VIII, page 51 to be realistic some part of the administrative overhead cost (£21,100) depending on how much the government decides to regard as the operation cost and how much as the administrative cost. This is necessary because but for the establishment of the Farm Settlements there would be no Farm Settlement Division as such in the Ministry of Agriculture. However, if even the whole of the cost of £21,100 is subtracted, there is still a sizeable revenue to government from the Farm Settlements.

Possible Impact on Education

The main reason for the low levels of living in Eastern Nigeria is the unfavorable economic and social structure, characterized by the concentration of the population in agriculture at a very low level of productivity. The low level of productivity partially can be traced to farmers' lack of basic education.

It is not only that the educational facilities are so extremely limited, the whole concept of education is not adapted to the tasks involved in the regions development. This education had little relationship to the social and economic conditions of the predominantly agricultural society in which the student would live and work. The number of people receiving agricultural education is pitifully small. Consequently, education, far from providing the economy with better and well-trained manpower at every stage and level, was considered incompatible with any kind of work involving manual labor and especially labor in agriculture.

But we are in a dilemma when we come to make recommendations about agricultural education, because the chief weakness in the present system is not the agricultural schools, but the reluctance of the students to go into them. It is scarcely an exaggeration to say that the effect of education, from primary school to university, is to draw boys away from the farms to the towns and cities. We feel bound to say, therefore, that only a combination of higher salaries and better living conditions, coupled with persistent propaganda about the importance of agriculture to the nation, will ensure the (necessary) annual output (5, p. 255).

This attitude has not yet changed. The accent on quality, and on general and literary, rather than specialized and technical education, is still dominant.

Even the most rudimentary education tended to alienate those receiving it from the rural area in which they have been brought up, the improvement of which ought to be the essential aim of the educational process. The gravity of this situation is accentuated by the

discrepancy which has already been noted between primary education and technical and higher education in general. The low proportion of primary school leavers who can have access to any form of higher education has had the result of creating a mass of barely literate urban unemployment.

The limited impact of education on economic development has been further reduced by the status traditionally attached to a literary type of education. This has involved an undervaluing of technical knowledge and technical work.

Agricultural advance is not possible without inculcating into the younger generation a positive attitude to rural life. This is essentially a problem of intensive education, which enables the individual to work effectively in improving the rural environment and productivity. Education must no longer be regarded mainly as the one way to escape from that environment. A new attitude will be needed. Otherwise a large proportion of the new generation would be condemned to underemployment and low productivity, the disappointment of their ambitions, and hopes.

It is anticipated that the children on the Farm Settlements would be sufficiently exposed favorably to rural life so to be interested in channeling their education toward agriculture. They could form the nucleus of agricultural advance and demonstrate the great advantages of new methods of production. This will again improve productivity.

"No improvement is possible with unimproved people" (10, p. 22).

Aside of the environmental influence of Farm Settlements on the broad educational orientation of the youths, mention should be made of the economic influence.

The settler's income is projected to go up ten times as a result of the removal of the obstacles limiting his efficiency. This enhanced income would make it possible to send his children to high schools without much strain. Good education of youths with rural and agricultural leaning would help to provide the educated personnel much needed in agriculture.

The government provides some sort of free primary education in which the parents contribute a bit to their children's school fees.

Teacher Training Colleges with some grants from the government help to produce some of the teachers that will be needed in the Region.

Possible Impact on Transportation and Communication

At present, Eastern Nigeria's transportation system is quite below what would be expected in a Region with a population of over 12 million. There is no international airport in the whole of the Region. There is only one line of railway running from Port Harcourt terminus through Enugu to the North; there is no direct connection between the Eastern and Midwestern section of the country. The roads

are narrow and poorly surfaced.

As a result of the Farm Settlements, production of the cash crops will increase and since these must be evacuated to the ports for shipment overseas, transportation would be necessary. This necessity may make the government to consider putting in roads. Boki Farm Settlement, for instance, is on the north-eastern part of the Region and it is to produce Oil Palm and Citrus. According to the production forecast (32, p. 24):

TABLE X.

	3-4th	5th	6th	7th	8th	9th	10th	11th
Harvest year	1st	2nd	3rd	4th	5th	6th	7th	8th
Lb. bunches/acre	1,500	2,500	5,500	7,000	8,000	8,950	8,950	8,950
Lb. fruits/acre	900	1,500	3,300	4,200	4,800	5,370	5,370	5,370
Lb. Oil/acre	270	450	990	1,260	1,440	1,611	1,611	1,611
Lb. kernel/acre	225	375	825	1,050	1,200	1,342.5	1,342.5	1,342.5

This heavy production of Palm Oil and Palm kernels would need good, well-surfaced wide roads in order to get the produce to the port at Port Harcourt. As with Palm produce so with Citrus. Citrus has a domestic market especially in the Northern Region. Good roads would be necessary to send them to the railway station for railing to the north. It could be seen that both for the cash and food crops there is the need for good transportation system.

A dealer who sends goods regularly to Port Harcourt would like to be in touch with Port Harcourt Ports Authority. This means there would be the need for telephone service. This need would ramify the whole Region leading to improvement in the communication system: building more post offices and postal agencies, installation of more telephones.

With the passage of time there would be the need to extend the rail to Onitsha from Enugu to serve the commercial interests of Onitsha Province. There would also be the necessity to tap the products from Obudu and consequently a line will run to it from Enugu.

The ports serving the Region would have a heavier load to carry and the result would be the necessity of improvement of the old ones such as Port Harcourt, Calabar, Bonny and Opobo and possibly the development of others.

Improved transportation and communication would increase mobility and help to break sectionalism and tribalism.

Possible Impact on Industry

Agriculture and industry carry each other and when agriculture, the older of the two is efficient, it will be prepared for the strains the other will bring.

When production per man and productivity per acre are increased as a result of efficiency in agriculture, there would be the need for

industries. For instance the large quantity of citrus production would need plants to process the fruits so as to get Orange juice; sufficient Cocoa might call for production of chocolates and candies.

TABLE XI. PRODUCTION FORECAST: COCOA (AMAZON).

Year from planting	3-4th	5th	6th	7th	8th	9th	10th
Harvest year	1st	2nd	3rd	4th	5th	6th	7th
No. of pods/acre	360	2543	3540	5000	6000	7000	8000
Lb. dry beans/acre	63	254	354	500	600	700	800
Lb. dry beans from 5760 acre	362880	1463040	2039040	2880000	3456000	4032000	4608000
Value of £ 96 per ton	15552.0	62701.7	87387.4	123428.6	148114.3	172800.0	197485.7

If rubber is produced in sufficient quantity and quality as projected for the Farm Settlements, industries such as bicycle-tube manufacturing plants, tennis ball manufacturing plants, and gum manufacturing could develop. Since there is population to take the products, such a proposition might be profitable.

For sustained productivity there would be the need for fertilizer plants and finally the heavy industries such as steel would be needed to supply the material for building of tractors and other farm implements.

In terms of increased food output, capital invested in water

TABLE XII. PRODUCTION FORECAST: RUBBER (32, p. 26).

Years from planting	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th
Harvest years	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Lb. D. R. C.	600	700	800	900	1000	1100	1200	1300	1400	1500
Value/acre	£ 45	52.5	£ 60	£67.5	£75	£82.5	£ 90	£ 97.5	£ 105	£ 112.5
Value for 2880 £ acre	129600	152640	172800	195840	216000	239040	259200	282240	302400	325440

supply and irrigation would often yield a greater and quicker return if devoted to fertilizer production.

The question whether the Eastern Nigerians have enough purchasing power for the industrial outputs may be asked at this juncture. The writer is of the opinion that the people have enough purchasing power. This opinion he holds as a result of the influx of Japanese goods into the country and consequently into Eastern Nigeria. Also, the demand for candies and orange juice is so great in the Northern Region that a good internal trade could be established on these between the North and the East. Countries to the North of Nigeria, such as Niger Republic where citrus plants do not grow would also serve as markets for the outputs of agricultural processing plants. Whether this be so or not, it is certain that with the increase in productivity, the economy would boom resulting, subject to good redistribution of income, that the purchasing power of the people would improve.

Possible Impact on Commerce

When production is assured and industries set up, there will be the need to distribute the products. This will give rise to commercial activities.

Eastern Nigerians make good traders and with a stable supply of products, they will adequately supply the needs of Northern Region for such items as Palm Oil, Oranges and Grape fruits and plantains.

With the production of high quality cash crops in sufficient quantity, the overseas demand for tropical products would be met. This will require the services of middlemen to form a good channel between the producers and the consumers.

The need for well-organized bodies for the commercial activities would lead to formation of companies and co-operatives. A strong and well organized commercial business would share in the carrying trade of the Region now monopolized by foreign firms which "have not always given their support to the spread of Nigerian enterprise" (42, p. 26). A good share of the profits of the trade activities would be ploughed back into the business and thus lead to further development and prosperity.

Possible Impact on Income

As was pointed out under the impact of Farm Settlements on

agricultural production, the average income of the settler is projected to increase by ten times - £ 50 to £ 500 - per annum. This is a big boost. When other farmers emulate the method of production by the settlers, their income will be improved even if it does not increase ten times as those of the settlers.

Increased income to individuals means an increased income tax earnings to the government. If the income tax is four percent (hypothetical figure) the difference between what the government would collect would be something like this:

$$\text{Income tax if income is } \text{£ } 50 = \frac{50}{100} \times \frac{4}{1} = \text{£ } 2 \text{ per annum}$$

$$\text{Income tax if income is } \text{£ } 500 = \frac{500}{100} \times \frac{4}{1} = \text{£ } 20 \text{ per annum}$$

From this simple arithmetic, the Government collects £ 18 (£ 20 - £ 2) more per farmer as a result of his increased income resulting from the influence of Farm Settlements. In time, when more farmers could have been more productive, more tax would be collected. At present there is no property tax in Eastern Nigeria.

Increased income would increase the capacity to consume and increased consumption would call for further investments. Increased production and income would mean an increase in the Gross Domestic Product (GNP). Growth in Gross National Product makes for economic growth and prosperity.

Possible Impacts on Unemployment

As the income of the settlers is improved as a result of their efficiency and the consequent increase in production, the urge to leave the farm to look for employment in the urban areas would be reduced. Thus the settlers could be self-employed.

As the settlers increase in efficiency, they would need to buy their own tractors for operations on their farms. This may result in hiring of tractor drivers with consequent reduction of unemployment of tractor drivers.

Investments generated by the activities of the settlements would help to employ some school leavers. Also, school leavers who see a better prospect in the farm business may decide to go into the business and so reduce unemployment.

Because of increased consumption made possible by high income, businesses would be established to provide the needs of the consumers. These businesses would employ some people and thus help to increase production.

Government could afford, as a result of increased revenue from income tax to establish and pay for some social services which would offer employment opportunities.

As was observed under the discussion on education, opportunities for a higher education were enhanced by the increased income. Higher

education would reduce unemployment, most of the unemployed people lack the education and skill to have and hold some jobs.

Possible Impact on Attitude Toward Credit

One of the main obstacles standing between the farmer and high production is lack of capital. In Eastern Nigeria the value structure tends to frown on credit in general and consumption credit in particular. It is still regarded with infamy to loan money and the greatest dis-service a person could do for his heirs is to leave them with a load of debt.

The provision of credit facilities to the settlers on very satisfactory terms has been noticed to help them to improve their production. This will change their attitude toward credit. Henceforth, they will see credit as a necessity in their production set up and not just as something to be dreaded.

When their debt to the government is repaid, they could then apply to the commercial banks for loan. With the experience gathered during what may be called a period of apprenticeship, they could handle loans with greater care and success. This will convince other farmers that credit for production is self-liquidating. When this happens, the general attitude toward credit would change for the better. With the increase in the use of credit, credit-economy would evolve from the present exchange-economy. This would enhance the standard

of living of the whole Region as people could enjoy the satisfaction derived from the ownership of an article while still paying for it.

CONCLUSION

A definitive appraisal of the effectiveness of the Farm Settlements in achieving the objectives which prompted their establishment would not be attempted per se in this conclusion. This is because it will be tantamount to wasted efforts to do so of a project which is still in its formative stages, time will be required for things to work themselves out before a valid assessment could be made.

Perhaps more significant than a definitive conclusion would be to give the views of both those who at the initiation of the scheme cajoled it as a political hoax, and those of the protagonists of the project who see it as a panacea for the social, economic and political ills of the Region.

Those skeptical about the scheme see faults in the following flaws:

The cost they argue is fantastic.

On the whole, these schemes have not had the desired success In Nigeria, the desire for a rural transformation has led to ambitious settlement scheme, in which the farmers receive education, training and material help (in the shape of regular wages for work performed in the initial period) to enable them to raise their output (partly mechanized) toward a goal of £ 500 per annum against a national average of less than £ 50 per farming unit. The cost of these schemes, £3000 (nearly \$9000) per family unit, could no doubt be reduced. But even at a fraction of the cost, such scheme would be self-defeating in a country where the population is growing at the rate of some 800,000 to 1,000,000 per annum, and the per caput income of at most £ 30 per annum. The demonstration effect is also very limited, since no ordinary farmer would have the capital to

emulate the example of the settlers. The experiment is therefore liable to create a new small privileged class, the reverse of what was intended, though it is too early to reach a final conclusion (38, p. 65).

Even within Nigeria, some of the leaders do not seem to favor the expense involved in establishing the Farm Settlements.

The government of Midwestern Nigeria is planning a new model type of Farm Settlements for the Region. Under the scheme, the settlement will be dovetailed with towns and villages so as to ensure economy, maximum utility and efficiency.

Announcing this at Ute-Ogbeje, Ika District on December 14, during his meet-the-people tour of the area, the Midwest Premier, Chief Dennis Osadebey, explained that by siting settlements close to the villages and towns, much money would be saved for equipping the settlements with tractors, and other implements and secondly, the problem of transportation would be little.

He added that the experience of Farm Settlements elsewhere in the Federal Republic was too expensive and impracticable (27, p. 6).

The scheme they say is cash-crop oriented:

The major problem connected with this heavy reliance on exports, especially the export of only one or two commodities, is that the country is particularly susceptible to the transmission of the trade cycle from overseas. A depression abroad reduces the demand for the poor country's exports, and, being primary products, these exports suffer large price and value decline. Conversely, overseas prosperity raises the demand for the poor country's exports, and total export proceeds increase (23, p. 312).

Another favorable point of attack for the critics is about the unavailability of trained personnel to man the projects. Most of them point at some of the agricultural projects that have failed and conclude very sweepingly that lack of trained technicians was responsible.

"On the whole, these schemes have not had the desired success... some were technically successful... But their success was largely dependent on European Supervisors" (38, p. 65).

Some even go so far as to question the use of the data collected from the agricultural research stations for estimating the yields from a peasant farmer's farm.

Some scepticism was expressed concerning the advance of some experimental results, derived on agricultural research stations, to the problems confronting individual farmers. Three- or four-fold increases in yields due to the adoption of certain fixed procedures of soil preparation, seed planting, cultivation and cropping, might well be attainable by skilled researchers, operating with expensive equipment, with freely available labor, in circumstances where everything else is sacrificed in order to perfect the experiment, but the typical peasant farmer enjoys none of these advantages, so that when he comes to apply the new technique one should not be surprised if the resulting increases in yields are only of the order of 30 percent or 40 percent. In this connection there is also the problem of communicating the new technique to the farmer, in the sense that it has to be reduced to a set of simple rules which must not only be unambiguous and readily intelligible to him when taken one by one, but must also hang together in such a way as to convince him of their superiority to the rules he has followed hitherto. There might be much greater difficulty getting field demonstrators capable of doing this than getting the scientists to do the original research (15, p. 87-88).

Even the most ardent protagonist of the scheme will concede to the critics their rights, even if it means, to be wrong. It might therefore be necessary to examine the points raised by the critics.

Is the government justified in spending £1,250,955 on a 12,000-acre Farm Settlement? In the opinion of the writer the answer is yes. This is because based on the data, an acre would cost £105. This

price, by Eastern Nigerian standards, is moderate. Therefore, price-wise, the investment is sound. The question is often raised whether an alternative investment could not have yielded a higher return. It is difficult to say with any degree of authenticity; however, whether that be so or not, it is likely that in the present economic state of Eastern Nigeria, an investment in agriculture is likely to have a much more penetrating influence on the economy as a whole as opposed to investment in any other sector of the economy. Also, it should be remembered that each settler would have to pay three percent interest on whatever amount is spent on his behalf by the government. Definitely the interest rate is low even by Nigerian standards, but the objective is to encourage the settlers rather than to extract maximum amount from them.

The modification envisaged by the government of the Midwest of siting Farm Settlements near towns and villages is not very possible in Eastern section of the country. This is because the Midwesterners live in concentrated towns and the unoccupied area of land on the outskirts of the town could be used as Farm Settlement; Easterners in the majority do not live in concentrated towns as was seen earlier during the discussion on methods of land ownership. It is therefore difficult to get a sizeable area of land near a town.

The question of the cash-crop orientation of the scheme raises quite a problem. There is no doubting the fact that over-reliance on

export of raw materials has long-term vulnerability in the light of the trend of things in the advanced economies:

Industrial production is shifting from 'light' to 'heavy' industries (such as engineering and chemicals), requiring fewer raw materials relative to finished output. 2. As services become increasingly important in the richer countries, their raw-material demand lags behind the rise in their national product. 3. The income elasticity of consumer demand for many agricultural commodities tends to be low. 4. Agricultural protectionism tends to affect adversely the imports of primary products into industrial countries. 5. Substantial economies have been achieved in the industrial uses of natural materials through such developments as electrolytic tinning and systematic recovery and processing of metals. 6. The industrial countries have increasingly tended to displace natural raw materials with synthetics. As a consequence of these forces at work from 1904-13 to 1944-50 the manufacturing production of the United States increased more than three times as fast as the American economy's consumption of raw materials (34, p. 358-359).

Furthermore, there is a widely accepted belief that a tendency toward instability of domestic origin is characteristic of the economies of major industrial countries. And, it is in these countries, and against this basic characteristic, that much of the raw-materials output find its market. As levels of income and output fluctuate in industrial countries, their imports also fluctuate - in fact, their imports have tended to fluctuate even more than have their incomes. As a consequence of these fluctuations in imports, economic fluctuations arising in industrial countries are transmitted to raw-materials producing country, frequently in intensified form - especially if export dependence is particularly great. Serious as this situation can be in

any phase of the business cycle, the recession or depression phase poses the major dilemma. Then there would be a dwindling foreign demand for the export products and very little can be done through price concessions to stimulate foreign sales (since the demand for raw-materials products typically is inelastic i. e. reductions in price do not serve to increase sales volume sufficiently to boost total receipts). Under these conditions, when industrial countries experience a recession or depression, export markets are depressed and in turn bring about adverse effect, to a greater or lesser degree in the form of unemployment or added unemployment, foreign-exchange shortages, and impaired ability to import.

On this account, diversification of products will help to achieve a broader economic base which will serve to insulate the economy against foreign depressions. In fact, the most common rationale for diversification derives from the greater safety which is possible when production is spread over fairly numerous commodities or lines of endeavor. There is always a possibility under diversification that should adverse conditions in production or marketing befall one sector of the economy, they might be softened or counterbalanced by what prevails elsewhere within the economy. Any reduction in the export-import dependence of a country or any hedging of a country against the potential effects of export-import dependence, tends to make its economy less vulnerable or sensitive to external occurrences.

clearly beyond its control.

It has always constituted a mental exercise to the writer to imagine what would be the economic condition of Eastern Nigeria if she fails to have a market for her Palm Oil and Palm Kernels. It would just be dreadful. For, witness the present balance of payments difficulties in Ghana which was accentuated by the low price of cocoa in the world market.

But how could the Region earn the foreign-exchange it needs if the cash crops that could be exported are not grown? It was seen in an earlier discussion that the farmers often wish to grow cash-crops because they are easily marketed. By the same token, the government stresses cash-crops because of the foreign-exchange without which international trade would be very difficult since foreign-exchange is the "pass-word" to international trade.

A shortage of trained personnel is sure to militate against the success of a well-planned scheme. The government is aware of this problem. It plans to contend with it through a crash-program which aims at turning out some 300 Agricultural Assistants every year from the School of Agriculture at Umudike. In addition, some Assistant Agricultural Superintendents are also trained at the School to assume higher responsibilities. For higher studies, scholarships are awarded for studies in universities at home and abroad. The field of study at the universities is determined by the manpower needs of the Region.

The protagonists of the scheme see in it a sure method of raising both the productivity and the standard of living of the people of Eastern Nigeria.

They quote history to support their contention that agrarian revolution must always precede industrial revolution. This pessimism based on history has been discussed earlier.

A new generation of young educated independent farmers will be raised who will respond more readily to new methods of farming and are likely to raise the status of farming in the Region thus placing farmers in their rightful place in the community. These modern farmers will serve as models for others to copy.

The scheme will ultimately result in an increase in the efficiency of production of food and cash crops to meet the needs of the increasing population as well as strengthen the economy of the Region. The scheme will thus result in an increase in the wealth of the Region as well as an improvement in the general standard of living.

Profitable employment will be provided for young school leavers passing out of the Primary and Secondary Modern Schools.

A pattern for a new standard of life will be set in the rural areas (33, p. 5).

The writer has expressed the belief that the Farm Settlements are bound to have some effect for better or for worse on the economy of Eastern Nigeria. The effect may not be as rosy as the protagonists of the scheme would wish nor as gloomy as the critics paint the picture.

The success or failure of the scheme would depend on factors some of which would be outside the influence of the Farm Settlements.

Those factors within the Farm Settlement would include the selection of the settlers and the officers. Selection of settlers should be on the basis of the criteria already discussed under the settlement as such: the officers sent to the scheme should be those of tried honesty and proven technical proficiency coupled with the ability to grapple with human relations problems.

The settlements should be made attractive by the provision of educational opportunities, medical facilities, markets, water and where possible electricity, leisure time and acceptable working conditions.

A sense of security including reasonable assurance of personal safety and stability in essential life conditions including freedom from interruption of the flow of livelihood values.

As of now, the right of the settlers to the land is not definite. Could a settler hand his plot to his descendants? Below is all that the agreement says:

"This AGREEMENT made the _____ day of _____ 19____.
 BETWEEN the Chief Inspector of Agriculture for and on behalf of the Government of Eastern Nigeria (hereinafter called the Government) of the one part and _____ of _____ Council Area in _____ Division of Eastern Nigeria (hereinafter called 'the Settler') of the other part.

WITNESSETH AS FOLLOW:

1. The settler of his own free will agrees to be a farm settler at _____ Farm Settlement and the Government agrees to accept him as such.
2. The settler agrees to be obedient and hardworking under all reasonable conditions and to abide by all the rules and conditions laid down by the Superintending Officer of the Farm Settlement and not to act in a manner likely to disturb the peace and progress of work generally.
3. The settler agrees that if he contravenes the rules and conditions aforementioned or that if his work is found to be unsatisfactory, the government may terminate this agreement forthwith.
4. The Government agrees to lend the settler a sum not exceeding £ 2, 500 in the aggregate which shall comprise all reasonable expenditure incurred by the Government on his behalf at the Farm Settlement, and the settler's share of capital cost of social and community services and equipment to be provided by the Government at the Farm Settlement, and a sum of money not exceeding £ 300 towards the cost of building an approved living house and poultry pen, and a subsistence allowance at the rate of 3/- per day for a period not exceeding two years.
5. The settler agrees pending the completion of a final contract

that all sums advanced or paid out on his behalf under the last preceding paragraph shall be charged against him as a loan which he the settler will repay by installment in due course.

6. This agreement shall be read and construed as one with the final contract mentioned in the last preceding contract which both parties hereby undertake to sign.

IN WITNESS WHEREOF the parties have set their hands the the day and year first above written.

Sign Over
1/- Stamp

IN THE PRESENCE OF

IN THE PRESENCE OF

AGRICULTURAL OFFICER i/c

FARM SETTLEMENT

for: CHIEF INSPECTOR OF AGRICULTURE

(32, p. 64)

A sense of freedom and participation which includes an opportunity for effective participation in decision-making by people whose lives are affected by the decision should be provided. For instance,

the agreement mentioned "if his work is found to be unsatisfactory, the government may terminate this agreement forthwith." How is the unsatisfactory work to be measured? If an agreement is terminated, what happens to the settler's investments? For success of the scheme, such sentences as mentioned above should be spelled out.

A sense of purpose - a feeling that one's life is heading somewhere, confidence in and affirmation of life - should be created in the settlement if it is to succeed.

Among the factors outside the Farm Settlements that are sure to affect their success are political environment in and outside Eastern Nigeria. Here the writer is concerned with the political and commercial changes in Europe, especially the European Common Market. These activities would affect the prices of Palm Oil and Palm Kernels in the world market and consequently the income accruing to the Region in general and the settlers in particular. Also, a change of government may put to power a political party less enthusiastic of the Farm Settlements as the present party. This will remove the government support of the project leading to its collapse.

Also, the hope of effectively using modern technology would require reassessment. Experience shows that modern technology - which is equivalent to technology evolved by and for industrialized countries - may not be suitable in less developed economies. Such equipment are shaped by the underlying assumption that capital is

abundant, that labor is relatively scarce, and that wage rates are correspondingly high. This simply is not the case in Eastern Nigeria; even the Ferguson Tractor is not as efficient as it should be because of the incidence of roots not stumped when trees are cut. There is a limit to technical exchange.

Most of the figures used for production forecast are from the Agricultural Stations. As has been shown earlier, production figures in the Agricultural Stations are improved because of different conditions and methods of production. Therefore, the projected production and income figures of the settlements would need modification. At present, the farmers in Eastern Nigeria keep no records and the settlements might serve as a source of data for future projections.

What chances have the scheme? If all things are equal, the scheme would lead to expansion of export crops; the reduction of production costs; the absorption on the land of additional population; the increase of food supplies for the growing urban areas; increase in agricultural productivity. These will, as has been discussed earlier lead to economic growth.

The conclusion to be drawn from this thesis is that the Farm Settlements should help to accelerate the economic development of Eastern Nigeria. However, the full success of the scheme is not assured. Furthermore, the full benefit depends upon policy of the government in integrating the settlement scheme with other

development programs both within and outside of the agricultural sector.

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