

PN-ABB-398

The Development of Small Farm Agriculture in Liberia

by

G
David Blanchard

Reference Center
Room 1656 NS

Submitted to USAID,
Monrovia, Liberia,
July 31, 1967,
in fulfillment of contract

Table of Contents

	page
I. Introduction.	1
II. Agriculture before 1920	2
III. The New Small Farm Agriculture.	9
IV. External Influences and their Effect on Agriculture	32
V. Summary	39

I. Introduction

There have been a few observers of economic development in the interior of Liberia, and while they may disagree in details, they tend to agree on the stagnant and traditional nature of the tribal cultures, the forceful imposition of western ways on the people of the interior, the disruptive and alien nature of these ways, and that improvements in communication with the coast has mostly opened up avenues for exploiting the tribesman.

There is a need for more information. Many of the reports alluded to above were based on extremely short stays in the interior, and, while much of the information contained in them is relatively accurate, they do not begin to give the whole picture of developments. This paper is a summary of one part of a study of economic development in the Wolota Clan. It deals with the economic changes in small farm agriculture over a period of fifty years beginning with the period prior to penetration by the Liberian government and extending to 1967. The activities in agriculture are discussed in relation to two distinct economic systems: the traditional household economy of pre-pacification days and the emerging cash economy of the last few years.

The author has lived for over two years among the Mano and has been in contact with development in Wolota for five years; initially as the principal and founder of the first public elementary school there and later in 1966-67 as a researcher.

Wolota Clan was chosen for detailed study, not because it was typical of the interior of Liberia, but, on the contrary, because it was unusual. The economic development there has been very recent, rapid, and extensive. This gave the author a chance to observe change as it happened and to analyse its trends and patterns. While the area's development was unusual, its patterns of behavior were undoubtedly somewhat typical of other parts of Liberia. The Mano and

Kpelle tribes settled there over a hundred and fifty years ago, and there is little reason to suspect that they were essentially different from their relatives elsewhere. As for the new patterns, there seems to be a great deal of similarity among the participants in the cash economy. They are a very mobile group of mixed tribal origin and are widely spread over the interior.

The Wolota Clan is located thirty miles from Gbarnga and at the extreme east corner of Bong County. It is crossed by the LAMCO railroad and the old public road from Gbarnga to Tapita and is the termination point for the proposed Tappi-Yila motor road.

The research techniques used have been mostly participating observation and unstandardized interviewing. Both the historical and typological methodologies have been employed. Very little attention has been given to the collecting of statistics, not just because of the extreme difficulties in doing so, but because they would be meaningless for analysing the behavior of people who are mostly unconcerned with quantifying.

II. Agriculture Before 1920

The Role of Agriculture in the Mano Economic System

Slash and burn agriculture was the core of Mano economic life. Perhaps half of their material consumption came from horticultural production. It was this production which enabled them to live in the Liberian high forest with relatively high population densities. Rice, the basic food, provided around one fourth of a family's subsistence, and vegetables and cotton provided approximately another fourth. The rest of their subsistence was gathered or hunted in the forest.

The economy itself was part of the whole social structure and could not be separated from it. The Mano lived in autonomous town clusters which were often at war with each other. Each town was divided according to sibs, which were

groups of people who traced their lineage through the male line back to a common ancestor or totem. Running across the sib relationships was the household, which was the basic production and farming unit. The household frequently contained a number of families, all of which owed their allegiance to the head of the household and his head wife.

The Mano had a dual political structure. Gerontocracy, or rule by elders, was found universally, and it dealt with most of the daily political, judicial, legislative, and administrative issues. Superseding this structure was that of the patrimonial leader, or warrior-chief, who had appropriated for himself personal powers which exceeded those of the elders. The town members were considered his subjects, and he ruled them with the aid of a personal staff which he supported himself. His main function was to protect the town by leading its warriors and bringing honor and respect from others, so that the chances of attack were lessened. In return for this service the towns people honored him and granted him a certain amount of freedom of action to do as he pleased. However, both the elders and the warrior-chiefs were limited by tradition to certain spheres of action.

There were no court systems or codified laws. Anyone could judge a dispute, but serious matters were handled by the elders, warrior-chief, or secret societies, in that ascending order of importance. As there were very few laws or principles, disputes were not settled according to a codified set of laws, but according to what solution would satisfy the contestants and help to keep the community together.

Motivations and Goals of Farmers

Each adult Mano male wanted, foremost, to be a good farmer who could provide for his family, for the survival of the individual depended on the maintenance of the family and household. Secondly, the farmer sought respect,

which accrued to those who demonstrated their ability to be good farmers and their willingness to help others. Thus, the farmer satisfied his material desires through household agricultural production and his personal subjective wants through a demonstration of his skill and a distribution of his material goods. There was, therefore, little incentive for the farmer to accumulate personal wealth.

Technology in Growing Crops and Production Methods

Horticultural technology was alien to the rain forest environment. To succeed in obtaining a crop at all required good timing in a very irregular climate. Also it required a fight against the rains which, while making the growing of upland rice possible, hampered the clearing of land, washed away the nutrients in the soil, and threatened to spoil the stored grain. Plants, native to jungle conditions, thrived and overpowered the foreign crops. Birds and animals, which had a hard time finding food in the high forest, attacked the ripening grain.

The farming cycle began in January, the middle of the dry season, with the clearing of new land. The cut foliage and trees were allowed to dry as much as possible before being burned. The ashes added some potash to the soil. Scratching or light hoeing mixed the ashes with the topsoil, cut off the weeds at the roots, and covered the rice seed with a thin layer of soil. This began in late May with the coming of the rains and proceeded until early August. Harvesting started in October and extended until December.

Food storage and processing was very time consuming. A new storage shelter had to be built every year. The cleaning of rice required drying in the sun and beating in a mortar with a pestle three times before it could be hand sorted for rocks and bad grain, then cooked. Almost everything was done by hand with usually only a cutlass or stick for tools.

Property Structure of Agriculture

Public property or property held in common was controlled by the elders. This mostly included untilled land, paths, and water sites. Each cluster of towns had its boundaries, and each town within the cluster had its sub-part of the land. Town land was subdivided by sib groups with each sib having ample land to supply its members needs.

Every head wife had a right to have a rice farm cleared for her. The husband, obliged to fulfill this right, obtained the right to use some part of his sib's land. The harvested crop was the head wife's personal property, but all other members of the household had a claim on the produce amounting to their subsistence.

While the members of the household only had a claim to a share of the product of the household, the individual had a right to use for himself what he obtained from his individual labor from leisure hours.

Division of Labor in Agriculture

There were two ways by which labor was divided: one by sex and the other by age. Some jobs were not divided at all, such as scratching, planting and harvesting rice. But others, such as house building, cutting trees and building fences around the farm, were men's jobs. Processing and preparing food, gathering fire wood, and carrying water were tasks for women. (Male children and young men were classified as women.)

Besides the division of labor by sex, there was the 'small boy system', whereby the smallest boy present, able to do the work, got the job. This principle regulated the allocation of tasks for both men and women throughout production. The heaviest and most tedious work was shifted to the youngest member able to accomplish the task, with due regard being given to the health of the person. Jobs were ranked in status according to the youngest age group which was able to do them.

The culmination of the two ways of dividing labor resulted in the shifting of the heaviest burdens for sustaining the household on the male children and young married men and women. This left the elders free to administer and to take leadership in social life.

Production Organizations in Agriculture

The most important institutions of production were the households, and these were of two types. The most common of these was the patriarchal household made up of only relatives. The patriarch and his head wife controlled the household and represented it in society. Members, other than children, were free to leave to establish their own household if they wished. The patrimonial household was also controlled by the leader and his head wife, but there were members of the household who were not relatives but slaves and pawns. They did not have the right of their freedom and were compelled to do the bidding of their master. These patrimonial households were always headed by a warrior-chief, and he used his household as an administrative staff to control his subjects.

Regardless of structure, the household performed basically the same production tasks. Each household had its own rice and vegetable farms which produced all of the basic horticultural products which the household consumed. Processing of the food, whether grown or gathered, was done by households.

Even though farming was a household affair, the members would frequently join with other households to form labor cooperatives, which are referred to in English by the Kpelle word kuu. The members of a kuu joined together for the purpose of working in rotation on the farms of members, because they believed that they worked harder and with more enjoyment when in a group. Kuus could be of men, women, or mixed. A household would contribute as many members as it was able. The number of days a kuu would work for each member was determined

by a vote at the organizational meeting. Usually the kuu worked two full days for every member. Thus a household would receive two kuu days for every worker it contributed.

Kuus were formed newly each season and were involved in such work as clearing forests, scratching and planting and harvesting. Only work which had a constant output could be organized into kuus. This ruled out all forms of production where an element of chance was involved, such as hunting or fishing.

There was another type of kuu for the pooling of rice for special occasions, and there were informal work groups for house construction.

Order of Consumption

There were two orders of consumption among the Mar*. There was the order between households and the order within each household. Of the order among households, the household of the patrimonial warrior-chief was the most important. In this household there was not only consumption for subsistence but also an accumulation of wealth. Surplus production was transformed into the wealth of wives, cattle, and rice. Cattle were not maintained for purposes of exchange but for their own value as a source of prestige and a measure of wealth. Wives, too, were a measure of wealth, because they were the key to high levels of production. They represented not only their own labor services but also those of their children.

Rice was the measure of a household's productivity and its standard of living. Rice was the food of value, and no other edible measured up to it or could replace it. In spite of the overwhelming emphasis on this grain, rice was in short supply. Often, by the time the fields were ready to plant, the seed rice had already been eaten and seed had to be borrowed from the rich.

Fields, by present Wolota standards, were small. Why the cycle of small farms and small harvests was continued when the crop was of such value and

when land was plentiful (and when present day households have shown that greater effort could have produced twice as much food) is a mystery. The only answer available is that the size of the fields was based on custom, as was the amount of labor a person was willing to exert. Hunger was common during the rainy season, and some of the old and infirmed or very poor starved to death, while others died of diseases contracted as a result of malnutrition.

Households ranged from the very wealthy to the destitute, but the difference in standard of living actually depended on the amount of rice a family produced. The gap between the rich and the poor was little more than the quantity of food they had to eat and the amount of hard labor they had to exert; yet that difference could be the difference of life and death.

The order of consumption within the household was also stratified. The head man and his head wife had the highest standard of living. The other wives took their part of subsistence next and shared it with their children. In a patrimonial household, the pawns and slaves came last. No one was neglected to the point of starvation unless there was no food at all.

Exchange Among the Mano

The Mano had two common types of exchange. First, there was reciprocity, which was the passage of goods and services from one to another. It was understood, though not expressed, by both parties that there would be a return compensation in the future. The other form of exchange was the barter-contract, in which the buyer contracted with the seller or producer to supply a specified item or advantage for a specific compensation at a future date. Both parties reckoned value in kind, and they agreed to the exchange when the reciprocal compensation was mutually agreeable. These contracts were always initiated by the buyer and almost always witnessed.

Reciprocity was the principle of distribution within the family and with close relatives and friends. In addition, it was the foundation of the small boy system, for the young had to return the services their elders had performed for them.

Most exchanges between households were by barter-contract. These typically were for craft products and not agricultural goods (except in the case of seed rice, for repayment was a condition of the loan).

The Training of Farmers

Training of the youth in agricultural methods was undertaken exclusively within the family. The father trained the sons and the wife the daughters. Other writers have stated that such training took place in the secret society's bush school, but this was not the case for the Mano in Wolota. Children were allowed a certain measure of freedom to experiment in agricultural techniques, but the technology had perhaps reached, under the prevailing conditions, its highest efficiency.

III. The New Small Farm Agriculture

Historical Changes

Pacification of Wolota area by the Liberian Frontier Force around 1923 brought with it not only the elimination of inter-town wars in Wolota, but also opened the way to further change. Fortifications fell into ruins, the warrior class disappeared and the patrimonial rulers died off. The members of the Wolota Clan were now free to move about the country. Towns were opened to strangers since there were no longer military secrets to be kept. The pacification had disrupted large masses of population. Whole towns had been wiped out. Many had fled to other parts of Liberia to avoid the conflict and others were refugees in Wolota.

The disruption of peoples and the military actions brought an agricultural slump. Farms could not be worked during the conflagration, and afterwards many men had either died or had run away. The refugees were a burden rather than a help. Food was in short supply for several years and production only gradually returned to pre-war levels. At first the population relied almost entirely on gathering in order to survive.

With the opening up of the towns and the increased freedom of movement there was an increase in trade. Mandingoes for the first time took up residence and settled down to continuous fixed location trade rather than peddling. The Mano increased their own trade with the coast because there was a demand there for rice (thus the first cash crop). British coins began to circulate, thus introducing the use of money.

Probably the most significant innovation after pacification was the introduction of the national government. It was manifested in a pyramidal political, administrative, judicial and legislative structure with the elected offices of quarter, town, and clan chief. The paramount chief and district Commissioner were appointed. Jurisdictional boundaries did not take their present shape until the early fifties, but the structure came almost immediately after the end of hostilities. This change brought with it the hut tax, collections for the maintenance of clan and paramount chiefs, and a court system in which disagreements were settled according to national law (inasmuch as it was known) and political power. The most important feature of this law was that it made suing possible. This allowed for somewhat more security when dealing with strangers as the old social structure lost its ability to provide restraints on individual actions. The new government also introduced 'porter work' (which is forced labor, with or without pay, for government projects) as a form of taxation.

In 1930, the second major change swept through Wolota. Under pressure from the League of Nations, Liberia eliminated domestic slavery, slave trade, pawning and shipments of forced labor to Fernando Po. While this new situation brought a great deal of social adjustment to the slave-keeping tribes along the coast, the Mano were very little affected. Their few slaves were freed and the slave traffic stopped, but the major result was the increased freedom of non-slave persons. The fear of enslavement was lifted and no longer was travel limited to the person who was strong enough to protect himself. Limitations on movement into the interior by coastal people were also lifted for now their protection could be better guaranteed. The result was greater travel and an influx of educated Liberians into the interior.

The second cash crop, sugar cane, consumed as fermented and distilled cane juice, began to be grown and processed. A few Mano had learned of the drink and how to produce it in their wanderings to the coast, but production was not possible until the mill and still were available up country. The educated Liberians brought this paraphernalia with them. Cane juice was produced in Wolota more or less continually from 1931 onward.

Trade continued to expand. The educated strangers provided new outlets for local agricultural products such as cane juice and rice. In addition, the government encouraged markets, and every paramount chief was required to have a weekly market in his town. Participation was sometimes compulsory if interest lagged.

The 'Hitler War' brought some regression in the interior, for during part of the war the road to the coast was closed. Since the war the Wolota people have seen profound social changes and economic expansion. The most significant change in the early part of this period was the completion of the motor road from Monrovia. At its closest point, Palala, this road was only twelve miles from the Wolota border. A person could walk in one day from any part of the

clan to the road. The nearness of a market at which to sell rice and to buy imported goods stimulated a marked increase in agricultural production.

Within a few years, not only were a few farmers enjoying a greatly increased standard of living, but starvation for the first time was eliminated. By the end of the fifties rubber, coffee, and cacao were being planted.

LAMCO's plans for building a railroad from Mount Nimba to Buchanan included the construction of access roads beside the right-of-way through Wolota and a spur from Wolota to Palala. Thus in 1961, Wolota not only had roads to both Buchanan and Monrovia but also a direct link with Ganta. A passable motor tract was cut through to Yila, so the clan was crisscrossed with almost twenty miles of road. A rock quarry was installed to supply the railroad. One of the communication towers for railroad traffic control was installed in addition to the railroad tract itself. Raymond Construction Camp II and a LAMCO administration camp were also built. (Most of these facilities, except the tower and right of way, have been or will soon be phased out.) All of this activity opened up land to easy access which brought an influx of outsiders. Also, local people who had moved out to be closer to the old highway returned to farm.

Schools and health services were introduced. The Mid-Liberia Baptist Mission opened a station at Yila in 1946. The mission operated a private school, a clinic, a leprosy colony and a Bible School for training evangelists. The elementary school in Gbarnga took one son of each town chief, and eventually, others who wanted to attend.

The first public school was opened in 1962 by an International Voluntary Services volunteer (the author) and his post has subsequently been filled by Peace Corps Volunteers. The second public school opened two years later. With the addition of PCV's and LAMCO personnel, a small European community was

established.

The influx of strangers included Lebanese who established stores at Zowinta and Yila (later abandoned) and Mandingoes who increased in number and expanded their shops. Local entrepreneurs opened shops of their own and educated Liberians started cafes.

Wage labor became more plentiful as jobs became available. Mandingoes switched from marketing to working for cash. The increase in wage labor expanded the demand for agricultural products and opened up the possibilities of local markets for rice, cane juice, vegetables and fruit.

Two new agricultural technologies have come to the area since the access road was built. Vegetable farming was first introduced in 1902 and has now begun to be adopted as a full time occupation. Swamp rice farming on a very small scale had its first harvest in 1966-67, and a similar technology for vegetable growing in the dry season is being strongly considered for 1967-68.

In summary, we see that in the forty-four years between the pacification and the present there have been a long series of new ideas, people, opportunities and structures introduced into Wolota. The old economic system was destroyed and a new economic base and structure were introduced. Large segments of the old technology and social structure remain, at least in modified form, but as a unit it has been replaced. The old system is thus dying out and a new system has already taken its place but is not yet in universal use.

The presentation of this new economic system is not the function of this report and it will only be summarized. However, it is important to remember that a new social and economic structure does exist, and it is from within this new system that the new elements of small farm agriculture are operating.

Features of the New Economic System

The new economic system continues to be influenced by the basic motivations of the old social system but with a few alterations and additions. The goal of obtaining respect remains but the respect must now come from the 'civilized' or kuii (which is the standard Liberian term for Westernized people), for they are the ones in a position of power. Although it is still necessary to demonstrate one's generosity in order to acquire respect, in addition it is now necessary to acquire personal wealth, an addition to the old system in which the acquisition of wealth was not a primary motivation. Further, the old goal of maintaining one's family has been broadened to encompass the desire for a continually increasing standard of living. The call by the national government for an ever increasing agricultural output has been internalized (primarily out of respect for the government and because of the desire to expand one's income) and has become a goal of the farmer in the new system.

The most striking economic feature of the new system is money. Market exchanges utilizing cash as a medium of exchange and as a means of payment have replaced, to a great extent, reciprocity exchange outside the family. All basic commodities, including food, are bought on the market. Selling activities have been added to exchanges which formerly did not allow a person to seek buyers. Production in the cash economy is for the market, either by selling labor services or by growing cash crops. Market production necessitates a whole new roster of skills and technology. Corresponding to the new techniques in agriculture is a change in the property structure of land with the modification of the sib distribution system through the increased use of private land holdings. Cash is always in short supply. The need for cash to meet emergencies continues to force people into increased activities that will produce money. Interest

rates on cash are very high (50% per month).

The features of a Western style education are an integral part of the new economy. A knowledge of English is essential for communication since the new system is intertribal. In addition, the skills of reading and writing are helpful and they are mandatory for full participation in the new culture. Also, one needs to know something about the European world - its values and ways of acting - as well as something about the legal structure of Liberia and one's legal rights and duties. This knowledge is necessary in order to understand the behavior of other kuii and to obtain their respect.

The possession of some understanding of Western civilization and spoken English is an aspect of a style of life which is an integral part of the new economy. Failure to strive to obtain or maintain this style results in a loss of respect which can extend to the point of losing one's position as 'civilized', no matter what one's qualifications may be. The most obvious feature of the style of life is the material standard of living. Consumption takes a very definite pattern. A kuii must have a square house with a zinc roof, cement floor, and plastered walls. It must be furnished with chairs and beds with mattresses. The person himself must be clean and his clothes clean and pressed. An income of from thirty dollars a month upward is needed to obtain and maintain this standard. There are no upper limits to the style of life, but the important thing is to be always improving one's living conditions above the above mentioned minimum.

Other features of the new style of life are a change in temperament, religion and family life. A belligerent attitude towards those who irritate is replaced by an easy going tolerant stance which tries to minimize palaver and hostilities. Friendship based on mutual respect replaces friendship centered

around reciprocal exchange. Love and mutual affection replaces the economic partnership as a basis for marriage. Consequently, women have gained more freedom to improve their standard of living independently of their husbands. The household has more sharing of jobs than division of labor, with the man participating more in the household tasks of caring for children and preparing of food and the women earning money on their own. In the area of religion, there is at least an abandonment of the belief in the former articles of faith, even though lip service is often paid to maintain community harmony and personal safety. Frequently, a foreign religion, either Islam or Christianity, is adopted.

The political structure has almost completely changed in the new social structure. The patrimonial warrior-chief and ruling elders are replaced by a bureaucratic hierarchy of quarter, town, clan and paramount chief, superintendent, and president. Elders become advisors and are officially attached to one of the chiefs. Politics and administration begin to be separated. The three lower chiefs depend for their election and survival on the populace they serve. There is a new concept of law in which disputes are settled according to a code or principles and precedents rather than by contextual expediency, arbitration and traditional patterns of accepted behavior. Connected with the new law and court system is a body whose special function is to implement the law and execute punishments in accordance with the law.

No one in Wolota operates wholly within one or the other of the economic systems. Individuals shift back and forth from one to the other several times a day. Generally they have no trouble distinguishing in which of the systems they are functioning at any moment. The main confusion arises when people are interacting but each is unwittingly in a different system. The other time problems arise is when a person is not completely familiar with the new structure and its way of life and yet tries to be a member of the kuii.

Contribution of Agriculture to the Cash Economy

Agricultural production is the chief means by which people enter the cash economy. A very rough estimate is that approximately one-third to one-half of the total rice production in Wolota is sold. Perhaps half of that sold is consumed locally by the Kuui who do not grow rice, or by rice farmers who do not grow enough. Upland rice farming is the least profitable of the cash crops. If a man pays wages or hires a Kuu to clear, plant and harvest a crop for him, his return from the sale of the crop will be about equal to the cost of the labor input (depending on the weather and soil conditions). For this reason, farmers, when they are able, switch over to other cash crops and use the proceeds to buy rice. (A cash crop is used here to refer to any agricultural output which is sold for money.)

The most profitable cash crops in Wolota are vegetables and fruits. The major problems confronted by the farmer in producing these crops involve obtaining seed and having readily accessible markets for their output, but the actual farming is relatively light work. Growing sugar cane for the production of cane juice is the second most profitable farming activity. The central problem with this activity is that of obtaining enough labor and having access to a cane mill when the cane is ready to be cut. Coffee and cocoa are next in profitability but, though they involve no major marketing or capital problems, they do involve more labor. Rubber, at the moment, is not worth tapping as the market price is low and tappers are hard to find and relatively expensive. Kola nuts were once profitable to plant and pick, but now that the border to Guinea is closed and the major market cut off there is little demand for the crop at any price. Swamp rice appears to be an important crop for the future. Small swamps are readily available and little labor is involved per pound of output as compared to upland rice. At present swamp rice appears to be as

profitable as garden vegetables, but since there were only two swamp farms in the Wolota area last year there is not enough data from which to draw any firm conclusions.

While rice, coffee and cacao can always be sold to local Lebanese shopkeepers and cane juice can be marketed to local retailers or the Lebanese who act as wholesalers, there is no established structure for selling fruits and vegetables. Kola nut farmers have to seek out Mandingo traders who are willing to buy the nuts when they are picked. Thus, marketing presents one of the most serious problems for the farmers producing these crops.

In former times, being a good rice farmer was one of the major ways to gain esteem from others. Among the kuii this is no longer true. The size of one's income, his generosity, and his concern for his fellows far outweigh the importance of his rice farm. In fact, some of the kuii have adopted the attitude that rice should be grown only for the food subsistence of the family and not as a cash crop. Rice is a cash crop out of necessity, not choice, for most farmers. Nevertheless, total rice output per household seems to still be increasing.

One of the important factors in the growth of the industrial countries has been the expropriation of labor from the means of production. Ownership of tools and land came into the hands of management and workers were forced to sell their labor and accept the discipline of the supervisors. The availability of free land and the possibility of wage labor to return to farming has limited Liberia's ability to recruit, train and retain industrial labor. Wages of even fifty cents a day bring an income perhaps even double that which can be obtained from rice farming, but the regimentation and the temptations to consume the excess in gay living makes living by wage labor seem excessively strenuous and frivolous to many. Eventually some return to

farming for themselves. (Wage labor in Liberia is often 'target labor', which means that workers enter the labor market to obtain a specific sum of money for a special need and then return to the farm.)

New Technology in Growing Crops and Production Methods

There is no point in discussing here the exact technology employed in cash crops. It should be sufficient to mention that nowhere in Wolota in growing any of the cash crops is the technology employed anywhere near as sophisticated as that available from the Government farm at Suakoko. The farming techniques of the traditional farmers are essentially at variance with the natural conditions. Rice and vegetables are produced by destroying the environment, and one or two crops are all they can wrench from the land before it has to be given back to nature to recover. Other cash crops have been somewhat more successful, mainly because they are a little less harsh on the natural conditions. The move has thus been to find crops more in tune with the environment. As yet, there has been very little effort to use scientific techniques which would alter the environment, such as the use of fertilizer, insecticides, and irrigation systems. There is much room for improvement in this area.

Most of the new cash crops have been introduced by men returning from working on plantations and farms where they were grown. Experience was gained informally by farmers while working, by observing and by questioning, as well as through training in the specific task they were to do. Often cuttings or seeds were brought back by the farmers. Others, especially vegetable farmers, learned in a more structured way. They were able to get an experienced farmer to teach them the new technology, usually in exchange for labor services. A third source of information was from friends or kuii who served more or less as extension agents. The information was free. The kuii were frequently Missionaries and Peace Corps Volunteers who had managed to pick up a few scattered bits of information. A number of schools in the interior, both

public and private, have agricultural programs, and some of the Wolota farmers learned cash cropping from them. Notably absent from this list is government extension agents. In this area, at least, the agents in Gbarnga have never paid a visit either to the schools or to local farmers.

Thus, the distribution of modern technology has proceeded on an informal basis and this basis has been inadequate for implementing such a complicated technology. The failure to adopt scientific technology is not, however, completely attributable to a lack of information. The planting of cash crops according to the old technology is relatively riskless. The implementation of modern technology usually requires both additional labor and risk, and the margin of subsistence is too narrow to allow much risk taking. Also, it is considerably easier to visualize an increase in production from planting a new tree than to conceive of increasing output by planting fewer trees per acre, trimming branches, weeding, spraying or scattering tiny bits of medicine around.

Estimation of Production Quantities and Standard of Living

Estimating the standards of living in a monetized economy is a difficult task. In an economy which is only partially monetized it is risky almost to the point of being ridiculous, and for predicting behavior, practically useless. However, since this author is somewhat closer to the scene than others who have tried, perhaps his guess will be of some value. By a process of estimating production for an average family of about five and imputing a money value for this production, I arrive at a figure of between one hundred and two hundred dollars as the value of a year's production per family. Estimates of consumption fall within the same range. Between twenty-five and sixty dollars of this income may be in the form of cash acquired through the sale of cash crops, and the remainder consists largely of subsistence agricultural output.

The man who works for wages may earn no more than this twenty-five-sixty dollar amount but his income is often supplemented by the earnings of his wife, either wage earnings or food produced on the land of the household. In addition, if he can manage to get home to cultivate his land or if he hires someone to clear a field for his family, his rice production may be almost as high as if he had stayed at home.

A kuii man may easily earn over four hundred dollars a year. Even a wage earner who does not earn this amount often supplements his income by farming on the side. If he could overcome his major problems, a cash crop farmer could also earn this amount per year, but in fact one is rarely able to earn so much solely from farming. There are no kuii in Wolota who earn their income solely from farming.

A money estimate of the standard of living during the period before pacification can only be obtained by computing a current value for an estimate of the production level of that time. Such a figure has no meaning, other than giving a quantitative handle with which to talk about the growth in the standard of living from that time to now.

Rice was the major crop then as it is now. A farming family today can produce between ten and twenty hundred pounds of rice a year. Approximately half is sold and the rest is usually sufficient to get them through most of the rest of the year. Production of this staple before 1920 was approximately one third of the amount presently produced. There was none sold and that which was grown was by no means sufficient to sustain the family for the whole year. Starvation in the rainy season was common and hunger for those few months, the rule. A reasonable estimate, therefore, is that consumption or production of rice was only approximately two-thirds of present levels

of unsold rice, and there was no surplus available for sale. This would put rice production at a value of between twenty and thirty dollars. If we impute the value of vegetables grown and meat hunted, we get a maximum income figure of just over one hundred dollars, or about half of the present maximum income figure for rice farmers. If these figures are anywhere near correct, then the standard of living has about doubled since the period of pacification. This estimate coincides with the current belief that the average man is a good deal better off today than even the rich were forty years ago.

Changes in the Division of Labor in Agriculture

The greatest change in the division of labor in agriculture has been the development of wage labor. Individuals hire themselves out to do farm work usually on a part-time basis. Typically these are Mandingoes who do not have their own farms, but even Liberians are now entering this market. This type of labor is not very productive, as there is little motivation to work hard. However, such labor leaves the farmer free to specialize in his cash crop or hull job in which he can earn more money.

The other major change in the division of labor is, in one sense, a breakdown in specialization, for men and women now do more of each other's tasks that formerly were kept divided. Women now clear the forest to make farm and men grow vegetables. The division of labor is now based on the property structure rather than on sex. Each person works his farm, regardless of sex, and personally enjoys the proceeds of that farm. Men have tended to dominate the new cash crops for they have had more opportunity to learn the technology, but women are by no means excluded from working such crops.

New Organizations Influencing Agriculture

There have been some alterations in the production organizations and the addition of several new institutions which have influenced agricultural production.

The rice kuu of former times has been transformed into a money kuu (sometimes called a susu). Each member periodically puts an equal amount of cash into the pot and one member takes all. The pot rotates in turn among the members. The funds are occasionally used for agricultural purposes such as paying for a labor kuu to work on one's farm or for buying land. This form of savings is relatively riskless, but there are no interest payments.

A new form of savings is the cooperative savings and loan association called a "money company". (There is an association of the same name among the Mandingoes which is a savings, insurance and investment organization). Members pledge themselves to pay the weekly maintenance of a certain number of shares. All shares are of equal value. Each company sets the value of its shares at the outset but the value can be changed anytime the members agree to it. The funds are collected by the president, kept by the treasurer and accounted for by the secretary. The responsibility for loaning the funds rests with the president. Rates of interest vary according to the laws of the company, but typically members pay twenty-five percent interest per month and non-members pay fifty percent interest each month. Funds are generally used to meet emergencies and unexpected expenditures. Even the local government sometimes borrows from the companies, but usually at a special low interest rate, for the members know that the capital to repay the loan will be raised through taxation. The members will agree on a date to dissolve the company. All loans will be called in and the funds divided according to shares. A small amount, perhaps one percent of the total capital,

will go to each of the officers as payment for services rendered. In a well run company the members will receive per year about double the amount they invested. The money involved is relatively small. Shares range from five to fifty cents and the average member will have only a few shares. These companies are typically formed not by kuii but by the tribal people as a source from which to obtain funds to be used to meet emergencies, e.g., taxes, fines, etc. Seldom is money borrowed for agricultural investment purposes, primarily because of prohibitively high interest rates, although occasionally it is used to purchase additional seed. If a kuii joins a money company, it is usually for the purpose of taking advantage of the high investment return.

It is estimated that roughly half of the farmers in Wolota belong to a money company. A good deal of effort by the individual members goes into finding something to sell in order to keep up payments. The risk involved in a money company is considerably greater than in a money kuu. The main problem with the company is that of management. Selecting creditors who can be trusted to pay back a loan is very difficult and depends largely on the skill and prestige of the president. The keeping of accounts on a large sum of money in a company with many members and borrowers is exceedingly difficult, especially if the secretary is neither literate nor trained in the skills of working with abstract numbers and arithmetical manipulation and has to figure with the aid of stones. A few towns in Wolota have given up trying to form companies because of the management problem. Other companies have been successful, especially those with a kuii for secretary, for he is accustomed to handling large sums, is usually more honest, and can calculate and keep records. The year-end distribution is used in the same way as the pot from the money kuu. Very little of the funds is directly used for investment purposes.

(The Mandingo investment company in Wolota plans to loan money for investment purposes, such as for hiring laborers and buying land or goods for marketing. The interest rate will be lower than that for the other type of company and the company will not be dissolved. The members have the privilege of drawing upon the company in times of emergency. To date the company has collected nine hundred dollars but it is not yet in operation.)

The changes in the structure of the labor kuu or cooperative have been far too extensive to present here. It has been altered in structure to fit its new environment and to take advantage of new opportunities. The co-op now hires itself out to those who need farm workers and the proceeds are divided among the members. Also, a member may sell his share of the cooperatives' services to another person and keep the money for himself, for the kuu is indifferent as to where it works. Beginning with Operation Production, labor co-ops have been registered with the government and some have been formed at the request of the government.

The concept of cooperatives is being broadened to include not only labor and money pooling, but also investment and marketing. A cooperative of vegetable growers has just been formed in Wolota and the possibility of an investment cooperative among sugar cane growers is being discussed. At present these developments have little meaning, except to demonstrate that the concept is capable of expansion to meet pressing agricultural problems.

Over the past several years a new type of farming organization has been introduced into Wolota. It is cash crop enterprise headed by a landowner-manager. His staff consists of a foreman, who oversees the wage-earning labor. This labor is expropriated from the means of production, and it is regimented to work a stipulated number of hours a day at designated tasks. The worker must provide his own subsistence, but he may be allowed to use the owner's

land for growing rice. The laborers are exempt from porter work and enjoy the tax exemptions awarded to the kuii. All the farms of high government officials and the more affluent kuii are run with this type of structure.

Some of the farms of less wealthy kuii employ a mixed structure of the patriarchal household and the farm enterprise. There are no foremen and the management and administration are headed by the owner-patriarch and his head wife. Labor is mostly supplied by relatives who are part of the household, but wage labor is sometimes hired either seasonally or for specific jobs. The number of persons who are granted kuii status depends on the degree of improvement of cash crops and on the political and economic strength of the owner.

Alterations in the Property Structure

The major change in the property system has been in the control of land. After pacification the government took over legal ownership of land but left the distribution of land to the town elders. While some of the land is still distributed according to the traditional systems, the better share of it is now divided into private plots and is secured by tribal certificates. The steps through which a farmer must go in order to acquire a piece of land are relatively easy. He must first obtain permission from the elders for a certain amount of frontage along one of the land boundaries of a town's quarter. For this frontage he then pays for and gets a tribal certificate. This frontage is secure and no one can take it from the owner. In theory, his land extends back from the border until it meets another boundary. However, because of the irregular shape of the border lines, there may be considerable overlapping of perpendiculars drawn back from the frontage lines. In order to have one's perpendicular become one's side boundaries it is necessary to get the land surveyed and paid for ahead of one's neighbor, but this requires a large sum of money.

The important change in the property structure of land comes with the obtaining of the tribal certificate. At that point the farmer is no longer dependent on the elders for land, and with some measure of security he can begin to plan and plant for the future. The farmer can build a permanent residence on the land and can plant cash crops. This activity will not only bring him an income in the future but will also help him to get his land classified as 'improved', a classification which frees the residents on that land from porter work and from some taxes.

The property structure of the farm itself has changed. When only the old system of the household farm existed, there were no plots for individual members of households. Individual plots belonging to the men who planted them started in Wolota with cash cropping. Under the old social system any reward gained by the selling of personally manufactured objects belonged to the maker and not the household. Therefore, the money a man gets from selling his crop also is for him alone, although he frequently gives his family some of the proceeds. Women, noticing that men had a private income and wishing to buy extra things for themselves, started to clear their own bush and have their own plots in order to be able to buy personal goods. Thus, in addition to the household rice plot, there is now often the man and the woman's personal cash crop plot. (This has gone a long way to erode the traditional economic basis of the family.)

Exchange and Marketing of Agricultural Products

Exchange in money and the expansion of markets came slowly after the pacification, but the changes which resulted were extraordinary. Surplus production of rice would have been wasted in the olden days, for there was no way to consume more than what one could eat. The rich, who were the only people with excess capacity to produce, expressed their wealth by having more wives and cattle. Neither added greatly to one's standard of living, although they did add prestige. The availability of a market for rice on the coast, the introduction of

money, the expanded activities of the Mandingoes, and eventually the coming of the kuii changed all of this. Now there was a way to dispose of excess production of rice. Rice could be converted into material goods which would raise a person's living standards appreciably. There also developed a market for cattle, since the kuii and the soldiers wished to obtain meat. There resulted a gradual increase in rice production and a conversion of wealth from cattle to material goods. The extra wives now had an economic function in increased rice production.

The availability of permanent market opportunities brought the realization of a new concept: the initiating of a sale. Prior to this time market exchange had always been initiated by the buyer. Reciprocity, while being initiated by the giver, carefully avoided the connotation of a seller offering a product for exchange. Under the old system, a seller would have been indicating that he was desperate and the buyer would have offered very poor terms. With the new market situation this implication was not present, and the terms of exchange depended very little on whether the buyer or seller initiated the exchange. The idea of selling is still not fully accepted. The farmer is reticent to peddle his produce among potential buyers and feels personally rejected if his product is refused. This attitude hampers the extension of markets and often makes the selling of produce a traumatic experience. Farmers, therefore, prefer to sell to a person with whom they have had a market relationship before. They would rather sell their whole crop in one transaction than individually, even if it means a substantially lower price. The risk under these circumstances is less.

The marketing of rice demonstrates some of the problems involved. A one-hundred pound bag of rice costs approximately five dollars to produce. In order to market it, the rice must first be machine cleaned at a cost of fifty cents per bag (or one dollar for rice that has not first been hand cleaned).

If the bag is transported to Monrovia where the greatest demand for rice exists, an additional transportation charge of fifty cents per bag must be added. In Monrovia the rice can be sold for approximately seven dollars. Thus, a bag of rice costing five dollars to produce, fifty cents to clean and fifty cents to transport will bring the seller a profit of one dollar.

However, in addition to these changes the transportation costs for the seller himself have to be considered. The fare to Monrovia is four dollars one way, so eight bags would have to be sold to cover his transportation expenses. Obviously, a single farmer with just five to ten bags per year cannot afford to make the trip himself. Some sort of cooperative of several farmers would be profitable, but since full-time rice farmers are not kui they do not trust one another. They are unable to calculate sufficiently accurately the costs and returns, and they fear the risk involved in the unknown. They prefer to sell their rice locally.

The availability of markets has been a major factor in Wolota's economic growth. Production in cash crops expanded as farmers were able and became used to the idea of carrying produce to the coast. A great spurt in production followed the building of the road from Palala to Monrovia and after the opening of Lebanese shops at Palala, where crops could be sold and imported goods bought. A further increase in production and a more extensive utilization of more profitable cash crops began with the extension of the road into Wolota in 1961.

The incentive to maintain and improve one's profits is constantly under pressure from a gradually declining price for locally produced agricultural products, especially fruits and vegetables. Farmers, in order to maintain their profits, are forced to experiment with new techniques and crops in order to find better production methods. The agricultural problems encourage the better

trained farmers to specialize in the small production of a few highly profitable items and to continually experiment. They leave the mass production of readily marketable but low profit crops to new comers in cash cropping who are willing to do just a little better than rice farming. The result of this process in Wolota has been a steady increase in fruit and vegetable production and an increase in agricultural efficiency. However, the experimentation is inadequate and often duplicates what is already known elsewhere. Even so, the process of agricultural expansion and improvement is built into the area's farming structure and will require no formal stimulus to keep it going.

Farmer Training and Education Requirements

The various ways in which a farmer learns the technology of growing and processing cash crops have already been discussed. In addition, the educational requirements of a kuii have been mentioned, and these of course would apply to cash cropping too, as this is a part of kuii activities. Only a few points will be presented here.

While the new technology can be learned in a variety of formal and informal ways, farmers must learn to operate in the market system from experience. Friends can and do give helpful information on market behavior to the less experienced, but contacts in the market, the feel of selling and buying, and the knowledge of value and price are mostly self acquired.

Marketing is a very complicated process, especially when one's traditional social system and mathematical concepts are not adapted to that type of activity. A knowledge of English is essential, for participants in market exchange are of a variety of language backgrounds. A farmer must be familiar with the money in use, which in the last forty years have included French, British, American and Liberian coins. He must know the respective values and equivalents of the coins. He must learn to calculate on a base ten system with large

abstract numbers and to do arithmetical manipulations, all of which are not part of his old culture. The ability to read and write is a great help, and the ability to read numbers almost essential.

The easiest way for a child to learn all of this is in elementary school. The further he goes in school the better he can operate in a market situation. Many of the above items can be picked up informally, and a great many of the cash crop farmers have acquired their knowledge of kuii ways while working for one of the foreign concessions.

Farm Investment and Sources of Capital

Most of the increase in production over the years in Wolota has come through increased inputs of labor, not capital. There is universal agreement that farmers work much harder today than their fathers did or than they themselves did when they were younger. Given the traditional system of production, there was not an awfully great need for investment capital.

However, as the farmers have expanded their production and as new production techniques have been adopted the demand for investment capital has increased. Farmers need capital for the purchase of land, seeds, and labor services, and generally this demand is greatest during the beginning of the planting season when the farmer's resources are relatively low. Such funds are generally obtained from the local Lebanese in the form of an advance on the forthcoming harvest or, as is mentioned above, occasionally funds for seeds are borrowed from money companies. In addition, the proceeds from money companies and money kuus are sometimes used for such purposes.

It must be recognized, however, that increased demand for capital inputs into new production techniques will likely expand rather gradually. The traditional method of increasing production through increased labor is relatively riskless compared to adopting new techniques. Nevertheless, as more technical

knowledge is disseminated and as farmers experiment with different methods and different crops, the demand will become greater.

The basic structure of the money company might well be utilized by the kuii to form savings and loan institutions offering capital at low interest rates, similar to the companies found among the Mandingoes. While there would be some difficulty in instituting such arrangements due largely to managerial problems and to a possible scarcity of available savings on which such an institution could draw, nevertheless such a structure does hold a good deal of promise for the future.

IV. External Influences and their Effect on Agriculture

Government Regulations, Policies, Laws and Taxes

The first major change which came after the end of the war of pacification was the introduction of a new system of government administration, politics, law, courts and taxes. These changes were not without their effect on economics in general and agriculture in particular, and the exact content of these introductions has probably had more to do with the growth and change in agriculture than any other factor.

The national government administration introduced a number of new policies into Wolota. War, fighting, murder and later slavery and pawning of people were considered not only dangerous to national security, but also a grave hindrance to economic activity. The suppression of all these formerly prevalent activities brought about an atmosphere of freedom in which the industrious man could accumulate property with little fear for person or possessions. The government favored trade and markets and tried to stimulate the former and actually created the latter.

The theme of economic development has become a major policy of the government and is stressed at every public meeting. The dialogue accompanying Operation Production has continually compared the yearly production of the various counties and as a result has helped develop a competitive spirit among the counties and even clans. Local farmers keep account of who is producing more and try hard to raise the output of their area.

Probably the most important aspect of the new legal system has been the protection of private property. In the past, property gravitated toward the person physically strong enough to protect it. This tendency was only partially checked by a cluster of conventions and traditions. The new government introduced codified regulations, a legal structure for decision making and an administrative body (soldiers or police) for carrying out the decisions. Thus, the property owner could enlist the aid of the state to protect or regain lost property. In addition, the state had a much broader interpretation of what could be considered private property. For the farmer, the most important items considered property were land and personal freedom. Land could become personal property, instead of always being controlled by the sib. And personal freedom was an inalienable right, so that a man might lose his material property through indebtedness, but not lose himself. This has prevented the man of power from re-establishing the former agricultural production institution of the patrimonial-pawn household.

Through its protection of property, the legal system mitigates against the potential atrocities of landlords, and makes possible the buying of land and protection of the land with its crops. It also makes possible the cooperative institutions that deal with money, and other forms of joint property and contracts.

Of all the influences of government the strongest factor pushing the tribal man to increased production has been the tax structure. The tax structure is extremely regressive and the fixed amount of taxation for all Liberians is roughly based on the largest amount the officials believe they can squeeze out of the poorest family. Thus the annual six dollar hut tax and the five dollar education tax is applied uniformly to every house or every hull regardless of income. Any additional taxes originating at the county superintendent level, or higher, are likewise universally applied at a uniform rate. The tribal man must pay, in addition, all the cost of tribal government. This is two and a half dollars worth of rice annually for the clan and paramount chiefs, as well as all other public expenditures of the clan. The hull resident is exempt from all this. So it is very true, that as production increases in the clan, taxes increase even faster. (The hut tax, forty-five years ago, was forty-three cents (one schilling) and is now six dollars. The five dollar education tax was added two years ago, and this year in Bong County there is a twenty dollar tax for the President's birthday.) Yet, for the individual farmer the tax burden becomes proportionally less as his income increases beyond that of his neighbors,. And if a farmer can gain the status of hull, his total tax load will substantially decrease. He will also be relieved of the burdens of public labor and militia training. There is thus a strong incentive not only to increase production, but to shift to cash crops and to try to become hull.

Government expenditures in Wolofa have been small and until recently much less than the tax intake. The major expenditure has been for salaries of office holders and teachers. The only capital expenditure in recent years has been for one Joint Project school. All the roads, two additional schools, and all other construction for public use have been financed by local or private funds.

utilization in future years are worked out. Land, as far as the individual farmer is concerned, has become a limited and valuable resource. His time horizons have expanded from the farming cycle to the family cycle, and education for at least one child becomes necessary if the future of the family and farm are to be secure.

The roads in Wolota were neither built by the government nor are they maintained by the government. The local residents and vehicle drivers are gradually taking responsibility for the local roads. Little effort is needed to keep them passable, except to clean the brush from the sides and repair the many bridges. In conformity with ancient tradition the cleaning is the responsibility of the various towns through which the road passes. The bridges and ruts are handled by the drivers or the clan administration. The standard maintained is that of 'passable', not 'good'. If a truck can pass that is all the better, because the road has to be for profit. Time spent over relatively short hauls is a minor factor. The engineering difficulty of building a road over swamps and streams is a major and perhaps the main deterrent to local road building.

Mandingoes were the first strangers to enter Wolota after the present tribes had settled there. They were, and still are, traders and peddlers buying kola and selling cloth, snuff, slippers, clothing and miscellaneous other personal goods. They now have started to farm in earnest. They usually plant the cash crops and vegetables of lesser value, such as peanuts, egg plant and corn. Others have taken up wage labor as a vocation. They form a scattered, small, but valuable subsidiary social group in Wolota.

The Liberian kuii have been much more important in the development of the area. They were instrumental in bringing in markets and new technology, but most important was their effect on the psychological and conceptual patterns of the tribal people. The colonist and later the educated Liberian maintained

the belief that one of their roles in Liberia was to 'civilize' the natives. This involved the introduction of a complex of western education, Christianity and a new way of life, from the food to be eaten and clothes to be worn to houses to be lived in. Their financial resources to carry out this program of change were extremely limited, but this belief that being 'civilized' was the only right way to live colored their public and private relations with the tribesman. Only he who managed to gain for himself some of the new ways was respected; all others did not need to be considered. Adult tribesmen were usually unable to make extensive adjustments to the new requirements for prestige and respect. Their children could and did go to considerable trouble to learn the new ways.

Western missionaries and later International Voluntary Services and Peace Corps Volunteers did much to reinforce the ideas brought up from the coast. The first local school was opened by the Mid-Liberia Baptist Mission in 1946. The towns' children literally ran away from their parents. They avoided the soldiers who were sent by the parents to guard the paths, and they went to live on the mission in order to go to school. The teachings of the missionaries in school and in church reinforced the values of the new way of life. They not only helped to teach the new ways, but they also managed to break down the old social system by converting tribesmen to Christianity. Their converts were provided with a new set of loyalties and concepts, which the Liberian found to be a more adequate explanation of life and which served as a conceptual basis for the kuii way of life.

In the course of their work the Americans have left the impression that they are absolutely uncorruptible and honest, at least while they are in Liberia. This stands in marked contrast to the attitude that the tribesman and the local kuii have toward government officials (with the universal exception of the President), Lebanese and Mandingoes. These are regarded as corrupt scoundrels and cheats. Other exceptions to this generalization, of course, are those

'strangers' who are either close friends or relatives.

The Lebanese are found only where there is a road. They do most of the marketing of crops, both buying and selling rice and cane juice in volume. They buy coffee and cacao for resale in Monrovia and fruit and vegetables for their own consumption. They engage in both wholesaling (to the local Mandingo and kuii merchants) and retailing. Some do rice milling. All give credit to kuii and Mandingo merchants and some advance money to farmers on the coming rice harvest. There is no interest on such forms of credit, and there is no loaning money without an exchange of goods. The Lebanese speculate on rice. The rice that comes to them in the early months of the year is kept until local supplies get low and some families have to come to them for rice to eat. The stored rice is resold at the Monrovia price.

Schools

Western type schooling is the best means by which one can gain respect from the kuii and by which one can gain entrance into the new economic system. We have seen how the children leave home to go to school in search of respect from the kuii. Parents may allow a child to try school for a few years, but after that the pressure is increased for the child to return to the farm and help with the work. The child, by the end of these first years, has gotten a glimpse of what becoming kuii will entail in the way of further study, as well as some of the advantages of this new status. Thus, the critical decision as to whether to follow the old or new way is usually made in the years around the early teens. (Many of the conversions to Christianity also come in this age period, and this strongly influences the child's decision to continue in school, for a Christian is not comfortable in the old social system.)

As the child continues in school he gradually learns that besides obtaining the respect of other educated people, new economic opportunities are open

to him. In order to take full advantage of these opportunities he must also learn a trade: mechanics, driving, typing, cash crop farming, etc. The decision to go into cash crop farming is rarely thought of as a full time occupation, but as a cushion and insurance in case of trouble, or as a source of funds with which to continue one's education. Cash crop farming is an easy step for the school boy, for he frequently was raised on a farm and he can use his father's, uncle's or brother's land. He probably learned about the new technology in school or while earning money to go to school. The schooling itself has taught him the skill he needs (English, arithmetic, etc.) to market his goods.

V. Summary

Generalizations

From the material presented it is obvious that there has been a great deal of growth and development in Wolota. The long term trend in agriculture seems to indicate that there has been a growth rate of from one to three percent per household per year over the last four years.

Almost all of this change has been encouraged through increased opportunities and stimuli brought in from the outside: from strangers, government intervention, roads, transportation, schools, conversion to Christianity, imported flora and technology, and imports of money from remittances or marketing.

However, the increases in local production have resulted primarily from ever increasing inputs of labor. Longer and more strenuous work days have increased the yields of the old agricultural system. The selling of labor services and time spent on learning new ways have made possible increases in labor productivity. The area has not only been able to generate sufficient capital to provide continual economic growth, but also it has been able to give more financial support to the Government than it has been allowed to receive.

This increase in labor inputs has been made possible by a great deal of structural change in social institutions, goals and motivations. These changes started with the elimination of war and the introduction of the national government structure. Changes in the social system were necessary to increase economic efficiency or to allow a greater input of labor and capital into economically productive activities.

Problems in Agriculture

In spite of (or perhaps because of) the growth and development of agriculture in the past there are now problems facing the farmer which are difficult for him to solve. The first of these is the problem of the procurement of supplies. The sources of many of the new crops are few and scattered. Vegetable seeds are sporadically found in Monrovia and other major market centers. Rubber trees come from Firestone, coffee trees from other farms, and fruit seeds from the fruit itself, if it can be found for sale someplace. Fertilizers and insecticides are even more scarce.

Secondly, there is a shortage of capital, both seasonally and for longer investments. A farmer needs cash at the beginning of the planting season to buy supplies and pay labor, but his income comes in a lump at the end of the season. There is enough time lag before the next season to allow the money to be spent for other pressing financial needs. There is, likewise, very little money for long term investments in land, crops and tools. This problem is likely to persist, for the savings habit seems to be hard to form when cash is in such short supply. Also, farmers are reluctant to take risks with money, since production and prices are so unstable and foreclosure is so expensive.

Lack of modern technology, the third problem, is very great, but the farmer is often not even aware of it. Even if he is aware in a nebulous way that he could be getting better output, or if he has a specific problem, there are no

established channels by which he can obtain any information. He can seek information from Peace Corps volunteers, missionaries, or other farmers. But since few of these have had any detailed technical training they are likely to know little more than the questioner.

Marketing is one of the most critical problems. There is the problem both of finding a market and of getting enough return to make an acceptable profit. The former is most critical for fruits and vegetables, because of the limited size of the market and the fact that the market is so spread out. Very often the produce is highly perishable. Prices are very high for this food stuff, but so are transportation costs and spoilage. Most of the other crops have less of a spoilage problem and the market is well established, but transportation costs are high for the individual farmer with low output and the market price is relatively low.

Because of the nature of the above four problems there is a fifth. The farmer needs a contact man who can supply him with information, material, possibly transportation, and a little credit. A cooperative would solve some of the problems, but there is still needed a person who has contact with markets and the sources of supply and information. This person needs to be trustworthy and concerned with the farmers' problems. So far this problem has been eased by using missionaries, Peace Corps, truck drivers and traveling friends with varying degrees of success. A formal channel would be of great help.

Besides the specific problems mentioned above, there is always the general one of trying to operate in two social systems and being unable to completely free oneself from either. This problem is expressed in specific instances of conflicting goals, interests, and demands by others. Many of these can be found by comparing the two economic systems outlined above but need not be presented here, for their solution is an individual affair and the gradual working out by society of its problems.

Positive Forces

Many of the factors which have spurred development in the past continue to have effect. Some are growing and many seem likely to be present in the future. The opportunities for local economic growth expand as Liberia's general economy grows. Markets expand as more people become kuii, and as the tribal people change their tastes and increase their buying power. The infrastructure of government administration in Wolota seems likely to remain with its present policies and tax structure, laws, courts and soldier-police. Transport facilities continue to grow and while rates have not decreased, the availability of vehicles has greatly increased. The present network of roads is likely to remain, even if in a less desirable condition.

School attendance is continually on the increase in Wolota and more and more children seek a place in the new way of life. Parents in the last few years have started to change their attitude toward educating their children. The changes in agriculture property structure necessitate having one or more educated members of the family to help maintain the family's economic position in the future in an increasingly kuii world.

Behind all of this is the change of goals, modes of behavior and cognition which provide the subjective aspect of development. As these new concepts continue to spread the people more and more avail themselves of the economic opportunities.

Evaluation

Barring unforeseen and far reaching changes in Liberia, agricultural growth and development are likely to continue. The fortunes of Wolota may wax and wane with the changes in activities of the concessions, but its agriculture seems certain to continue its growth and to continue to be dominated more and more by cash crops. The area's farmers are in most ways quite

divorced from events which take place in Monrovia. Development has taken place within a political and governmental structure which, while relatively new to the area, is over a hundred years old and is not likely to be altered rapidly. Government expenditures rarely reach Wolota anyway, so the fortunes of the budget are not apt to have much effect on this region.

The communications network will be maintained and may even improve. The roads will be kept in passable condition through local effort. The volume of traffic will undoubtedly continue to grow as more coffee and cacao trees mature and bear fruit, and as more vegetables, fruit and rice are grown. As cash crop farming expands, local markets will grow too. There will be more money to spend on more goods. The pressure for cash is apt to increase rather than diminish, as more and more local products enter the local market and money transactions aid in distributing a larger share of subsistence.

The market pressures on farmers will continue to encourage local experimentation in agriculture. The higher economic advantage of other cash crops over rice farming will stimulate more farmers to use the suited technologies although this change will come slowly. The low return on upland rice farming, the economic advantages elsewhere, plus the belief that rice should not be a cash crop, will probably mean that small farm rice production, without a major change in technology, can never supply Liberia with enough rice. In fact, upland rice production is apt to decrease with economic development.

The number of kuii increase each year. As long as schools are available, this trend will continue. The advantages of being part of the modern world are obvious now to both parents and children. The reservoir of modern skills and technology continues to increase, and the level of education rises each year.

Improvements in agriculture are going to come largely from the kuii. The tribal farmer, because he is likely to remain faithful to his traditional

structures, is not going to wish or be able to undertake radical changes. The kuii man or the farmer trying to become kuii has adopted the goal of economic growth and expects to change his behavior patterns. He is receptive to some new ideas and is more willing to take risks. Also he has less to learn than the more traditionally oriented man, for he is already familiar with the new social system within which cash farming operates, and he has obtained some of the new skills which one must have to function in a market economy.

On the other hand, many of the traditional farmers have been forced into the cash economy. The hut tax has always had to be paid in money, so the farmer has had to sell something in order to acquire the necessary cash. As this tax has increased, so have market activities. Many of the fines associated with the court system have had to be paid in cash. Also, the strong urge to enjoy the newly available consumer goods has resulted in the rapid spending of any small cash on hand, so generally no funds have been saved for taxes and emergencies. The farmer has thus been forced into debt financing of many major expenses. Because he has been in debt, the farmer has had to produce and sell more crops. Most loans to the non-kuii are used for debt payment, rather than productive investments. At repayment time there are no savings on which to draw, so the debtor usually tries to refinance his loan with another creditor until he has an opportunity to grow and sell more. The result is a gradual increase in agricultural production and participation in the market system by non-kuii. A reduction of taxes or fines would probably result in decreased agricultural production.

There are extraordinary difficulties in changing over to the new social structure, including the new economic system within which market agriculture must operate. The process will take at least another generation or two. However, the battle gets easier each year. The war was probably won in the

late forties when the children defied their parents and the soldiers and went to mission school.

The United States Government has had only a minor and peripheral part in this development except in roads and schools. Unlike in other countries, such as Iran, Pakistan and India, the American Government has never had, to my knowledge, an extensive community development program in Liberia. Such a program involves sending trained personnel to live in a village. They attempt to develop and encourage local communities who would help themselves. The International Voluntary Service program was too short lived and was mainly concerned with education. The Agriculture Extension Program assumed too high a degree of sophistication on both the part of the agents and the farmers. The program in the above-mentioned countries, which are more developed rurally than Liberia, were not so advanced. There seems to always be an underestimation of the difficulties of development in Liberia. Perhaps this is in part because it has been assumed that it is possible to change one little aspect of a culture without having to disturb the whole social fabric. The contention of this paper is that this is not true. The seemingly simple step of just increasing one's output or planting a few cash crops has required in Wolota the adoption of a whole new and radically different social structure and economic system. Because there has been an underestimation of the changes that have to take place in order to have economic development, there has been an underestimation of the extraordinary amount of change which has already come about.

If the Agency for International Development chooses to continue its present activities and to ignore rural development of small farm agriculture, it will not only do very little harm, but may even help that form of production. Any construction of roads, improvement in government administration, or school development is bound to have some indirect benefit for agriculture. However, if the Agency wishes to move into the area of small farm agriculture, then a

few points outlined below might be worth considering.

Considerations and Recommendations

Community development, of which small farm agriculture is a part, requires that the decision making process start with the local community and the individual farmer. It is their needs which must be fulfilled, and each community's needs may be different. An over-all program cannot originate at the top and then be implemented according to an administrative plan. This will most likely miss the central need of most communities and certainly will not encourage their participation. A different philosophy and structure of planning than that which has been employed in Liberia (including RAD) before has to be implemented. Channels of communication directly from the individual tribesman and his town up to the planners and distributors of funds and materials must be opened up. No such communication system exists today and it may only be possible by using the foreign community as some of its major links. This is actually what is happening in a haphazard, informal way now through missions, Peace Corps, and AID personnel.

The formal communication channel should also work the other way. Local people have no idea what supplies and services are available from governments, concessions, and other farmers and markets. There is now no way for them to find out what is available if they tried.

The most difficult links to establish are at the top and the bottom. There needs to be some one, or a group at the top, who knows what is available and where, and who is also able to implement requests. At the village level there needs to be a person in contact with the local people. He must show concern for their problems and be willing and able to take initiative at times when example is necessary.

Also, he must be absolutely trusted by the people. He, of course, would have to be linked through regional representatives with the persons having the information and the supplies.

Any program of this radical a nature faced with such difficult problems would of necessity at first be a very small operation, and it would have to be conceived to run a long time without accurate quantitatively measured results. Its essential feature would have to be flexible experimentation and a willingness to take risks. The program possibilities are too wide to mention, but road construction and school repair and expansion are bound to be part of it.

The program of Jordan Holiam utilizing Peace Corps Volunteers seems to be designed specifically to try out the approach mentioned above. It appears also that Americans are the only people in a position to implement such a program, because of the reputation they have with the local people of being honest and concerned with local problems.

It does not seem possible for AID to have an effective small farm agricultural or rural development program without the above mentioned communications network staffed by Americans (either Peace Corps or AID personnel). If such a system were in existence then there would be many ways in which AID could be of direct help to local communities. It could supply building materials of all kinds, technical information, upper level technicians and engineers, tools and equipment, credit facilities, marketing research and perhaps marketing coordination.

To try to supply these services to local communities without first investigating the local needs would be a very inefficient use of resources, and without community support it would likely result in project failure. The top-down approach will not work for rural development.

Suggestions for Assistance
for Rural Development

David Blanchard

10

The following is a list of ideas that I feel would be helpful in facilitating Liberia's development. They are presented as topics of discussion rather than full-blown plans, and they spring out of several years of the author's involvement with development problems in Liberia rather than detailed research. With only a few exceptions, these ideas are presented on the assumption that the recommendations of the previous section will be implemented, or that AID wishes to implement them.

The details of the communication-administration network mentioned previously will have to be worked out slowly over the years, but one of the key requirements will be sufficient staff. I assume that the village workers will be Peace Corps Volunteers, either teachers doing Community Development on the side or full time specialists living in villages. In order to be effective, they will have to be in frequent contact, at least once a week, with the next link in the chain. I think that there will have to be a technical staff made up of specialists in horticulture, animal husbandry, construction, and marketing. This staff would be responsible for answering the technical questions of the village workers. The individual staff members will have to be able to make visits, to direct projects on a short term basis and to be involved in training. If the project becomes big enough, there will be a need for regional directors and an overall co-ordinator (which, of course, will presently be Jordan Holtam).

On the AID side there is an immediate need for a co-ordinator to be a counterpart for Holtam. This co-ordinator needs to know what supplies are available from where, and he should have the power to administer their distribution. In addition, he would feed information concerning rural development into AID offices. This job requires a broad knowledge of suppliers, concessions, missions, colleges, manufacturers, private organizations, and

government offices in Liberia; a knowledge of the special interests and skills of these institutions; and what materials they have available.

The establishment of a rural development program requires a good deal of caution. The first years will necessarily be experimental and will not produce many results. Jordan Holtam is not an 'organization' man and he resists the establishment of too much formal structure. For him, the key to success in community development is flexibility, and AID will have to take this into account in trying to get him to create a program. The trouble with trying to move too fast is that the temptation to create a tight program may be yielded to at the cost of creative actions.

AID might consider using International Voluntary Services Volunteers for staffing the lower levels of a rural development program. IVS specializes in rural area development and has a quality of volunteer which is usually slightly higher than that obtained through Peace Corps. IVS might be especially useful in supplying a technical staff.

AID urgently needs, even without a rural development program, a researcher or research staff to channel information into on-going programs and perhaps into over-all planning. The agency now is operating mostly in darkness (and has been for several years) as to the actual development situation in Liberia and with regard to the possible effects of various programs. The information that AID has had up to now has come mostly from visiting researchers with little experience in the country, Monrovia bound government officials, and houseboys. Valuable sources of information and experience (Peace Corps Volunteers, missionaries in the interior, and the universities) go mainly untapped. Yet the AID officials, at least in the various divisions, are starved for facts upon which to make decisions. The agency needs a consultant who could evaluate ideas and programs in light of Liberian history and social context, and who could be called upon to find answers to questions raised in programming. This research staff

should not be administratively under rural development but serve all AID divisions.

The Education Division turned down an offer by John Gay, chairman of the Social Science Division of Cuttington College, to do research in the cognition patterns of Liberian children for the development of textbooks which would be relevant to local conditions. He was told that such an approach was too slow and the division had to get on with the business of actually developing textbooks. Other research which is already underway at Cuttington is being ignored, probably out of ignorance. AID should at least make an effort to find out what is going on in other institutions which may be of help to its own program, and also carefully consider undertaking basic research in Liberia.

AID will probably not be able to find staff which is already informed about Liberia. The work of collecting information will be one of the prime functions of the first direct hire personnel. In addition, this material will have to be recorded in an accessible form for reference.

The AID rural development staff and technical advisors will have to shoulder the major burden of training the field workers and their replacements. Training of personnel for this type of program cannot be undertaken entirely outside of Liberia. The people on the job will be the only people who will know what is going on.

One of the basic reasons that there needs to be a co-ordinator for the rural development project is that there is a good deal of overlapping and specializing by suppliers. CARE and Catholic Relief both distribute food, but to different groups. CARE, AID, GOL and Peace Corps all have some school supplies, but a teacher (a PCV) has to hunt around among all four to find out if what he needs for his school is even available. Craft supplies are scattered all over Monrovia in specialty shops, but some agriculture and mason tools

are available free from CARE, and others may be bought through CARE at reduced rates. Seeds and fertilizer are available both through CARE and in certain stores. 'American' chickens may be obtained from some of the commercial farms or from some Christian missions. Swamp rice seed can be obtained from Suakoko, Gbedin or the Gbarnga Extension Office.

There are some things which, to the author's knowledge, have only one supplier: Leghorn chickens from Brown's poultry farm, hogs from the Ganta Methodist Mission, palm kernel seedlings from the Bolahun Mission and certain seeds from ULRC.

Any community development program is going to have to know where things are available, and what is going to have to be supplied from the outside. The administration should know which source is capable of expansion to meet growing needs for supplies.

The establishment of a minimum price (maybe \$6) paid by the Lebanese to the farmer for rice might do much to stimulate rice production. The Lebanese make a great profit in buying rice and reselling it later locally or in Monrovia. Some profit is warranted, but \$2 on a \$5 investment seems high. Perhaps legislation might also be introduced which would force or encourage the Lebanese to invest in Liberia instead of sending so much money back to Lebanon.

One of the problems in expanding vegetable growing is the availability of seeds. The cans of seeds from ULRC and, sometimes, from a couple of Lebanese stores in the interior are too large for the small producer. The Lebanese sometimes repackage them in smaller bulk, but the spoilage is so rapid that unless there is a very fast turnover this is not profitable. The "25¢" packs available in the supermarkets are too small and are not available up country. There is a need for a medium size container with excellent storage capacity,

which Lebanese in the vegetable growing areas should be encouraged to carry.

There is a need for high quality low cost seedlings of coffee, cacao, rubber, fruit and palm oil. Holtan finds that the local farmers cannot even pay the costs of palm oil seedlings. These seedlings would have to be available for wider distribution than just at Suakoko. (In Iran, AID tried having one or two acre experiment stations scattered all over the country to supply farmers with higher quality plants.)

The problems of continuing to increase upland rice production in populated areas are not likely to be met with placing increased acreage under cultivation, for the fallow cycle has in some places already been reduced to too low a level. The experimentation in improving the yields per acre at Suakoko and Firestone needs to be continued and expanded to include a variety of conditions.

I understand that land clearing by bulldozer is currently under discussion by AID/L. However, land clearing does not appear to be the answer. Bulldozing removes both the trees and much of the top soil. With prevailing production methods, this means that few nutrients are left for the crops. The trees and brush which would have provided needed pot ash are not available, and I understand that water erosion is greater when there are no logs and stumps to break up the flow. If land clearing is to be facilitated, then I think the introduction of power saws is a better investment. They are cheaper and can be maintained by local mechanics or Peace Corps Volunteers.

To my knowledge, there has never been a program in Liberia, such as AID has had in a large number of other countries, for the mass distribution of 'American' chickens. Missionaries, IVSers and Peace Corps Volunteers have raised and distributed improved poultry to local farmers, but only on a small scale. One of the major problems is that the foreign breeds have a hard time adjusting to living on the ground and eating Liberian chop. The closest supply

AB

of inoculation serum in Kakata, and many of the imported stock (as well as the local chickens) die during the rainy season. Also, there is no source of supply of chicken feed in the interior. Unfortunately, a large quantity of rice husks from the rice mills is burned for lack of a market, and this makes a passable chicken feed. American chickens are highly esteemed in the interior, but they are a risky investment for the farmer and are very hard for him to get. Distribution programs, similar to those in other countries might succeed in Liberia too.

In this same vein, there has never been a hog, sheep, and goat distribution program. The cross breeding of local hogs and imported stock is being carried out on the Ganta Methodist Mission and by a few PCV's in that area. AID has a hog program in Viet Nam which has had its problems, but it may indicate a program that might work in Liberia.

The LAMCO service road from Wolota Clan to Lower Bassa County is out of commission for want of culverts and a few bridges. A large section of Liberia would be accessible if this road were repaired. The full potential of the Yila-Tappi road will not be utilized unless the road from Yila to Palala is partly reconditioned, some of the bridges fixed with culverts, some of the bad curves straightened, and a few grades reduced.

It would save a lot of trouble in the future if the concessions were required to put in their access roads with permanent bridges and culverts. The savings maintenance costs should cover the extra expense. Then the road would be available for later commercial use.

LAMCO is now doing the actual maintenance on the parts of its access roads that it still needs. It might be possible to make a contract with LAMCO and other concessions to provide maintenance on the roads they build even after they are through with them. This might be cheaper than having the Department of Public Works take over and the job would get done.

. 64

The paving of the stretch of road from Suakoko to Palala might be more worthwhile than re-doing the Monrovia-Firestone road.

A large area of Liberia could be opened up to cash cropping simply by widening the paths which lead from a main road to near-by towns. The only major construction hazard is the frequent streams and swamps which would usually need culverts or, only occasionally, small bridges. A power saw would hasten clearing but would not be absolutely necessary. Also a Jeep pick-up with a winch would help in pulling stumps and logs as well as carrying fill dirt and bridge material. Local labor could be utilized and the local community would maintain the road once it was built, as it did the path before.

Prior to the construction of any motor road, AID should try to talk with every town, quarter and clan chief through whose territory the road will pass and inform them of the land requests which will come with the road. The chiefs should be strongly encouraged, possibly through repeated visits, to get their local people to obtain certificates to the land along the new road before strangers put pressure on the chiefs for land.

The development of the area transversed by the LAMCO railroad might be speeded if the company would open its shuttle service to the public and charge for the service. Now the shuttle is free, but only open to employees and others with special permission. LAMCO's hesitance to do this may be prompted by the unfortunate experience Bomi Hills has had, and some provision for accident insurance may be necessary.

The marketing of fruits and vegetables in Liberia could use some attention. The high prices in Monrovia reflect a lack of centralization and poor communication rather than low production. Perhaps it would be possible to establish a produce market and distributing center in Monrovia where any farmer could sell his crops and the supermarkets and other stores and venders could buy them.

The present arrangement is for stores to contract with farmers (usually Honourables) or to buy as farmers bring their produce around. Up-country farmers, on the other hand, try to peddle their few bags of vegetables or fruit around the city. If there were a relatively certain market, farmers would bring in more produce and would accept a lower price. A central market might introduce a more rational pricing system in which the price of individual items would reflect more closely the supply, rather than all goods selling for the same per-pound price.

If there were a central produce market in Monrovia, perhaps a rural collecting system might be profitable. Farmers would much rather produce than sell, for they have high transportation expenses every time they have to take their goods to the towns to sell. Already, the Mandingoes in Gbarnga go to Wolota to buy egg plant directly from the farmers. This certainly could be expanded to other crops if a market for bulk produce existed.

An example of the marketing potential is the system set up by a PCV in Wolota, whereby the LAMCO camp manager there bought the vegetables the local farmers brought to him and sent them to Nimba and Buchanan camps on the railroad. Production in Wolota shot up dramatically until the manager was replaced by a man who did not want to cooperate.

Monrovia needs a market for Liberian hand crafts. The leprosy patients at Ganta produce a large volume of wood carvings, but they have no way to sell them in Monrovia where most potential buyers are. The Lutheran Mission in Zorzor also sells locally made products. There are a number of missions and individual craftsmen who would gladly supply Monrovia with carvings, cloth, baskets, etc. at low prices if there were a small, central, well advertised shop with fixed prices. The Ducor and the "Charlies" have prices too high to attract many local buyers. That there is a sizable demand for such goods is

56

witnessed by the author's own experience in selling craft goods in Monrovia through AID wives.

With the large European community in Liberia, and the fact that most of it is linked together by road and railroad, there might be a possibility for either a milk reconstituting plant or fresh milk production.

In the area of public health, there are a few things that could be done which might have a very beneficial effect. Both toilets (W.C.) and wells are dug by Mandingoes for approximately ten dollars each. The holes are round and slightly less than three feet in diameter. A reinforced concrete slab with a square hole in the middle could serve as a cover for both. These might be prefabricated some place and distributed for a nominal charge, or even free, to anyone who managed to get a hole dug. There might be an added encouragement of supplying zinc for roofs. There is apparently a Liberian law that every house on a motor road must have a toilet. The enforcement of this law might be encouraged.

CARE has fabricating forms for well-capping which they let PCV's use. Unfortunately, there is only one set and the required dimensions are larger than the traditional well diameter. CARE will also supply pumps for schools, if the well is properly capped. AID might be able to help expand this program to other schools and even towns and make forms to fit the smaller holes.

There is a need in the Interior for both 55 gallon drums and for non-rust paint for converting the drums into water retainers. They would be used mostly for collecting water off of zinc roofs for drinking, and would thus give some people more pure drinking water.

The construction of mud block houses in Liberia is extremely hampered by the short drying season. Cement blocks are very expensive. There might be a possibility of a mud and cement block machine program, especially in the Voinjama area where most construction now is with blocks.

51

One of the major needs of rural schools is chalk boards. Existing ones deteriorate rapidly from hard use and termites, and they are very hard to replace because the special paint is expensive and only available in Monrovia. CARE has a school equipment kit with some paint in it but it is too small.

Last, and least, I recommend that this author be considered for one of the posts suggested above. I do not know whether or not he will be available after the completion of his dissertation next spring. While his formal administrative experience is limited to his previous work in Liberia with IVS, he does have a better background on Liberia than some.

* * * * *

ADDENDA

A.) While a reduction in hut taxes would have some ill effects, an increase in taxes on zinc roof houses might be desirable. Zinc roofs could be taxed at at least twice the present \$6 rate without unduly burdening the owners and the increased rate would probably not discourage expenditure for these structures. A house with a cement floor might be taxed even more highly.

B.) There are a number of services a PCV could provide his community in addition to helping with the general farming problems mentioned above. He could encourage greater rice production by offering to mill rice at a reasonable cost.

Money companies are in need of advice on record keeping and simple accounting techniques. Also the PCV might provide banking facilities for money companies and maybe even for personal savings.

C.) Loans (from AID or LAMCO) to farmers for buying land would solve one of his pressing capital needs, and repayment would force him to increase his output. Except in the case of kuii with good credit ratings, initial loans should not be for more than 50 dollars, and even then a kuii should be used as a gc-between and held responsible for the loan.



FAR 7430

WILLIAM RICHARD STANLEY
Department of Geography
~~State University College~~ *Univ. of South Carolina*
~~Cortland, New York 13815~~ *Columbia, S.C. 29208*

The Lebanese¹ in Liberia: a Study of their Influence upon the Agricultural Marketing Process

The agricultural sector of the Liberian economy has not developed as rapidly as was anticipated by the government. Characteristic of the Liberian Government's attempts to improve agricultural production is "Operation Production," an endeavor sponsored personally by President Tubman to encourage increased yields of rice in particular, as well as coffee, cacao, and palm kernels for export. As the number and scope of mining concessions and natural rubber plantations increased, a substantial number of the able-bodied male work force was removed from subsistence or cash-crop agriculture. Their basic food requirements were accommodated through an ever-increasing import of rice, which became a significant drain on the country's foreign exchange. Even where increased agricultural production is apparent, it has usually taken place in natural rubber cultivation rather than in the traditional export crops. In the late 1950's and the early 1960's, however, certain improvements in cash crop agriculture were taking place which were directly related to government-sponsored new road construction enabling road transport to enter hitherto inaccessible areas. Interwoven with the construction of new roads in the Interior has been the proliferation of Lebanese-built and operated stores bordering them, which appeared rapidly after the roads were built. In some cases, their construction preceded the road, once the route was known.

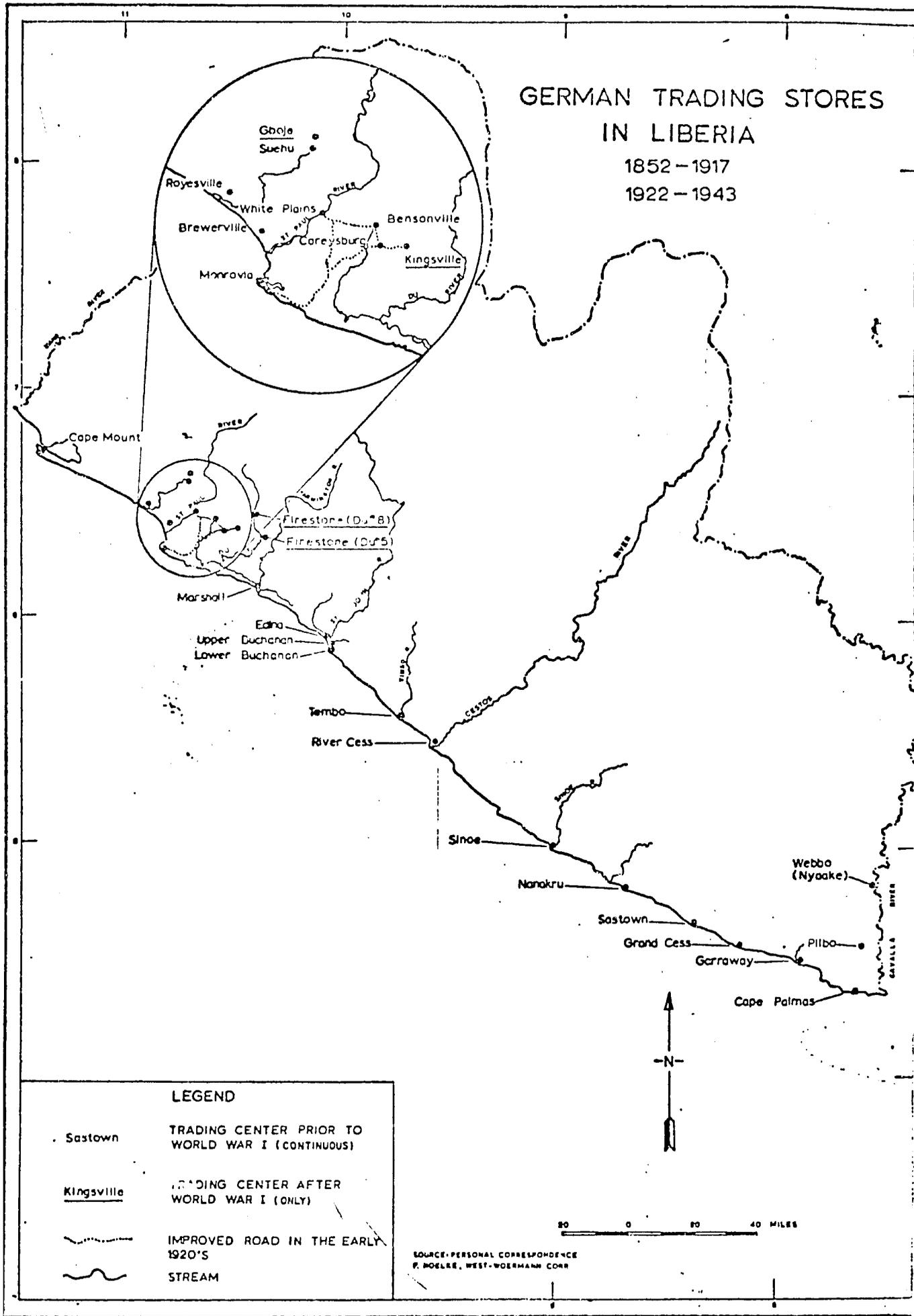
¹The term Lebanese includes Syrians as well as immigrants from Lebanon.

The involvement of the Lebanese in Liberian agriculture cannot be overstated. Their influence has increased in spite of the fact that in 1963 the Liberia Produce Marketing Corporation, a government-sanctioned marketing board, was established for the purpose of increasing agricultural production through the establishment of more equitable prices and improved marketing procedures. Lebanese merchants^{nevertheless} continue to dominate both the retail and the wholesale aspects of agricultural marketing in this country. It is a role which has not been without problems^{however}. As profits for those Lebanese already established increased, thus stimulating immigration from Lebanon, so did complaints concerning their business practices. In spite of the partial accuracy of various charges made against the Lebanese as businessmen--such as non-employment of Liberians, or irregular business procedures--they have, and are continuing to contribute significantly to the economic development of Liberia. Since this paper is a study of the Lebanese and their involvement in agricultural marketing, it is perhaps appropriate to bring to light certain myths regarding their role in Liberia as well as in the whole of West Africa. Some people imagine that the wealth that many Lebanese have obviously acquired has^{been} somehow/stolen from the African population. Actually, their presence has probably been a net asset for the country. It is a role which can continue to be of real significance.

The Levantines in West Africa represent types of immigrants who have an important part to perform in the economic development of many under-developed countries. Although they are rarely highly educated, they are resourceful, industrious, enterprising, and exceptionally gifted in the perception of economic opportunity. They are independent of existing commercial interests, and in many branches of trading activity are important and effective competitors of the large European firms. As they are prepared to accept a lower remuneration than western European personnel, the services they render are performed at a correspondingly lower cost.

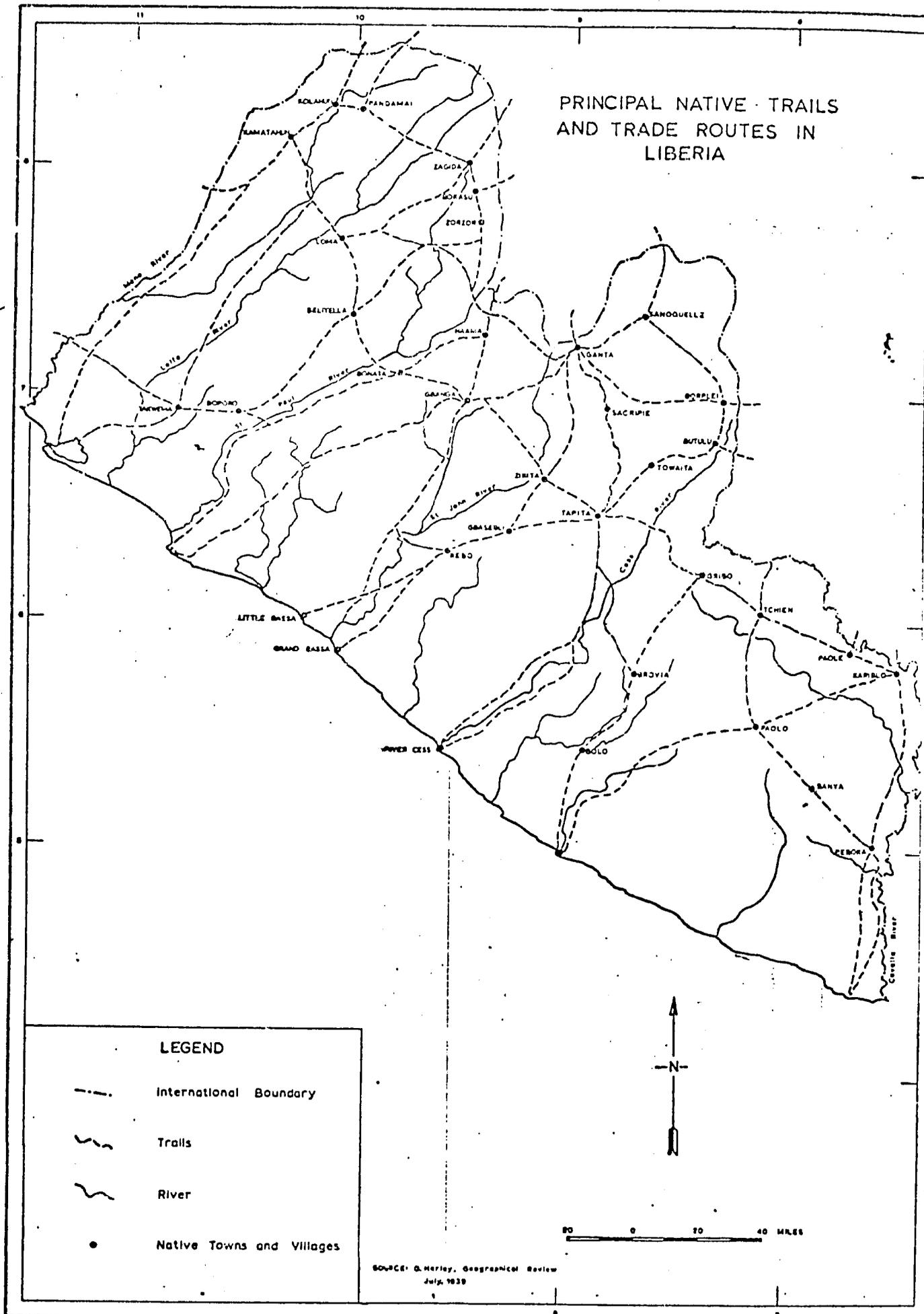
GERMAN TRADING STORES IN LIBERIA

1852 - 1917
1922 - 1943



.61

Figure 2



In West Africa, as in many other parts of the world, the immigrants who could contribute most to economic development are regarded with the greatest suspicion by influential sections of the administration, their admission particularly resisted, and their activities restricted under pressure from local sectional interests and from already established expatriate commercial interests.²

To evaluate their part in the agricultural marketing process in Liberia, let us look first at the marketing process prior to the arrival of the Lebanese, and then compare this with the present situation.

Agricultural Marketing before the Lebanese

From the time of the establishment of the Republic of Liberia in 1847 up to and including the time of the entry of the Firestone Rubber Company in the late 1920's, the marketing of cash crop agricultural products was primarily in the hands of the indigenous tribal peoples and the Mandingo traders. There were few Europeans in the Interior, and of those who did penetrate inland from the coast, most were missionaries or explorers. The European trading stations were located at coastal sites, or in a few instances, adjacent to the lower reaches of the major rivers (Figure 1). The larger of these central trading stations were connected to the Interior by a well-established system of trails and trade routes (Figure 2). It should be noted that the Americo-Liberian fared little better than the European in the establishment of trade centers in the Interior. Both groups maintained themselves on the coast, and were dependent upon the traditional system of tribal trading patterns for their export crops. A journey of several days was often required for the native farmer or gatherer to bring his produce to the coast, and as a result, the volume of agricultural produce marketed at the European stores was not substantial. For instance, only two ports in the period from 1906 to 1912

² P. T. Bauer, West African Trade: A Study of Competition, Oligopoly, and Monopoly in a Changing Society, Cambridge, England: Cambridge University Press, 1954, p. 164.



had a total customs revenue exceeding \$100,000, and the median fell far short of this figure (Table 1). There are no records available for determining the percentage of customs revenue derived from goods exchanged for agricultural produce, but it should be assumed that their contribution was a significant proportion of the whole.

Arrival of the Lebanese

It is thought that the first Lebanese arrived in Liberia at the turn of the century, some thirty years after their first reported entry into West Africa.³ But why did the Lebanese go to West Africa? Among the answers is the old saw that "the West Coast of Africa begins in Marseilles" plus the fact that almost all west-bound Lebanese emigrants, regardless of their hoped-for destination, went to Marseilles to book onward passage. The first immigrant to West Africa might very well have been put on a ship by an unscrupulous Marseilles shipping agent and not have learned till after anchor had been weighed that he was heading for St. Louis or Dakar, instead of New York or Sao Paulo. In general, however, we may assume that at the beginning Lebanese went to West Africa because they found, after they had arrived in Marseilles, that they could not get to the New World. Several causes were at work to prevent them from doing so. One was that health requirements for immigration to the United States were strict whereas those for West Africa were lax. Another was that they found their funds insufficient to cross the Atlantic, but that fares to West Africa were cheap. A third was that travel documents were not necessary in West Africa. Also, French shipping lines trading in West Africa, and their agents, were eager to secure business and no doubt gave glowing reports of the situation

³R. Bayly Winder, "The Lebanese in West Africa," Comparative Studies in Sociology and History (The Hague), IV (1961-1962), p. 300. This work by Winder is one of the most comprehensive studies available concerning Lebanese emigration to West Africa, certainly one of the best to appear in English.

in West Africa.⁴

Irrespective of the precise date of their arrival in Liberia the Lebanese were and have remained primarily, but not exclusively, traders. They moved rapidly into retail trade of a more fixed variety, and then into the wholesale business. But they worked a two-way street, the other side of which was the purchase from the Africans of produce such as coffee and palm oil for sale to the large European exporters.

For the first forty years of their presence in Liberia the ever-increasing numbers of Lebanese were located primarily in and about the several larger coastal towns. In the Monrovia area their stores penetrated inland as far as the Firestone Plantation, which was as far as the road went, for all practical purposes. Their entry farther into the Interior was greatly restricted until the 1950's, when road construction began to penetrate the hitherto isolated portions of the country. These traders followed the road and their present locations bear out this relationship (Figures 3 and 4).

It was only a matter of time before the Lebanese began to concentrate in those interior towns situated in the more productive agricultural regions. It was not surprising, therefore, that the northwestern portion of the country received a disproportionate number of traders, many of whom have been established for upwards of fifteen years in the same location. The basic pattern of store location in the high population-high agricultural productivity zones was appreciably altered with the development and subsequent growth of the iron mining companies and their satellite towns. There is scant evidence of Lebanese stores operating in villages (no matter how populous) any appreciable distance from a road. The Lebanese trader is a pioneer only to the extent that road access is available.

⁴Ibid., pp. 297-298.

TABLE 1

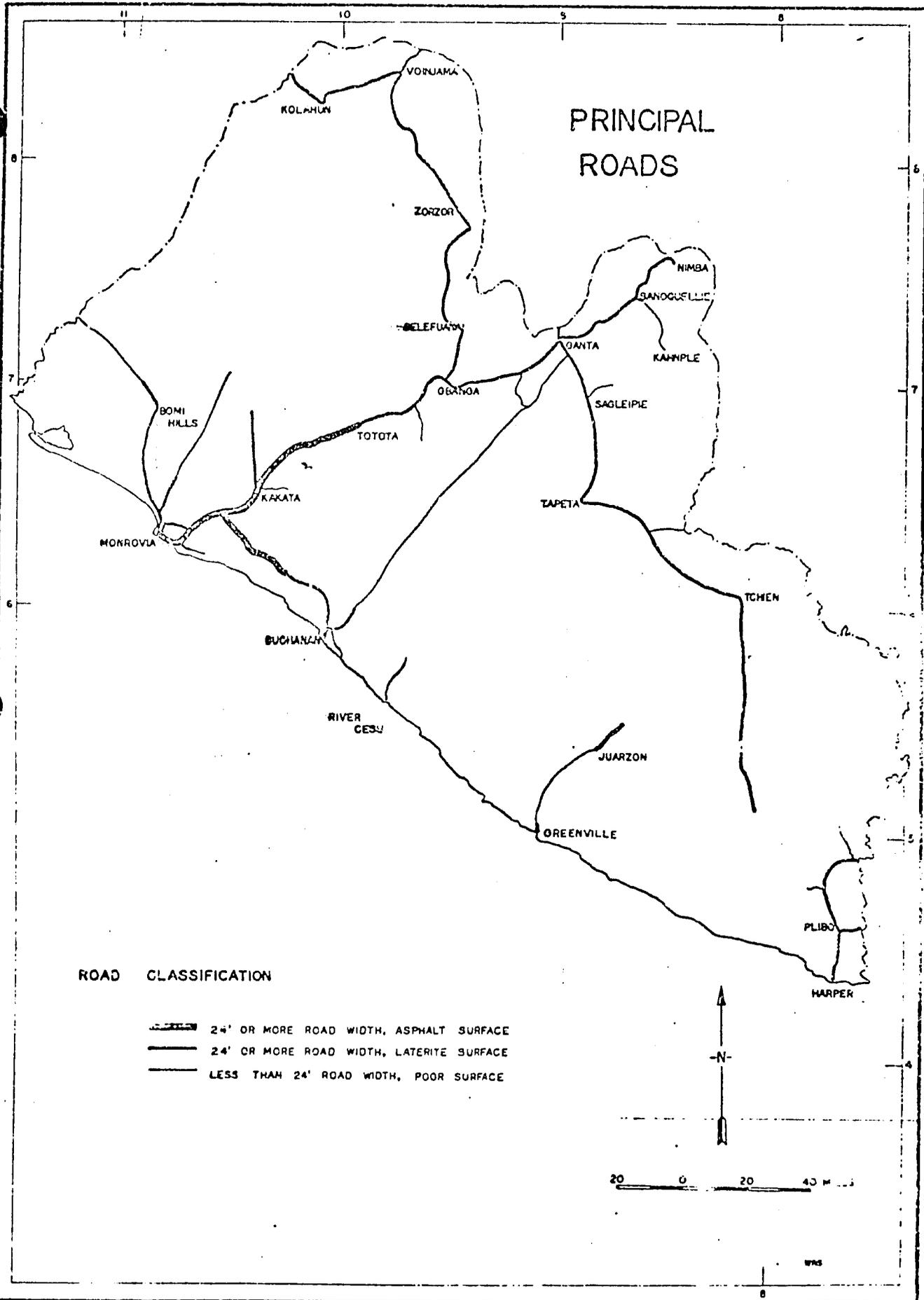
STATEMENT OF CUSTOMS REVENUE OF THE REPUBLIC
OF LIBERIA FOR THE YEARS 1906 TO 1912^a
(APRIL 1 - MARCH 31)

Port	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12
Monrovia	\$114,098	\$129,077	\$128,030	\$117,524	\$135,916	\$144,292
Cape Mount (Robertsport)	38,128	31,901	19,327	25,907	27,809	36,125
Marshall	11,195	18,412	16,666	8,211	12,761	23,579
Grand Bassa (Lower Buchanan)	103,494	112,168	105,273	109,876	118,782	140,457
Sinoe (Greenville)	30,228	32,784	27,172	33,960	28,208	31,784
Cape Palmas (Harper)	30,603	41,413	48,314	66,018	78,023	86,615

^a Frederick Starr, Liberia (Chicago, 1913), p. 143.

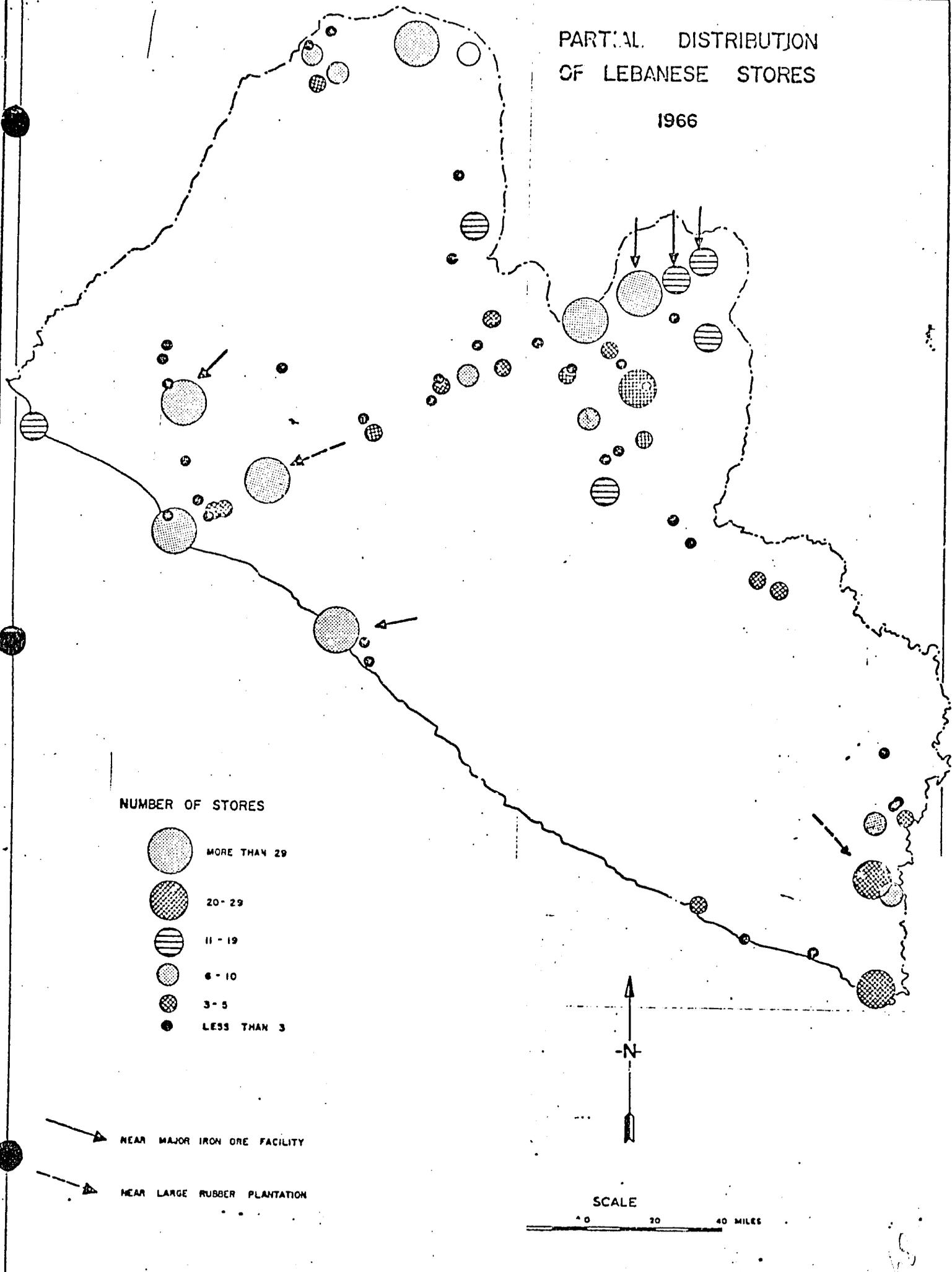
100

PRINCIPAL ROADS



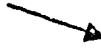
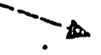
PARTIAL DISTRIBUTION OF LEBANESE STORES

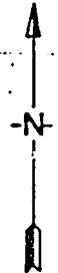
1966



NUMBER OF STORES

-  MORE THAN 29
-  20-29
-  11-19
-  6-10
-  3-5
-  LESS THAN 3

-  NEAR MAJOR IRON ORE FACILITY
-  NEAR LARGE RUBBER PLANTATION



SCALE



These traders effectively control the retail trade in the Interior and have a substantial influence ^{on} the economy as a whole. Much of the imported goods brought into the country are consigned to a few large Lebanese wholesalers who then distribute these same goods to the smaller retail stores operated by Lebanese. The retailer both sells and barter goods, and eventually controls the bulk of the cash-crop agricultural produce in a particular area. He is more than a match for any European and is usually able to compete favorably with the African trader. Because he can provide transport for shipping the agricultural produce to Monrovia, be it by his own vehicle or one belonging to another Lebanese, he has a distinct advantage over the small-scale African farmer who, hoping for a better price, may wish to market his crop in Monrovia, but who is without transport. Commercial road transport costs vary considerably but on the whole tend to be on the high side. In any event, the Liberian farmer is at a disadvantage when bargaining with vehicle drivers to ship his produce. The latter are keen businessmen and strive to earn all that the traffic will bear.

The typical Lebanese store is usually a family-operated affair, with occasional instances of brothers or colleagues working together. This is particularly true of stores on the frontier of road construction. Because a Lebanese merchant's stay in Liberia may well be a limited one, there is considerable contrast between the quality of store construction of the established trader and the recent immigrant. Those traders who came early in this century and whose children remain in the country to carry on the family business live and work in above-average physical facilities. On the other hand, traders who have been brought into the country by certain of the large wholesale companies are in a sense a twentieth century version

of indentured servants in the early United States. These people buy from and sell to the same wholesaler and hope to repay the cost of their passage from Lebanon with quick profits. Their stores are scarcely of any better construction than the worst of local Liberian structures, and in many instances, fall far below the physical standards of the latter. The appearance of their shops as well as their trading practices indicate a limited-stay-in-the-country philosophy. The well-established Lebanese, particularly those who have been in the country for some time, are as a rule more equitable in their dealings with the Liberians. In Monrovia and larger towns throughout the country, they participate in the social and civic life of their communities. Unfortunately, the poor business practices of the few can and often does cloud the reputation, and perhaps the future position in Liberia, of all Lebanese.

Traders in the Interior, particularly those situated in regions of more concentrated agricultural production, have developed an exceedingly intricate trading pattern. Often they will go into areas inaccessible to motor vehicles in order to establish verbal contracts with Liberian coffee and cacao producers. Arrangements are then made to have a truck meet the farmer at a designated time and place on the road, where cash payments are given for the agricultural produce and rides offered to those farmers who desire to continue on to the town to do some shopping. In this way the trader is hopeful of getting some of his money back through the farmer's purchase of imported goods, which are sold at considerable profit. Other farmers not wishing to or unable to arrange marketing procedures of this type will headload their produce direct to the market town, often desiring to trade at a particular Lebanese shop. The small savings in transportation costs by these farmers is more than offset by the extra effort and time involved in getting to market. Since motor vehicle service is so desirable, there is little hesitation on the part of the farmer to pay for such trans-

110

port when available. Those farmers who headload their produce to town and who have no particular Lebanese or Liberian shop in mind immediately become the object of a "hard sell" by the Lebanese. Hawkers yell from doorsteps from all directions at the travel-weary farmer, who may well have just completed a three-day walk. The scene is reminiscent of what one imagines was the case of the gold miner in the American West coming to town immediately after striking it rich and being besieged by hordes of gamblers, prostitutes, and others eager to part him from his money.

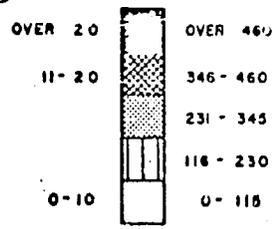
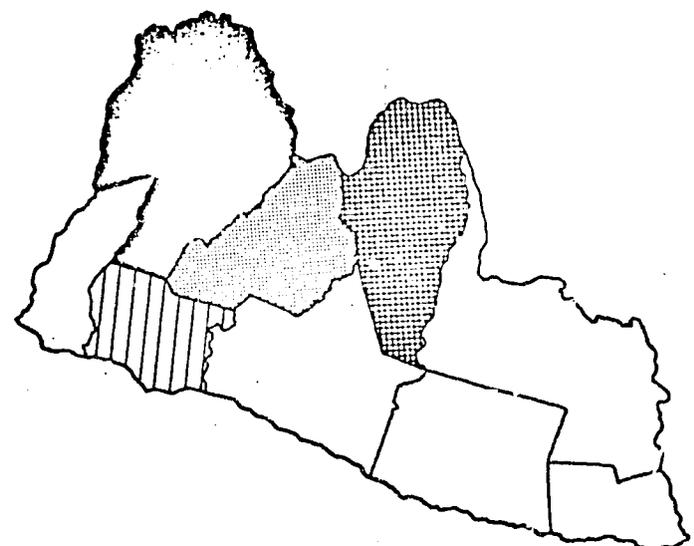
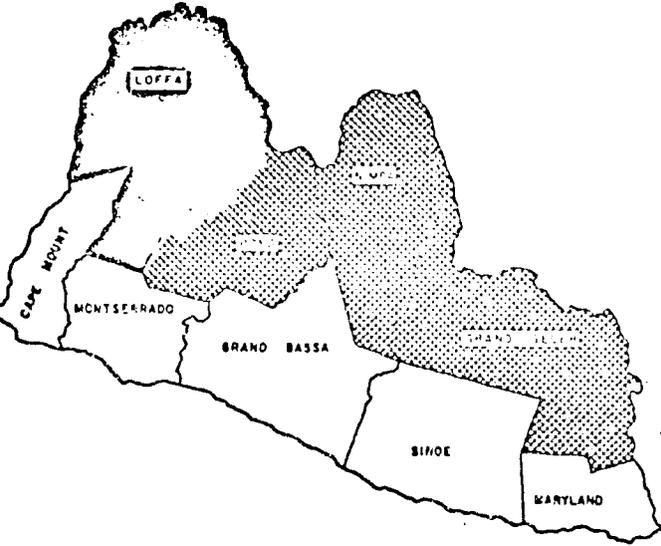
In conclusion, it is worth noting that in spite of the fact that many Lebanese in Liberia are condemned socially and often politically for real or imagined unsavory business practices, one cannot dispute the fact that their role in the agricultural marketing process is a very important one. Figures 5 and 6 represent two patterns representative of coffee and palm kernel collections throughout the country. Not only is there a relationship between these collections and the distribution and density of Lebanese stores (Figure 4) but there is also the implicit realization that collections of this magnitude could scarcely have been attained without their presence. No other mechanism has been or is available for the collecting of crops on this scale. Even the Liberian Produce Marketing Corporation, with the exception of one combined coffee mill and coffee purchase center near Voinjama, has found it necessary to rely upon the Lebanese traders for the bulk of the produce exported through their facilities. Long before the LPMC was established to facilitate marketing of crops for export and to insure equitable prices to the farmer, the Lebanese were providing the only marketing system in much of the country. Without their purchase of, or bartering for, crops, it is unlikely that Liberia would have had any appreciable exports of coffee, cacao, and palm kernels. Operating in remote areas, often with little or no competition, it was only natural that they would work towards receiving the maximum profit. It should be remembered, however, that their profits to a large extent^{no} depended

COFFEE AND PALM KERNEL COLLECTIONS 1964

(COUNTY AS THE RECORDING UNIT; 1962 CENSUS OF POPULATION)

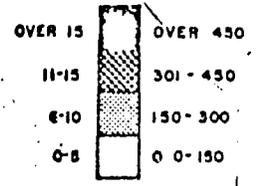
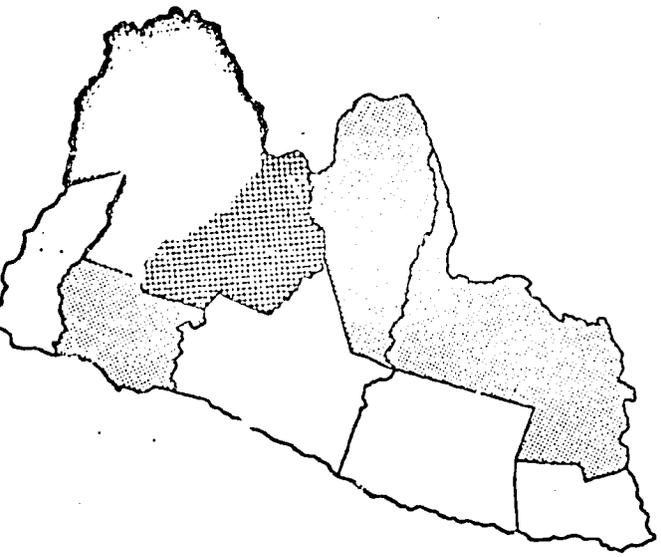
COFFEE
POUNDS PER PERSON

COFFEE
POUNDS PER SQ. MILE



PALM KERNELS
POUNDS PER PERSON

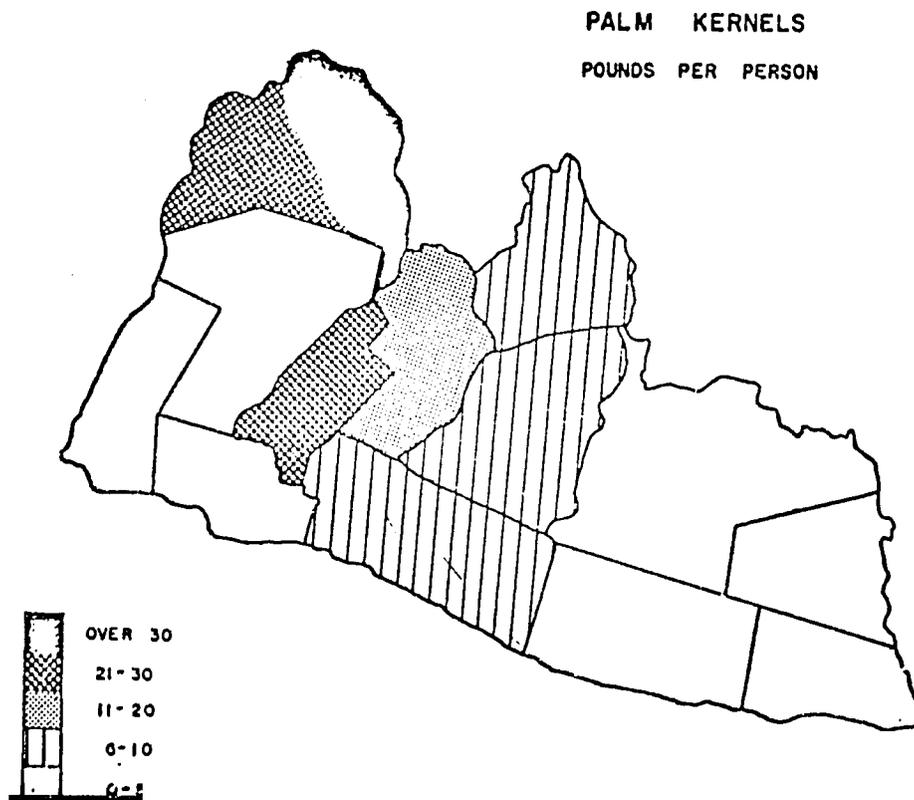
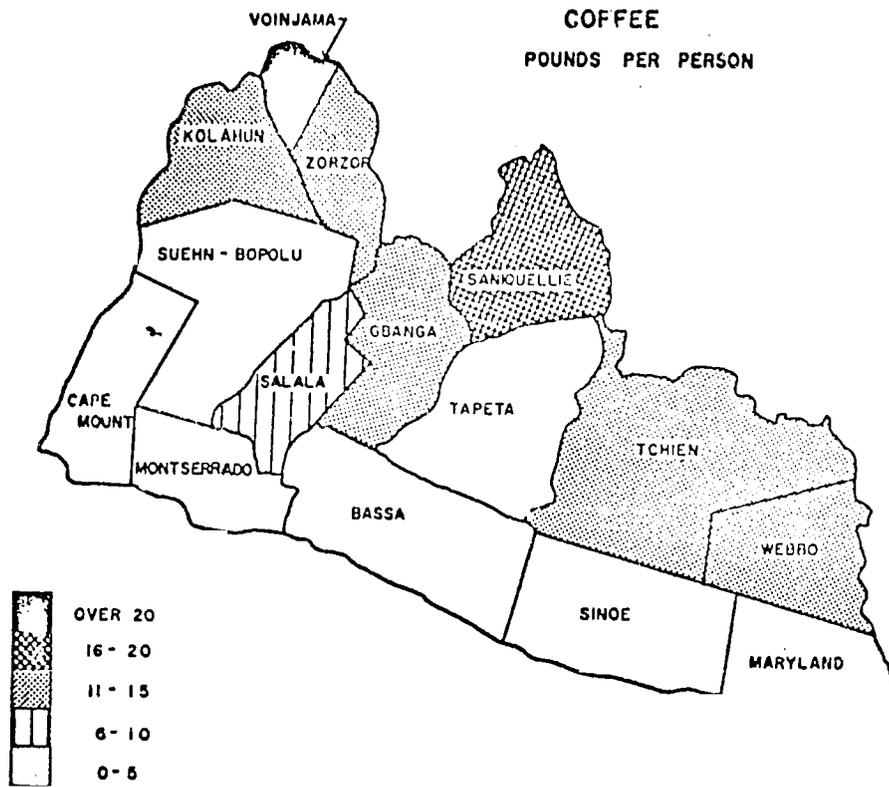
PALM KERNELS
POUNDS PER SQ. MILE



COFFEE AND PALM KERNEL COLLECTIONS

1964

PRE 1963 POLITICAL SUBDIVISIONS AS THE RECORDING UNIT; 1962 CENSUS OF POPULATION



in acquiring agricultural commodities and if their bids were too low
Liberian farmer would choose not to sell. In such a situation, the
farmer, knowing that his efforts would not be rewarded to any appreciable
extent, would probably fail to harvest subsequent crops, and the lack of
commodity would be felt for some time. The marketing mechanism then
indeed a two-way proposition.

21

Preliminary Note
on an
Agricultural
Innovation in
Mando Chiefdom,
Sierra Leone

Barry L. Isaac

Barry L. Isaac is an Assistant Professor, Department of Anthropology, University of Cincinnati, Cincinnati, Ohio. This article is a revised version of a paper read at the American Anthropological Association Meetings, New Orleans, November 22, 1969. The data on which the paper is based were collected in Mando Chiefdom, Sierra Leone, during January and February of 1968, as the author was completing another study in adjoining Upper Bambara Chiefdom. That study was financed by a Public Health Service grant and predoctoral fellowship. The author thanks Paramount Chief K. S. Comber of Mando Chiefdom and Peace Corps Volunteers William Todd and Thomas Ireland for their assistance while the data for the present article were being gathered.

Abstract

This article describes a swamp rice development scheme initiated in Mando Chiefdom, Sierra Leone, in 1965. Mando Chiefdom traditionally is an upland rice area, and the swamp rice program met only slight acceptance during its first two years; by the end of 1967, however, participation in the program had increased greatly. Several reasons for this increasing acceptance of the program are discussed. The article offers corroboration of the findings of researchers elsewhere in the world with regard to initial exceptional innovativeness of the wealthy stratum, initial "middle class conservatism," and the "dramatic comeback" of the middle stratum in the second stage of the adoption process, when risk is lower.

Une note préliminaire sur une innovation agricole dans la chefferie Mando en Sierra Leone

Cette article décrit un plan pour le développement de riz des marais commencé dans la chefferie Mando en Sierra Leone en 1965. Par tradition, la chefferie Mando est une région de riz des montagnes et le program du riz des marais a eu un accueil limité pendant les deux premières années de l'expérience; cependant, à la fin de 1967 la participation dans le program avait eu une augmentation considérable. Quelques raisons pour l'accueil de plus en plus favorable du program sont discutées dans cette étude. L'article confirme les conclusions d'autres chercheurs ailleurs dans le monde concernant le fait que la classe riche est extrêmement innovatrice au début, que la classe moyenne (la bourgeoisie) est conservatrice au début, mais que la bourgeoisie fait un retour dramatique dans la deuxième étape de procédé de l'adoption quand les risques sont moins prononcés.

Nota preliminar de una innovación agrícola en "Mando Chiefdom, Sierra Leone"

Este artículo describe un proyecto para el desarrollo de la cosecha de arroz en los pantanos iniciado en Mando Chiefdom, Sierra Leone en 1965. Mando Chiefdom es tradicionalmente una región arrocería elevada, y el programa de los pantanos fué aceptado solo parcialmente durante los dos primeros años; para fines de 1967, sin embargo, la participación en el programa había aumentado grandemente. Se discuten varias razones que explican la creciente aceptación del programa. El artículo presenta confirmación de los resultados de investigaciones en otras partes del mundo con respecto a la innovación inicial excepcional en la clasacaudalada, el "conservadurismo inicial de la clase media," y el "éxito dramático" de la clase media en la segunda etapa del proceso de adopción, cuando el riesgo es menos.

15

THIS ARTICLE DISCUSSES an apparently successful swamp rice development scheme in Mando Chiefdom, Sierra Leone. The scheme is part of the effort of the Sierra Leone Government to make the country self-sufficient in the production of rice by 1970. Sierra Leone was a modest exporter of rice from 1931 to 1954, but since then the country has been a consistent importer of this staple food.¹ Imports have soared during the past fifteen years, partly because land that once was devoted to upland rice production has been planted to commercial tree crops and partly because the country's diamond boom raised the demand for rice while reducing its domestic production by drawing young men away from farming pursuits.² The emphasis in the drive for self-sufficiency is, hence, on the development of swamps, rather than uplands, and on the introduction of new, high-yielding varieties of rice.³ The West African Research Station at Rokupr has developed several new varieties of swamp rice during the past two decades. The Station's presently recommended variety is "Radin China 4" which, under ideal conditions, will yield up to 4,000 pounds per acre twice a year,⁴ as compared with the estimated one-half metric ton per acre yield of native varieties of inland paddy rice.⁵ These improved varieties have not spread very widely in the country, at least partly because of a lack of concentrated agricultural extension work.⁶

The Mando Chiefdom swamp rice scheme provided not only agricultural extension services, but also financial assistance to those who wished to participate. The program was administered by a Peace Corps Volunteer who was well-liked in the community and whose flexibility allowed individual farmers to adjust their degree of participation in accordance with their own needs. These factors contributed to the apparently successful introduction of Radin China 4 in Mando Chiefdom, as did the agreeable taste of this variety of rice.

Growth of the Mando Chiefdom Program

Mando is one of the fourteen chiefdoms of Kailahun District, Eastern Province. Mando occupies 110 square miles and has a population of 9,162 (4,366 males and 4,796 females). Mobai, the headquarters of the Chiefdom, has a population of 1,656 (833 males and 823 females).⁷ In the town as well as in the smaller, outlying villages, nearly all of the women farm; so do most of the men, even if they have other occupations (e.g. carpenter, tailor, teacher, hunter, etc.). The production of rice, the staple food of the region, has fallen drastically since the introduction of

coffee and cocoa in the 1920's and 1930's. Although the introduction of these tree crops was initially resisted in the region,⁸ farmers later accepted this cash-cropping activity enthusiastically, increasingly planting tree crops on land that otherwise would have been sown to upland rice. Domestic rice production fell gradually to the point at which few farmers now produce enough of this staple to supply their own households during the entire year. Since rice is considered an essential ingredient of every meal, most farmers are dependent during part of the year on purchasing imported Burma rice, the only type available in local market places and government rice agencies, even though they regard it as greatly inferior to their native variety.

While most farmers are committed to cash-cropping, most of them realize relatively small cash incomes. Although I did not collect data on farming income in Mando Chiefdom, I have no reason to believe that the income profile for that chiefdom would differ from the one for adjoining Upper Bambara Chiefdom. A sample of 133 farmers in Upper Bambara revealed that only 3.01 percent had a farming income of Le 100.00 or above (Le 1.00 = U.S. \$1.20) in 1967; 12.79 percent had a farming income of Le 50.00 or above that year, while 42.02 percent had an income of less than Le 10.00 in 1967.⁹ Hence, the purchase of even one bag of imported rice at the government controlled price of Le 10.15 per hundredweight (1967 price) during the year is a heavy expenditure for most farmers. Although this situation may have predisposed the region toward acceptance of a new, high-yield variety of swamp rice, farmers did not spontaneously adopt Radin China 4.

Radin China 4 was introduced in Mando Chiefdom in 1965, when an Agricultural Officer from neighboring Kenema District persuaded the Town Chief of Mobai to cultivate an experimental plot of this new variety. In 1966, Mando Chiefdom was allocated a Peace Corps Volunteer who was trained in surveying. This Volunteer secured a small government grant for the purchase of Radin China 4 seed and fertilizer, and he offered his services as surveyor to those who wished to clear and dike swamps. Four people, including the Town Chief, planted Radin China 4 that year. The introduction of this variety was greatly facilitated in 1967, when the Diamond Corporation of West Africa (DICOR-WAF) contributed Le 4,000.00 to the Ministry of Agriculture and Natural Resources for a "do-it-yourself pilot project to encourage rice farmers." The Joint Manager and Director of DICOR-WAF announced that if the project were a success, "it could lead to a reduction in the tonnage of imported rice,

which in turn would effect...a saving in foreign exchange [and] a cash economy based on swamp rice production....in the villages...."¹⁰ The plan specified that each participating farmer would be paid Le 7.00 for having cleared one acre of virgin swamp and another Le 7.00 when he had "correctly planted" that area. Seed and fertilizer were to be purchased from the Ministry of Agriculture and Natural Resources at the cost of Le 2.10 per acre; this amount was to be subtracted from the total of Le 14.00 per acre available to the farmer. While each participant was expected to clear and plant at least one acre, the maximum area for which assistance would be given was two acres.

Mando Chiefdom's share of the DICOR-WAF grant was Le 518.00 (thirty-seven one-acre allotments at Le 14.00 each). When this money became available, the Paramount Chief called a town meeting in Mobai, at which the resident Peace Corps Volunteer explained the program and encouraged participation. Fourteen men and three women eventually agreed to participate. The three women were widows with no independent means of support. Two of the fourteen men participated through their wives, that is, without actually doing the labor themselves, but retained control over the extent of participation and the disposal of the proceeds.

Because not all of the participants would agree to plant an entire acre, while others wanted to plant more than two acres, the Peace Corps Volunteer allowed those who wanted to plant more than the maximum to do so, giving them the full amount of aid for additional acres, in order to achieve the goal of thirty-seven acres of developed swamp. Furthermore, he modified the manner in which the aid was to be given to the participating farmers. Instead of giving Le 7.00 to a participant when an acre was cleared and another Le 7.00 (minus the cost of seed and fertilizer) when the acre was planted, he utilized the grant money to employ a permanent crew of seven men to do the tasks of clearing and diking. Only in the few cases in which the costs of seed, fertilizer, and labor amounted to less than Le 14.00 did farmers receive direct cash assistance; in most cases, in fact, the sum of Le 14.00 was inadequate to meet all these costs, and the participants had to supplement their grants. As will be seen later, these innovations in the administration of the funds on the part of the Peace Corps Volunteer may have been very instrumental to the (apparent) success of the program.

I qualify my remarks about the success of the program with the word "apparent" because the pro-

gram was only in its fourth year when I left the area, and I cannot be absolutely certain that it will be an overwhelming success in the long run. Nevertheless, its chances appeared very good at the beginning of its fourth year. Participation had increased from one individual in 1965 and four in 1966, to twenty-one in 1967. Furthermore, all of the 1967 participants were eager to participate again in 1968, even though some of them had not achieved the yields that they had hoped for. Most participants had, in fact, achieved good results, and three of them had produced a surplus for sale, which they marketed for Le 7.50, Le 25.00, and Le 72.00, respectively. By the beginning of 1968, local enthusiasm had reached the point at which the Peace Corps Volunteer feared that he would be overwhelmed with applications and that his funds would be inadequate to assist all who wanted to join the program.

The Participants

The sole participant in 1965 was the Town Chief of Mobai, who planted a one-acre plot that year. He participated again in 1966, as did a salaried civil servant and two farmers. The common characteristic of these four participants was their relatively high incomes. The civil servant, of course, enjoyed a regular salary. The Town Chief as well as the two participants whose only occupation was farming all had incomes of above Le 50.00 in 1967, which would place them in the upper 12 percent or so of the farming income profile.

The four who participated in 1966 did so again in 1967. They were joined by another seventeen participants (fourteen men and three women). Only seven of these additional participants lived in the town of Mobai; nine of the other ten were residents of four other towns in the chiefdom and the remaining participant resided in the headquarters of adjoining Dia Chiefdom.

The seven new participants from Mobai were the Imam of the local mosque, the Paramount Chief, two male farmers whose incomes put them in the lower quartile of the farming population, and three widows who were largely dependent on their respective extended families for their livelihood. In other words, incoming participants from Mobai in 1967 comprised two individuals from the top of the socioeconomic continuum and five from the bottom of it. It was largely because of his inability to enlist the participation of the middle stratum that the Peace Corps Volunteer began recruiting in neighboring towns.

The participants recruited by the Volunteer in the other towns (Baïma, Baiwala, Kuiva, Niagorehun, and

Yoya) comprised a Town Chief, a Section Chief, an Alhaji, a prosperous carpenter, two civil servants, three school teachers, and a farmer whose income put him in the upper three percent of the farming population. In short, these ten out-of-town participants had much in common with the original participants in Mobai; all were in the upper reaches of the socioeconomic continuum.

Although the sample is too small to justify a definitive statement, the Mando Chiefdom data do seem to corroborate Cancian's conclusions about the relationship between wealth and the adoption of agricultural innovations.¹¹ Comparing his material from Zinacatan, Mexico, with colleagues' data from Japan and the United States (Iowa, Kentucky, North Carolina, and Wisconsin), Cancian postulates that during the initial stage of the adoption of agricultural innovations, persons in the highest quartile of a society in terms of wealth will be exceptionally innovative, while those in the lowest quartiles will be exceptionally conservative. Persons in the "High Middle" rank will also tend to be conservative, supporting the common idea of "middle-class conservatism."

In partial explanation of these findings as they relate to Mando Chiefdom, the high-ranking people tend to be wealthy not only in terms of money; but also in terms of their ability to mobilize labor. The 16 male participants from 1967 on whom I was able to get accurate information concerning household size were heads of relatively large households (mean = 16.68, median = 11, and mode = 11 persons). I have no information on one of the two remaining cases. With regard to the other, I know that his household contains more than eleven persons, although I am unable to specify the exact number. Average household size in this region, as calculated from census information gathered in eight farming villages and one Section Town in adjoining Upper Bambara Chiefdom is as follows: mean = 5.86, median = 5.0, and mode = 6.0 persons per household.

The middle-range people, in contrast, tend to lack both a large household labor force *and* the money to employ it. Thus, for them to have participated in the new program would have required their reducing or abandoning the farms they ordinarily tended; in short, they would have had to risk their livelihood on an unproven program. Once the program has proven to be successful, it is possible that the middle rank will then participate in it. In fact, it was my impression from conversations with the Peace Corps Volunteer that those who had expressed a desire to participate during the fourth year included a number of individuals from the middle range of the socioeconomic continuum. If

this impression is correct, it provides another instance of the "dramatic comeback" of the middle stratum in the second stage of the adoption process, when risk is lower.¹²

It was noted that the poor did not participate in the program during the first two years of operation in Mobai nor during its initial year in the other settlements. Generally speaking, it seems reasonable to assume that "the poor are so poor that any risk threatens total economic extinction and, therefore, they are unusually conservative."¹³ Nevertheless, five poor people did participate in the Mobai program in 1967, when the risk was still relatively high. As I mentioned earlier, two of the seven recruits from Mobai that year were very poor male farmers, while three others were widows whose financial position was precarious. A possible explanation of the participation of these poor people in 1967 is that the two very poor male farmers were neighbors and good friends (perhaps also kinsmen) of one of the prosperous farmers who had participated in the program in 1966. Further, one of the widows who participated in 1967 was a neighbor and good friend of the Peace Corps Volunteer and was convinced by him to try her luck; perhaps her example encouraged the other two widows to participate, also.

Thus, even though it seems that the most likely candidates for participation in new agricultural programs in this area are individuals at the top of the socioeconomic continuum, those at the bottom should not be ignored. The most likely recruits in the latter category may well be those whose wealthier kinsmen or neighbors have already participated successfully in the program.

Discussion and Conclusion

To explain the characteristics of those who participated in the program is not, of course, to explain why the program was accepted at all. I shall now suggest some possible reasons why the Mando Chiefdom scheme was able to attract and hold a steadily increasing number of participants.

First, the Radin China 4 variety of rice is the product of several years' careful research, during which the strain was tested not only for field viability but also for taste. All of the participants in the Mando Chiefdom program in 1967 reported that the taste and texture of Radin China 4 is as good as, or better than, the taste and texture of their traditional varieties of both swamp and upland rice. Several also stressed that Radin China 4 preserves its flavor and texture after cooking to a much greater extent than does their

native rice; this reduces the women's work, because with Radin China 4 a woman can prepare the morning meal the night before, at the same time that she is preparing the evening meal, and then simply reheat it in the morning. Thus, careful research helped to avoid a problem that has plagued several other development schemes—namely, the problem of taste preferences.¹⁴

Second, the program's provision of technical and labor assistance, coupled with financial assistance, encouraged participation. Only four of the 1967 participants said that they would have participated that year if they had received advice and surveying services without a grant for the purchase of seed rice and fertilizer or assistance with the labor involved; one of these four qualified his statement by saying that although he would have participated under those conditions, he would have planted a much smaller plot than he did.

Third, the modifications of allotment policy on the part of the Peace Corpsman who administered the scheme locally introduced an element of flexibility that almost certainly encouraged participation. Instead of insisting that each farmer plant a minimum of one acre but no more than two acres of Radin China 4, the Corpsman allowed participants to develop as little as one-half acre or as much as several acres. Thus, farmers could adjust their degree of participation in the program in accordance with their capabilities and aspirations and with the conflicting claims on their time and labor. An insistence on an arbitrary allotment might well have discouraged farmers from participating, as it did in the case of a development scheme in Bornu Province of Northern Nigeria.¹⁵

Fourth, the Peace Corpsman's popularity in the Chiefdom undoubtedly contributed to his ability to enlist participation in the program. He maintained cordial relations with all sectors of the community and was seldom too busy to engage in friendly conversation or to enjoy a drink of palm wine. The fact that he developed considerable fluency in Mende, the principal language of the region, contributed to his popularity as well as to his ability to communicate with farmers, most of whom do not know English, which is the official language of the country. Furthermore, the fact that the Peace Corpsman was not part of the governmental bureaucracy may have helped overcome the type of local suspicions summed up by one influential man who participated in the program for the first time in 1967: "My people and I were very hesitant about participating at first, because we wondered, 'If Government is doing all this for us, then what is Government going to expect from us in return?'"¹⁶

Finally, the swamp rice program provides an instance in which the "felt needs" of the national planners coincided with the "felt needs" of the target group—a conjunction of interest too frequently absent in development programs.¹⁷ As I noted previously, upland rice farming has declined markedly since the introduction and widespread acceptance of cash-cropping activities in this region. As a result, most farmers at present must purchase Burma rice, which is relatively expensive and which they regard as greatly inferior to their native rice, during part of the year. Thus, the region was "ripe," so to speak, for the introduction of a promising variety of swamp rice.

NOTES AND REFERENCES

1. See H. R. Jarrett, "Rice Production in Sierra Leone," *Malayan Journal of Tropical Geography*, Vol. 8, June 1956, pp. 73-81; H. D. Jordan, "Rice in the Economy of Sierra Leone," *World Crops* Vol. 17, No. 4, December 1965, pp. 68-74; Ralph G. Saylor, *The Economic System of Sierra Leone*, Duke University Press, Durham, N. C., 1967, pp. 75-85.
2. B. L. Isaac, *Traders in Pendembu, Sierra Leone: A Case Study in Entrepreneurship*, unpublished doctoral dissertation in the Department of Anthropology, University of Oregon, 1969, p. 42; Jordan, *op. cit.*, pp. 69-70; H. L. van der Laan, *The Sierra Leone Diamonds: An Economic Study Covering the Years 1952-1961*, Oxford University Press, London, 1965, pp. 169 ff.
3. Jordan, *op. cit.*, p. 71; Saylor, *op. cit.*, pp. 75 ff.; K. Swindell and D. U. Hewapathirane, "Rice," in J. I. Clarke (ed.), *Sierra Leone in Maps*, University of London Press, London, 1966, pp. 76-77.
4. Michael Stephens, "Economic Aspects of the Development of Rice Farming," unpublished paper read at the First Conference of the School of Development Studies, Njala University College, Njala, Sierra Leone, November, 1966.
5. Jordan, *op. cit.*, p. 68; Saylor, *op. cit.*, p. 39.
6. Jordan, *op. cit.*, p. 70.
7. 1963 Population Census of Sierra Leone, Central Statistics Office, Freetown, 1965, Vol. 1, Tables 3 and 6, pp. 4 and 17, respectively.
8. See Isaac, *op. cit.*, pp. 46-48.
9. *Ibid.*, p. 75.
10. "DICOR Le 4,000 'Do It Yourself' Rice Project," *Daily Mail* (newspaper), Freetown, Sierra Leone, January 5, 1967, p. 1.
11. Frank Cancian, "Stratification and Risk Taking: A Theory Tested on Agricultural Innovation," *American Sociological Review*, Vol. 32, No. 6, December 1967, pp. 912-27.
12. *Ibid.*, pp. 926-27.
13. *Ibid.*, p. 916.
14. See, for example, Charles Erasmus, *Man Takes Control: Cultural Development and American Aid*, University of Minneapolis, 1961, p. 61; George Foster, *Peasant and*

- Cultures: And the Impact of Technological Change*, Harper and Brothers, New York, 1962, pp. 76, 151; Maryia Mirale, *Maize in Tropical Africa*, University of Wisconsin Press, Madison, 1966, p. 232; A. K. Sengupta, "Innovations in Agriculture: Problems of Acceptance," *Kurukshetra* (India), Vol. 14, No. 10, July 1966, pp. 8-10.
15. Ronald Cohen, "The Success that Failed: An Experiment in Culture Change in Africa," *Anthropologica* (n.s.), Vol. 3, No. 1, 1961, p. 34.
16. Cf. W. E. Sibley, "Social Organization, Economy, and Directed Change in Two Philippine Barrios," *Human Organization*, Vol. 28, No. 2, Summer 1969, p. 153.
17. Erasmus, *op. cit.*, pp. 311-26; see also his "Community Development and the Encogido Syndrome," *Human Organization*, Vol. 27, No. 1, Spring 1969, p. 65.