

PD-AAA-345

6690A2001701

I M P A C T S T U D Y

UPPER LOFA COUNTY RURAL DEVELOPMENT

669-0142

LOAN : \$5,000,000
DURATION : November 1975-June 1981
INITIAL FUNDING: FY 1977

MONROVIA

MAY 1980

EXECUTIVE SUMMARY

1. The Lofa County Agricultural Development project is jointly funded by the Government of Liberia (\$6 million), The World Bank (\$6 million, IDA loan) and USAID (\$5 million loan). The project is currently in its final year of implementation. It is expected that the project, which at present limits its activities to Upper Lofa County, will be expanded during Phase II to include all of Lofa County. As a result of this project 8,000 small farm families are receiving assistance in developing and improving rice, coffee and cocoa through a mix of agricultural inputs; feeder roads, farm credit, seed, fertilizer, nurseries, extension services, well construction, cooperatives, and a schistosomiasis control unit.

2. Project accomplishments thus far have been generally positive and the demonstration effect of project farmers on non-project farmers is such that non-project farmers are clamoring to be included and are imitating project farmers' techniques, especially in swamp rice cultivation. The latter has been the most successful element of the project thus far with production acreage already 258 percent of targets after the fourth year of operation. Partly as a result of the success of swamp rice, upland rice production has fallen short of appraisal targets as farmers are shifting from upland to higher yielding swamp rice, especially in high population density areas. Coffee and cocoa production is generally on target, but rehabilitation of existing trees had to be abandoned for a variety of reasons. First crops of new coffee and cocoa are expected to be harvested in 1980. The road construction program to be carried out by the Ministry of Public Works is lagging behind as a result of operating problems and a temporary (1978/79) diversion of equipment and personnel to Monrovia to help complete projects associated with the 1979 OAU Heads of State Conference. The project's own road construction program, on the other hand, has been very successful. It was set up to carry out maintenance only, but since 1978 it has actively become involved in road and bridge construction as well. The well digging program has also been very successful and targets were already exceeded in 1979, two years before end-of-project. The schistosomiasis control unit has been able to keep snail infestation under control and reports of the disease have been very few. Finally, the cooperatives development and agricultural credit portions of the project have run into some difficulties, largely due to poor management of the cooperatives which serve as conduits of loan funds and repayments.

4. The economic impact thus far has been considerable; farmers are earning more, there is a higher level of economic activity and demand for labor is up. However, it has had some inflationary effect as a result, as more dollars are chasing a limited number of goods and services. Social impact too has generally been positive, especially through the effects of extension agents and the success of developing town cooperative units (TCUs or "mini-coops" more closely related to traditional socio-economic organizations). There is a greater sense of participation on the part of small farmers, although this effect is not yet apparent in the larger coops. Technical impact, in terms of transfer of technology, has been impressive and the demonstration effects on non-project farmers have been surprisingly good.

5. The LCADP and its relative success within a short period of time has boosted GOL's agricultural development efforts in other parts of Liberia (Bong and Nimba Counties ADPs and a proposed three-county ADP in southeastern Liberia) and has more firmly established the policy that economic diversification into cash crop and food production are both necessary and feasible. Such diversification has been found preferable to sole reliance on rubber, iron ore and timber exports as a vehicle for economic growth and development.

Lofa County Rural Development

I. Introduction

The project area is located in the northern part of Lofa County in northeastern Liberia. The area is bordered by Sierra Leone to the west and the Republic of Guinea to the north and east; the southern limit is the borderline of the high rain forest that stretches far to the south, covering the largest part of Liberia. Southeast of the Lofa County administrative headquarter town of Voinjama, separated by an 18 mile wide mountain range, lies another part of the project area of which Zorzor is the most important town. Eleven clans of the Kissi, Mendé, Gbandi and Lorma tribes (approximately 105,000 persons) live in the project area, where population density is about 57 per square mile. Assuming that farm population is 75 percent and each farm holding, on average, consists of 5 persons, the current number of farm holdings is 15,750.

Three major rivers (Makona, Zeliba and Lofa) drain the project area in a southwestern direction; the watersheds of these rivers are intersected with numerous perennial and ephemeral streams. The bottomlands of these streams, either permanently or temporarily waterlogged, form swamps. Water levels for purposes of irrigation are not generally known. Water for rice-growing in swamps during the rainy season is assured, but during the dry season the swamps rely on direct run-offs from the catchment areas, which occurs after a time lag upon cessation of the rains. This water level can decrease to practically zero from January through April. Increasing intensity of shifting cultivation and shorter fallow periods tend to increase the water run-off rate, making less water available for shorter periods for purposes of swamp rice cultivation (it is estimated that one acre of double-cropped rice needs at least 5 acres of well preserved watershed). With continuing clearing of forest land for shifting cultivation less land tends to be available for double-cropping of rice. Since it is impractical to forbid shifting cultivation in the watershed areas of swamps, the only way to preserve forest land and maintain a reliable water supply is to introduce a more permanent cropping system whereby irrigated swamp rice and upland tree crop growing play a key role.

The project area is located on an average altitude of 1,650 ft. above sea level and consists of dissected laterite plateaus with low rounded hills and valley bottoms with alluvial soils. Also, high hills exceeding 2,600 ft.,

frequently occur as steep pointed hills under a thick forest or as rounded monorecks. A small part of the project area is occupied by mountains belonging to the lower part of the Wolocisi Range. For agricultural purposes, the laterite plateau is of primary importance. The valley bottoms generally consist of deep soils with a light sandy loam topsoil. Drainage conditions vary from moderately good to very poor, with a high water-holding capacity and a moderate to low fertility. These soils are very suitable for wet rice growing but in general not very good for coffee and cocoa. The project area has about 40,000 acres of valley bottoms of which 30,000 acres are suitable for mechanical cultivation methods.

2. Antecedents to the Project

In late 1969 the Ministry of Agriculture established the Foya Rice Project, in the Western Upper Lofa area, supported by UNDP/FAO, USAID, Peace Corps and the Taiwan Agricultural Mission. Its objectives were to introduce modern methods of rice cultivation and to increase income earning capacities in the Kissi Chiefdom through study and demonstration of different methods of land development, land preparation and other cultivation practices, including rotation of crops; and to find the most suitable and economic methods of rice cultivation under controlled conditions. This involved opening up alluvial bottomlands for development where traditionally they were only partly and irregularly cropped with traditional rain-fed rice and sugar cane. This project considerably increased the economic activity level in the area and provided the principal economic base for the development of the community. Rapid economic growth and development encouraged the Government and external donors to concentrate a diverse series of activities in the area as a model for neighboring areas and for Lofa County. Soon Foya became the Liberian prototype for growth centers stimulated by a variety of inputs.

At that time, the establishment of "integrated rural development" programs and their coherent implementation was very much of a novelty in Liberia and the Ministry of Planning and Economic Affairs (MPEA) was still in the process of formulating an integrated rural development policy. Taking into account the implications of such a new approach, GOL decided to start implementing the evolving concepts in one selected region of the country which was already showing signs of receptivity to change.

The area selected was Upper Lofa County. The choice was partially prompted by the relative success of the Foya prototype and partly because the Liberian Iron and Steel Company (LISCO)

planned to open up a new iron mine in the immediate neighborhood of the area, at Wologisi. LISCO was aware of its possible impact and dependency syndrome on the region concerned, was interested in wholesome regional development and had expressed a willingness to cooperate in a study for the preparation of an adequate development program for the region. (Note: the proposed investment by LISCO never materialized, however.) The study was an interministerial effort and was funded by USAID and LISCO. UNFFA funds were provided in advance of a population census for demographic studies in the area. Principal responsibility for the study was assumed by the Deputy Minister of MPEA, assisted by a UN Senior Economic Advisor.

As work continued, the approach was revised and modified in a MPEA paper "Regional Development Policy and Tentative Programme of Work" dated August 1972. In describing GOL's new integrated rural development policy strategy, the paper distinguished two aspects: (a) the mutual reinforcement of inter-related sector programs oriented to the nation's natural and human resources and (b) the translation of national objectives into regional components in order to involve the whole of the nation in the development process -- a concept generated by the new Tolbert Administration. It was found that rural development is more than agricultural development, despite the fact that 75 percent of the population is engaged in agriculture. Moreover, the development of the rural area was thought to be not only a function in itself but to be also influenced by development of geographical growth poles, both inside the region and outside.

MPEA then suggested that this approach required the incorporation of agricultural development, building up economies of scale (if available) and of functional urban centers within the geographical framework of socio-economic regional entities, composing parts of the nationwide pattern. Regional strategy in Liberia, thus implied an integrated multi-disciplinary approach based on functional linkages between sectors of economic and social life.

Based on these assumptions, MPEA advocated an experimental approach and an action program paralleling the ongoing research program. A small-scale program of integrated rural development was recommended in a limited geographical area, as a forerunner of broader regional schemes, to demonstrate on a reduced scale, the specific technical and organizational issues inherent in executing any multiple-objective rural development plan. The area suggested was

the Kissi Chierdom of Upper Lofa, Kolahun District, centered at Foya, where a number of special projects had already been launched but were still in the initial stages.

A set of prerequisites for implementing a "package" program indicated that it was a well-defined administrative subdivision, development activities existed in irrigated rice, tree crops and cooperatives; the bulk of the population were of the Kissi tribe, known as economically active and responsive to innovation; and the Paramount Chief had shown a willingness to use his status and influence to promote development activities. Together with ongoing special projects, the reinforcing and activating of conventional public services (extension, credit, rural roads, health, education) were to be taken up.

At the same time, under an IDA agricultural loan, an Investment Proposal for Integrated Agricultural Development in the Upper Region of Lofa County was prepared by a subcontractor. The proposal recommended a five year project which would cover an area of 1,550 square miles in Upper Lofa, including approximately 5,200 families, headquartered at Foya. The initial project area was to be later enlarged to include an "extended project area" towards Voinjama, the County capital. Activities were to cover certain farm innovations (production of swamp and upland rice, coffee, cocoa and oil palm) and certain farm support measures (extension services and training, seed multiplication, input supply, farm credit and marketing, rehabilitation and construction of farm to market roads, construction of six new community schools and a schistosomiasis surveillance service).

According to the investment proposal, the project would be designed to improve the rural living standard by providing increased income through higher production and by improving the quality of life through social services such as health and education. The IDA subcontractor under the loan made valuable use of materials collected by the USAID/LISCO/MPEA study of the Foya area.

The current Lofa County Agricultural Development Project (LCADP) adopted many of the objectives and a considerable portion of the organizational design of the initial IDA investment Proposal of 1974, although it was decided that the project should initially be focussed on Voinjama rather than Foya (see following section).

3. The Project

A. General Description

In 1974 the GOL requested IDA and USAID financial assistance for a rural development project in Lofa County. The project was identified by GOL and prepared by German consultants Agrar und Hydrotechnik (AHT) under the first Liberia IDA Agriculture Development Technical Assistance Project (306-LDR). The IDA appraisal mission visited Liberia in January 1975 and included a USAID consultant.

Prior to the start-up of the project, Upper Lofa County showed the following baseline data:

road mileage	- 100 miles primary, 310 miles feeder roads
swamp rice	- 1,606 acres
upland rice	- 18,032 acres
coffee	- 11,387 acres
cocoa	- 7,413 acres
oil palm	- 1,230 acres

The project which is being carried out over a five year period, 1977-1981, involves the following elements:

Road Construction - Construction of up to 62 miles of new roads and rehabilitation of up to 310 miles of existing roads by MPW (under the IBRD second highway loan with USAID technical assistance); in addition, the project would finance and operate a small road maintenance program.

Farm and Crop Development - Provision of development and seasonal credit, through a revolving credit fund, to develop and improve production of:

upland rice-improvement	13,838 acres
swamp rice - rehabilitation	1,236 acres
swamp rice - new	<u>3,459 acres</u>
Total rice	18,533 acres
Coffee - rehabilitation	1,236 acres
Coffee - new	<u>5,683 acres</u>
Coffee total	6,919 acres

Cocoa - rehabilitation	1,977 acres
Cocoa - new	<u>3,707 acres</u>
Cocoa total	5,684 acres

Yields

Upland rice-improvement	892/lbs/acre	1515/lbs/acre
Rainfed swamp rice	1337/lbs/acre	3120/lbs/acre
Irrigated swamp rice	3209/lbs/acre	6420/lbs/acre
Coffee-rehabilitated (after 5 years)	250/lbs/acre	625/lbs/acre
Coffee-new (after 5 years)		892/lbs/acre

Staffing provision of technical and administrative staff with support facilities for project implementation.

Training - Construction and operation of a staff training and a farmer training center and dormitory facilities at the Agricultural Extension Training Center.

- Recruitment and training of Liberians for extension, cooperative/credit and project management.

- Training and upgrading of existing cooperative staffing and organization.

Social Services construction of 100 village wells; provision of a schistosomiasis surveillance unit.

Support Services financial assistance to establish a bank branch at Voinjama, provision of 20 person/months of various consultancy services.

B. Accomplishments to Date

Upland Rice: Production has fallen short of appraisal targets after four years. Some farmers are willing to use better methods and seeds but adequate quantities of seed are difficult to obtain, and a timely distribution to farmers when seed is obtained becomes difficult. Fewer than expected farmers are growing upland rice as a result of higher than expected responses to higher yielding swamp rice, especially in high population density areas (40-150 per square mile). As of mid 1979 upland rice development was 1,285 acres short of appraisal targets. Project data are readily available on

improved rice yields; these indicate that yields have improved as a result of farmer acceptance of higher yielding seed rice, new technology, and increased use of fertilizer.

Swamp Rice: Production in the project area has been very successful with production acreage 258 percent of the appraisal target. More and more swamps are being developed but the main constraint now is lack of access roads, since the road construction program undertaken by MPW has fallen behind.

Coffee: The rehabilitation program has been abandoned by the Project Management Unit after it was found to be impractical. This means that more new planting is required to meet overall targets. Part of the problem with new planting is that seeds are received late by nurseries; in addition the Liberian Produce Marketing Company (LPMC) has planted late and the farmers are reluctant to accept the small seedlings. The World Bank estimates that 65 percent of the project coffee is satisfactory in quality while the rest is rated poor. Sixty-three percent of coffee targets had been reached by mid 1979. The first new project coffee is expected to be harvested in 1980. No data are available on improved yields.

Cocoa: The PMU has also abandoned the cocoa rehabilitation program because the cocoa trees are in too poor a shape for rehabilitating. Currently cocoa planting is some 445 acres below appraisal targets although the PMU is confident that final targets will be met. The urgent need here too is for feeder roads.

Feeder Roads: The PMU reports that only 27 miles out of the projected total of 62 miles of new roads have been built, while less than 50 percent of the existing feeder roads have been rehabilitated. Maintenance is poor to non-existing. A recent rural roads impact study team found that rural roads generally are only fixed up when the Head of State visits a county. The reasons for the MPW's poor performance to date have been varied, ranging from equipment and personnel diversions to the Monrovia area in connection with the 1979 OAU Conference, lack of spares and fuel, to low personnel motivation as a result of long delays in salary receipts. The project's own road construction unit, however, has been very successful. It was set up to do maintenance but instead it has in addition embarked on road and bridge construction as well. Last year it helped build 55 miles of access roads with 36 small bridges and 41 culverts, based on village self-help efforts.

Staffing: After only 4 years of operation the project is managed and operated completely by Liberians. Project staff numbered 341 in late 1979. Project management is good; the project is adequately staffed and funded by GOL. Relations with the local administration are good and the project has an excellent reputation with the community. Accountability of the project has been good.

Evaluation: The role of the Project Evaluation Unit (PEU) thus far has been too formal and too structured. Some observers feel that the PEU should conduct more rapid, "quick-and-dirty" assessments and should provide more operational management information to the project implementation leadership.

Training: All training facilities have been completed and training programs continue to be undertaken. A total of 3,802 farmers have been trained as have 1,267 extension trainees. Almost 7,000 viewers have watched films on rice, coffee and cooperatives. Extension workers reportedly have good participatory relationships with farmers.

Social Services: The target of 100 wells to be constructed had already been reached in 1979; additional wells are being completed. Villagers are quite pleased with these facilities which have prompted other sanitation programs such as latrine construction; this has also become a project activity. The schistosomiasis surveillance unit (SSU) is performing satisfactorily.

Credit, Farm Inputs and Marketing: As of late 1979, five cooperatives were active in the project area as well as 200 Town Cooperative Units (TCU) with 4,250 members; \$715,000 in credit had been disbursed with an overall recovery rate of 85 percent. However, there are some management problems within the cooperatives, between the cooperatives and the PMU and the LPMC. This has caused a lack of timeliness, availability and adequacy of farm inputs, while there has been little adaptive testing. The cooperatives currently are not functioning properly, either as participatory organizations for farmers, or as organizations to provide adequate credit and other inputs and purchase output. The TCUs are partially effective and potentially more effective than the large cooperatives, as they are smaller and do not tend to be dominated by larger farmers or political interests.

At this point in time the cooperatives have not demonstrated that they will be self-sustaining in the near future. Their capacity to deliver inputs and effectively handle outputs is

limited; their leadership seems to lack political and administrative commitment, which in turn causes a lack of commitment to the cooperative concept on the part of the intended beneficiaries.

4. Impact

A. General

The overall impact of the LCADP thus far has been significant, although not always along the lines anticipated. One thing is certain: the project is helping to transform agriculture in Upper Lofa County from a marginal subsistence economy supplemented by poor-grade smallholder tree crops, to a more money-oriented economy with marketable surpluses. Rural and feeder roads are opening up lands for farming activities which had previously been too isolated. The success of the project to date may best be summed up by quoting one of the key informants:

"I would say from what I see in terms of economic activity around here (that) it can be safely stated that farmers are harvesting better grades of crops and (are) thereby making much more money now than ever before. They are being advised in the proper use of modern agricultural techniques, thereby ensuring greater yields for their products."

As further evidence of the project's positive impact and popularly perceived benefit, the project manager reports that "people outside the project area are clamoring to be included". According to key informants, the fact that the project has been limited to Upper Lofa County only, has even given rise to some disharmony among the people of Lofa as a result, as those outside the project area see the benefits accruing to those inside and want to share in those benefits themselves.

The real success story of the LCADP has been the phenomenal acceptance of swamp rice cultivation, especially in high population density areas. Both the World Bank and the Ministry of Agriculture have termed the swamp rice element of the project "very successful", with acreage planted vastly exceeding appraisal targets. Acceptance of better swamp rice cultivation techniques and improved varieties of seed, as well as the demonstration effect of multiple cropping, underly the success.

B. Economic Impact

In terms of acreage cultivated for all crops, the performance is 90 percent of target, with swamp rice performance far in

excess of targets, upland rice at 74 percent, coffee at 77 percent and cocoa at 95 percent of target. In terms of estimated yields, upland rice under "credit" conditions is nearing World Bank appraisal targets, while "non-credit" yields lag 25 percent behind "credit" yields; swamp rice targets have been exceeded by double the estimated yields per acre for "credit" and "double crop" farms, while even "non-credit" farms have exceeded expected yields by as much as 45 percent.

Since the coffee and cocoa rehabilitation programs were abandoned as unpractical and newly planted coffee and cocoa are still too immature to yield crops, yield increases have been obtained solely by means of better methods of cultivation using existing trees. Highest coffee yields are 30 percent below target, while average cocoa yields are on target and highest cocoa yields as much as 23 percent over target. World coffee and cocoa prices thus far have been favorable and farm gate prices have reflected this condition to the benefit of tree crop farmers. Farm gate prices for rice are officially set at 12 cents per lb. but because of middlemen interference and questionable coop practices, the uninformed small farmer sometimes has to settle for less. A proposal in 1979 to increase farm gate prices to 15¢/lb. to serve as an incentive for farmers to grow more rice (for increased national food sufficiency) came to naught as a result of the Easter "Rice Riots" in April 1979 and the 12¢/lb. price was maintained, while Government subsidizes imported rice prices in the consumer market.

Traditional rice farms in Liberia are small because of the physical labor constraint of the typical subsistence farm family. Given the present state of rice production technology in Liberia, the vast majority of rice farmers are unable to farm more than four acres, as it takes about .5 person hours of labor to grow one pound of rice. It is, therefore, largely labor-intensive and net returns per hour per acre are between 20-25 cents.

A traditional upland rice farmer used to obtain yields of between 900 and 1,000 lbs. per acre, for a net yield per acre of \$110 or a total yield on his rice crop of \$375 per annum; while a traditional swamp rice farmer used to obtain yields of about 1,100 lbs. per acre for a net value per acre of \$124 or a total value of his rice crop of \$620 per annum. With more modern inputs the upland rice farmer has been able to increase his per acre yield from 1,000 to 1,400 lbs. while the swamp rice farmer can increase his yield per acre from 1,000 lbs. to 2,400 lbs. While these increments only

add marginally to marketable surpluses in the aggregate, it does enable these subsistence farmers to eliminate the seasonal hunger in their families and generate a small amount of cash to buy the things they cannot produce themselves and pay taxes.

Quantum jumps ^{1/} in producing marketable surpluses toward eventual self sufficiency in rice remain constrained by (1) investment needs of magnitudes which the current agricultural credit system cannot meet; and (2) by needs to consolidate large numbers of small plots and switch from shifting agriculture to a more stationary regime of cultivation, which is predicated on successful land reform. The LCADP project does not sufficiently address these issues, nor can it do so because these are national constraints rather than location-specific ones. In terms of lessening these constraints, the proposed "zero tillage" option appears to offer the next best alternative. Lofa II should address these issues against the backdrop of the lessons learned under Lofa I.

It is still too early to conduct "before and after" comparisons with coffee and cocoa, since the first harvests of newly planted trees will occur in 1980, with greater harvests in subsequent years.

At the close of the 1978/79 reporting year of the LCADP, 1,004 project farmers had developed and planted 5,392 additional acres of upland rice, 1,419 project farmers had developed and planted 2,435 additional acres of swamp rice, 974 coffee farmers had developed and planted 1,575 additional acres of coffee and 543 cocoa farmers had developed and planted 1,286 additional acres of cocoa. Especially as regards the rice farmers, the cumulative additional economic effect of these efforts has been considerable while the effects of the new coffee and cocoa plantings is expected to provide further additional economic benefits when harvests start.

It has been reported that as a result of these activities, hired farm labor in the project area is becoming scarce and therefore, farm labor wages have risen considerably, which benefits the laborers but constitutes an increase in production costs to the farmer of 100-130 percent per day for each laborer.

^{1/} See Tables 1 and 2.

Increased incomes, although beneficial to the farmers, have also contributed to inflation in Upper Lofa County. As farmers earn more they consume more, which has given rise to secondary economic activities (informants report that shopkeepers and Lebanese merchants are doing very well as a result), and the demand for additional consumer goods has caused prices to increase. Wage levels have been rising as a result of increased opportunity cost in the areas. The Project Management Unit (PMU) reports an increase in savings activities (additional accounts) especially since the Agriculture Cooperative and Development Bank opened an office in Voinjama in 1979. However, it is assumed that the effect on total savings will initially be minimal since some farmers are for the first time entering the money economy and tend toward increased consumption rather than increased savings.

A recent rural roads impact study, conducted partially in Upper Lofa, generally found that economic benefits from newly constructed roads were discernible for only one hour's walking distance inland from the road, i.e., no more than three miles. Beyond that distance the problem of transporting farm inputs into the area and evacuating farm produce out becomes so difficult that it is no longer attractive to grow marketable surplus. The team also found that roads tended to facilitate the evacuation of farm produce considerably more than they aided the flow of farm inputs into the area; this seems to be an extension problem which has not yet been adequately faced. Finally, it was found that in the impact zone along newly created roads and feeder roads, farmers tended to shift from the cultivation of food stuffs to the cultivation of cash crops, since it costs as much to transport one bag of rice (@12¢/lb farm gate price) as it does a bag of coffee (@85¢/lb), or a bag of cocoa (@80¢/lb) to the nearest point of sale.

Total additional road mileage constructed thus far as a result of the LCADP has been in the neighborhood of 100 miles. This is clearly not enough, as farmers are clamoring for more roads to gain access to swamps for swamp rice cultivation, and to open up additional acreage for cocoa development. Economic impact of new roads thus far has remained somewhat limited due to the shortfall in actual construction as compared with targeted mileage.

New agro-industrial activities directly related to project activities have remained limited to a rice mill and a coffee processing facility, both in Voinjama operated by the LPMC. Some temporary increase in construction employment was generated during the building phase of the project 1977-1978,

but this has fallen back to previous levels now that all buildings have been completed.

The Lofa Rural and Commercial Bank (part of the Liberian Bank for Development and Industry) was bought in 1979 by the Agricultural Cooperative and Development Bank (ACDB), an institution receiving USAID technical assistance. This has enabled the bank to extend its services into the project area. The Bank extends full services to the cooperatives and facilitates rapid produce buying by the latter. To this end the Bank extends credit facilities to the cooperatives and accepts warehouse receipts and checks presented by the cooperative. The Bank also manages the cooperative's revolving credit fund, operated to extend seasonal and development credit to farmers. The project extends seasonal and development loans to farmers; repayment is collected through the coops. Three thousand two hundred forty-five farmers have cumulatively borrowed \$715,332, or 55 percent of the appraisal target. The Bank also extends full banking services to the community. The number of savings accounts increased from 600 in 1978 (LBDI) to 732 in 1979 (ACDB). The Bank is fully established and is paying for its operation from services rendered. Only \$75,000 was used out of a \$200,000 intended subsidy by IDA for the establishment of the Bank.

In terms of employment creation, we have already referred to the increasing scarcity and rising costs of employing hired farm labor in the area, although numbers of additional employed are lacking. A number of key informants report that there are now more people farming in the project area than ever before. This tends to indicate increased productivity and additional employment, but again, figures are lacking. The project itself employs 341 persons in the Upper Lofa area, with an annual payroll over \$2 million. Assuming a multiplier effect in Upper Lofa of three, given the high consumption component of disposable income, the total economic activities generated by the salaries component alone amounts to \$6 million per annum.

A more comprehensive economic impact assessment must await the completion of the project in late 1981 and then again ten years hence in order to more fully measure the direct and indirect effects the activities have generated.

C. Social Impact

One of the social impacts (in terms of people learning to work together toward common objectives and learning to trust

themselves and each other with other people's money) has been on the cooperatives and the town cooperative units (TCUs) or mini-coops. Before the project became active there were six coops in Lofa County, four of which were in the project area:

Intofawor Farmers Coop., Foya (1,190 members-Jan. 1975)

Voinjama District Farmers Coop., Voinjama (1,478 members Jan. 1, 1975)

Gbandi Farmers Coop., Kolahun (747 members-Jan. 1975)

Zorzor District Farmers Coop., Zorzor (350 members Jan. 1975)

These four coops then had a total assets of \$755,000, with the Intofarwor Coop. accounting for more than three quarters of total assets. Except for the Zorzor Coop, the Upper Lofa Coops were judged to be generally better than those in other counties. The coops, which have currently grown from four to five, are responsible for:

a. mobilizing the interest and participation of farmers and organizing them into small village groups or cooperatives;

b. organizing an effective system for delivery of inputs to participating farmers as well as credit distribution and recovery;

c. providing assembly, storage, transportation and handling and other marketing functions particularly for export crops.

Management and staff of the project area cooperatives were expanded and trained to handle the increased responsibilities, under the supervision of a commercial manager.

The "interest-mobilization" effort has had considerable success. During the initial three years of project activities, 200 town cooperative units (TCUs) have been organized by the main cooperatives. Total TCU membership in late 1979 stood at 4,755. The TCUs are continuously being developed as effective base units for loan processing, collections and marketing. The project limits reloaning to farmers whose TCUs have a good loan repayment record; therefore, the social pressure effect in order to attain a good percentage of loan repayment with the membership of each TCU, is becoming apparent. Foya district has the greatest number of TCUs with 43 percent of total TCU membership.

The LPMC has agreed to appoint bonafide cooperatives as their only licensed buying agents -- a function formerly dominated by Lebanese and Mandingo traders -- and the volume of business of these cooperatives has increased as a result.

Despite these successes, there are problems within the coops. The World Bank has identified a number of management problems which need attention through further training and better supervision. Coop members complain about coop leadership. Key informants stated that the cooperatives are dominated by politicians, big farmers and other "big shots" who do not take the small farmer into consideration, and who tend to run the coops as personal enterprises rather than as community membership organizations aimed at benefitting all rather than some.

Experience to date indicates that the cooperative movement in Liberia still stands in its infant shoes and concepts have not yet been internalized. It has been found difficult to organize and effectively operate coops as a result. Yet, there is considerable optimism that coops will over time become viable instruments in the rural development process once they have put their growing pains behind them. Thus far the TCUs, being smaller in size and more easily relatable to traditional susus and kuus (savings and communal work groups) have been more successful than the coops.

The education of farmers by extension aids has also apparently been successful. These aids who live in the villages with the farmers have been able to become accepted to the point where farmers have confidence in what the aids impart. The extension services continue to spread throughout the project area. During 1978/79 2,007 farmers were reached with crop development packages, for a cumulative total of nearly 4,000 farmers during the operational period of the project thus far. Total newly cultivated acreage in the project area reached 10,688 by late 1979. Any observer in and around the project area can see non-project farmers trying to copy project farmers' methods, especially in swamp rice development. There appears to be considerable pressure by people currently outside the project area to have project activities extended to their region. In some instances this had led to discord because of jealousy. The demonstration effect has been and continues to be considerable.

The well-digging aspect has also been very successful. After three years, the five year target of 100 new wells had already been reached and overall numbers of wells dug at e.o.p. status are expected to considerably exceed targets. In

addition, the PMU has generated much interest among villagers in latrine construction, building on the enthusiastic reception of the wells and continued goodwill of the people. This latrine construction activity was not originally planned but has grown spontaneously, with a considerable self-help component.

Equally encouraging has been the LCADP road construction unit in generating self-help activities in feeder road construction, maintenance and bridge construction, including an 80 foot span.

Health problems in the swamps have been kept to a minimum as a result of the excellent work of the Schistosomiasis Surveillance Unit (SSU). In the education sector the impact of the project has not been significant. The PMU was to work closely with the rural Community Schools Program of the Ministry of Education to assist, with the help of the project advisory committee, in establishing community schools program priorities in the area. This has not yet developed significantly to date.

D. Technical Impact

It is widely reported that new production techniques and farming methods are being well accepted by the target group. The demonstration effect is significant and the fact that non-project farmers are now copying farming methods of project farmers, especially in swamp rice cultivation, illustrates the receptivity of the Upper Lofa people generally to skills transfer. Another indication is the greater-than-expected success with swamp rice cultivation in the project area itself. Prior to the start up of the project, only 1,600 acres were under swamp rice cultivation, versus more than 4,000 acres by mid 1979. High yielding rice varieties such as LAC 23 are well accepted, as are various types of fertilizers.

LPMC has established more than 120 coffee and cocoa seedling nurseries throughout the project area. There are some problems, however, with the coffee rehabilitation program. Farmers have not followed recommendations on shade reduction very well and they are still reluctant to pruning their old coffee trees, which they consider to be their money capital. Apparently, they have not yet been convinced of the economic benefits of the recommended "coffee package." The rehabilitation of cocoa has been found to be unrealistic as the traditionally planted Amelonada coffee is in poor condition in all project areas. As a result the LCADP has directed little effort toward rehabilitation of existing trees but instead has focussed on new plantings.

E. Political and Policy Impact

The project has not had any significant political impact other than that through the mechanism of coops and TCUs. More farmers participate in community economic decision making, although this is more of an economic impact than a political one. It has been reported, however, by a number of key informants that politicians, local "big shots" and large farmers tend to dominate the coops and that small farmers do not have a chance to make as much input into the decision-making process as would be desirable.

LCADP was Government's first serious attempt at implementing integrated rural development on a large scale. Since the establishment of the Lofa Project, GOL has established similar projects in Bong County (with USAID and IBRD) and Nimba County (assisted by the West German Government). However, as decentralization concepts are evolving, Government is getting away from the notion that a project management unit (PMU) is the ideal mechanism through which a project of this nature ought to be managed. There is now more pressure, both from the local authorities and from central government, to use existing structures through which to coordinate and manage these projects. GOL is currently conducting feasibility studies to set up a Southeastern Area Integrated Rural Development Project, involving Grand Gedeh, Sinoe and Maryland Counties. Indications are that no project management unit format will be applied there.

Partially because of the success of LCADP farmers in significantly boosting food production and marketable surpluses, GOL has become more convinced that ultimate self-sufficiency in rice is a possibility and in 1979 proclaimed a new policy: "Movement back to the Soil for Food Sufficiency." This policy is aimed at keeping farmers on the farm (counteract rural-to-urban migration), increase productivity and yields per acre, introduce technology to enable farmers to farm on expanded acreage and, finally, to provide a viable employment alternative to unemployed urban youths and school leavers who now have little opportunity other than to drift from one part-time, low-paying job to another.

The LCADP and its relative success within a short period of time has boosted GOL's agricultural development efforts in general and has more firmly established the policy that economic diversification into cash crop and food production are preferable to sole reliance on rubber, iron ore and timber exports as a vehicle for economic growth and development.

F. Impact on Women

Women play an important and crucial role in Liberian agriculture; the men do the heavy work (brushing, clearing, burning and fencing) and the women are generally responsible for sowing, weeding, transplanting, pruning and harvesting. Where farmers have benefitted by project activities in the LCADP area, their women have benefitted proportionately as a result of better yields and higher incomes and improved access to markets.

G. Environmental Impact

Environmental impact has been positive. Increased swamp rice cultivation tends to take the pressure off upland shifting cultivation, using slash and burn techniques. Key informants report that as a result of increased swamp rice cultivation, especially in high population density areas, forests are now being preserved.

Due to the work of the SSU, snail infestation of swamps is being closely monitored and kept to a minimum and the health of the farmers who grow swamp rice is not adversely affected. Fertilizers used have a positive impact on the soil, while insecticides used are approved varieties and have not caused any problems with drinking water.

Table 1

RICE TECHNOLOGY ALTERNATIVES FOR LIBERIA ^{1/}

	MAX ACREAGE	YIELD		COST		GROSS \$ YIELD		NET \$ YIELD		LABOR REQ		LABOR HRS PER LB OF RICE HR/LB	\$/TT RETURNS PER HOUR PER ACRE
		LBS PER ACRE	LBS TOTAL	\$ PER ACRE	\$ TOTAL	PER ACRE	TOTAL	PER ACRE	TOTAL	P/HRS PER ACRE	P/HRS TOTAL		
TRADITIONAL UPLAND RICE	3.4	1,000	1,400	10.20	34.68	120	408	109.80	373.32	561	1707	.561	.20
TRADITIONAL SWAMP RICE	5.0	1,100	5,500	8.40	42.00	132	660	123.60	618. -	492	2460	.447	.25
IRD RAINFED TRANSP. SWAMP RICE	3.2	2,400	7,680	93.36	298.65	288	922	194.64	623.35	474	1517	.198	.41
RAINFED & IRRIGATED TRANSP. DOUBLE-CROP RICE	2.9	6,000	17,400	190.56	552.61	720	2,088	529.44	1,535.39	912	2645	.152	.58
TRANSP. RAINFED IRRIGATED INTER HED. MECH. TECH. DOUBLE-CROP RICE	6.3	6,000	37,800	295.92	1,864.30	720	4,536	424.08	2,671.70	440	2772	.073	.96
DIRECT SEEDED RAINFED & IRRIGATED, HERBICIDE, INTERMED. MECH. TECH. DOUBLE-CROP RICE	15.9	6,000	95,400	321.92	5,118.53	720	11,448	190.08	6,329.47	780	2862	.030	2.17
IITA NO-TILL UPLAND RICE	11.8	2,500	29,500	137.22	1,619.20	300	3,540	162.78	1,620.80	160	1888	.064	1.02
IITA NO-TILL UPLAND, HAND- PLANTED, MECH. HARVESTING RICE	17.7	2,500	44,250	170.85	3,024.05	300	5,310	125.15	2,285.95	84.3	1492	.034	1.51
IITA NO-TILL RAINFED PADDY, HAND-PLANTED MECH. HARVESTING RICE	17.7	3,000	53,100	200.68	3,552.03	360	6,372	159.32	2,819.97	100.3	1775	.033	1.89

^{1/} SOURCE

Dr. W. Bolton USAID, Liberia
Dr. A. Jeagler USAID, Liberia

Table 2

RICE TECHNOLOGY ALTERNATIVES FOR LIBERIA ^{2/}

INITIAL LAND & MACHINERY INVESTMENT NEEDED FOR EACH REGIME (\$)

	LAND IMPROVEMENT		MACHINERY TOTAL	INITIAL INVESTMENT	
	PER ACRE	TOTAL		TOTAL	PER ACRE
TRADITIONAL UPLAND RICE	-	-	-	-	-
TRADITIONAL SWAMP RICE	-	-	-	-	-
IRD RAINFED TRANSPL. SWAMP RICE	185	592	-	592	185
RAINFED & IRRIGATED TRANSPL. DOUBLE-CROP RICE	250	725	300	1,025	353.45
TRANSPL. RAINFED, IRRIGATED INTER MED. MECH. TECHN. DOUBLE-CROP RICE	250	1,575	5,510	7,085	1,124.60
DIRECT SEEDED RAINFED & IRRIGATED, HERBICIDE, INTERMED. MECH. TECHN, DOUBLE-CROP RICE	250	3,975	5,510	9,485	596.54
IIA NO-TILL UPLAND RICE	-	-	1,180	1,180	100.00
IIA NO-TILL UPLAND HAND- PLANTED, MECH. HARVESTING RICE	-	-	4,080	4,080	230.51
IIA NO-TILL RAINFED PADDY HAND-PLANTED, MECH. HARVEST- ING RICE	250	4,425	4,080	8,505	480.51

^{2/} SOURCE

Dr. W. Bolton USAID, Liberia
Dr. A. Haegler USAID, Liberia

APPENDIX 1

QUESTIONNAIRE ANALYSIS

1. Nineteen key informants were interviewed, all of whom claimed to be familiar with the project.

2. Of the 19 respondents, 42 percent became familiar with it as Liberian Government employees, 37 percent as private sector individuals, and 21 percent as civic opinion leaders. Of the 13 who indicated the time at which they became familiar with the project, the distribution was as follows:

prior to 1976	:	8	percent
1976	:	69	"
1977	:	15	"
1978	:	8	"
1979	:	-0-	

3. When asked to indicate what they knew about the project, all could identify the main objectives, indicate for whose benefit the project was undertaken and the location of the target group. In response to the question who generated the idea for the project, only 95 percent responded. The distribution of their responses indicates that the majority thought that the idea came from GOL, while only 3 correctly identified it as a joint concept between GOL, IBRD and USAID. One respondent ventured that "GOL was pressured into it by the external donors."

Fifty three percent found that the project was feasible at the time it was undertaken, while 47 percent had no answer.

Seventy-four percent claimed to know why USAID rendered assistance;

illustrative responses were:

- to assist in the overall agricultural development of Liberia;
- to help the unfortunate poor to improve himself;
- getting employment for Americans and having produce for their own markets;
- (to establish the) schistosomiasis surveillance unit, to control infections;
- to provide credit in order to make more money later on;
- to be of help to the poor farmers;
- to keep up its friendship with the Liberian people;
- America wants to be friends with governments in the Third World;
- in order to assist in the development of rural Liberia, economically and socially; long years of contact between the US and Liberia provided insight to needs;
- the Americans always assist;
- uplift economic standard of living);
- to be known here by the people.

(Three respondents thought the US assistance was self-serving.)

The rest of the respondents did not know why the US Government chose to lend assistance.

All respondents reported that the activity currently exists.

The project had personally affected 84 percent of the respondents.

4. Respondents said that 37 percent made decisions regarding the project, 58 percent made no decisions while 5 percent did not respond to the question. Of those who made decisions, 71 percent made mid-level decisions while 29 percent made top-level decision. Most decisions were technical and managerial in nature.

5. When questioned about whether or not a decision to go ahead with the project had already been made when they became familiar with it, 78 percent stated that they became familiar with it after the decision had already been made, 11 percent became familiar with it when it was still being planned, while 11 percent did not know the answer to the question, as they were not familiar enough with the decision-making process nor its timing.

6. Thirty-seven percent of those interviewed thought that prior consultation was adequate and that intended beneficiaries were clearly identified, while the majority (53 percent) found that prior consultation had been deficient in one way or another. Some of the answers, in illustration, volunteered by the latter group were:

- no; only information was published afterwards (when decision had already been made);
- no; wrong places selected; wrong clan selected in Zorzor District; sites selected only along the roads;
- no; people were only informed that the project was to take place;
- no; only the "big people" were contacted in the beginning;

- no; some decisions about implementation were wrongly decided; example: appraisals were underestimated; vehicles (Peugeot cars) were not ideal (for the conditions`
- sites were selected without consultation, except for higher-up officials.

Eleven percent did not know or were not sure about the adequacy of consultation. It appears that some groups and individuals were consulted while others were not.

7. The key informants were then asked if they knew whether other projects were considered as alternatives when the project was planned and designed. Fifty-eight percent were not familiar enough with the planning/preparation phase to answer this question; 26 percent were sure that no alternative projects were considered; 11 percent did not respond to the question; while 5 percent indicated that other alternative projects had indeed been considered (a feeder roads project and a multilateral high school).

8. When asked whether they knew why the project was chosen, 63 percent responded affirmatively:

- to help small farmers develop holdings;
- to produce more cash crops;
- to make Liberia a producing country of tree crops;
- to help every farmer in the county;
- to help the marginal farmer;
- to see if people are willing to do tree crop farming on a big scale;

- to improve tree crop farming in Upper Lofa;
- to improve agriculture generally in the area;
- self-sufficiency in food;
- Lofa people are naturally agricultural people;

Thirty-two percent said they did not know why the project was chosen; while 11 percent gave no answer.

9. Eighty-nine percent of the respondents indicated that it had been placed in the proper location, while the remaining 11 percent did not know whether it had been properly located or that perhaps another location might have been better.

10. Even though the project is in its fourth year of operation out of a project total of five years, respondents were asked to comment on the project's success in achieving its objectives. Of the total number of respondents, 68 percent found that the project was being successful in achieving its objectives. They cited the following illustrations:

- owners of (newly) developed acreage will not let their crops die out;
- swamps are now cleaned for rice cultivation;
- "LAC-23" (rice) is well accepted by people due to its high yields;
- increased frequency of harvests;
- the schistosomiasis supervision unit is doing a good job;
- forest areas are being-preserved because of increased swamp rice cultivation;

- loan repayments are in line with World Bank standards; loan applicants double in number) every year;
- farmers are being better educated (because extension) aids live with the farmers in the villages;
- most objectives are being addressed. except no emphasis on roads;
- I would say from what I see in terms of economic activity around here (that) it can be safely stated that the farmers are harvesting better grades of crops and thereby (are) making much more money now than ever before. They are being advised in the proper use of modern agricultural techniques, thereby ensuring greater yields for their products;
- most activities on schedule when revolving credit funds began to sustain the project ('s objectives); responses of the farmers so far (have been) good;
- the local people are becoming more self reliant;
- more farms; better quality production;
- the farmers are convinced that this project is somewhat different from previous projects where people were promised benefits which they never saw.

Five percent of the respondents thought it was partly successful, while 16 percent were not sure yet. The main reason for these responses was that it was too early to tell and the project had not yet run its full term. Only 11 percent thought that the project had not been successful, but these respondents only criticized specific

problems, not necessarily reflective of productive achievements of the project as a whole. Illustrative comments are:

- salaries take too much of the project's funds; people are overpaid. More funds should have gone into implementation rather than salaries;
- the name "World Bank Project" casts a negative impression on the local people;
- too many "big people" in the cooperatives; they do not give small people enough of a chance to express their views; get the "officials" out of the cooperatives and let the farmers elect their own leaders;
- leaders of cooperatives should be taught that coops are institutions, not private ventures; accountability of coop. funds should be strictly enforced;
- political leaders are leading the cooperatives;
- the bigger farmers benefit disproportionately; services are not reaching the small farmers enough.

11. When asked what should have been done differently to make the project more successful, 79 percent provided suggestions, while 21 percent did not answer this question. Among the suggestions for doing things differently were:

- farmers need more help with brushing (i.e. clearing), since their children are not helpful these days;
- (it should have been realized that) older farmers have more resources to put into farm cultivation than younger farmers who may be physically younger (i.e. a farm labor constraint for younger farmers);

- take entire districts in order to assess benefits;
- the project has failed to involve county officials sufficiently (Superintendent speaking);
- monetary aspects of the project have been kept secret from the county authorities (Superintendent speaking);
- (prior to project) ask for suggestions from every sector of the county;
- the village approach is better; (under the present project the) cost of operation is higher;
- no pilot project was undertaken to test the assumptions made by foreign experts;
- more Liberians should have been involved at the early stages;
- local people were not really involved; it is not enough to involve the Superintendent, the paramount chief and the big farmers; the small farmer should not be neglected (paraphrased);
- more emphasis should be given to training in terms of appropriate and adequate training; the duration of the training should be lengthened;
- a sub-research station should have been included in the design; i.e. to test the types and varieties of crops to be planted in the project area;
- vehicles should have been chosen for their economy, for example Toyotas rather than Ford Broncos;
- bureaucratic red tape causes supplies to be delayed;
- assistance should be spread out to include the remotest areas;

- by asking the people to make some suggestions before starting to implement the project;
- the people should have been adequately consulted, not just the "big shots" of the area;
- training division should have been provided with more transportation equipment; i.e., need for 4-wheel drive vehicles to transport farmers for training to increase impact;
- establishing more sub-district projects:
- the project should have provided better credit than the present level.

12. When asked to rate project inputs on a scale of 1 (low) to 5 (high), only 53 percent of the respondents provided any rating, the result of which is as follows:

Facilities and equipment	:	4.4 (N=10)
Technicians	:	4.0 (N=10)
Training	:	4.2 (N=10)
Operational and logistical support	:	4.0 (N=6)

13. As for project funding, 42 percent considered it adequate, 21 percent found it inadequate, 32 percent were not sufficiently familiar with the funding aspect, while 5 percent gave no answer.

14. All respondents were able to identify the small farmers as the main beneficiaries who have been affected by the project,

while 37 percent identified groups other than intended beneficiaries who also benefitted: large farmers, surrounding communities, businessmen, educational institutions, health agencies, Lebanese traders.

15. Overall impact of the project on the target group was judged positively by 95 percent of the respondent, while only 5 percent found the impact to have been negative (the latter, the district education officer and a coop. president, claimed that the farmers are not being treated fairly and that the project has resulted in a labor scarcity to do other work in the area.) Respondents who found the impact positive gave the following examples:

- farmers are beginning to realize that the concept of agriculture is not just from hand to mouth (i.e. they are getting away from sole subsistence agriculture and growing marketable surpluses and cash crops too);
- more and more people are beginning to have an interest in farming;
- people are planting more;
- after realizing how much a strong farmer can realize from his farm, many people are now serious about farming;
- small farmers are asking for help from the project; there are lots of applications for swamp development, coffee and cocoa;
- it has provided more agricultural inputs, better mobility (farm to market roads), better agricultural production methods, improved seeds;

- there are now more farmers within the project (area) and they are receiving (project) assistance;
- there is increased productivity and output;

Most interviewees, however, merely indicated that the overall impact had been positive, without citing examples.

16. In response to the question was there any impact on GOL policy, either a new policy or a change in policy?, 58 percent indicated that the project had resulted in policy impact, while 42 percent did not know. Of those who indicated policy impact, all thought this impact had been positive, illustrated by the following comments:

- agriculture was first overlooked (but) now agriculture is becoming a first priority;
- GOL is getting concerned with rural areas and is preparing for the days when agricultural products will no longer come from neighboring countries;
- closer cooperation between the Ministry of Agriculture and the Lofa County Agricultural Project;
- for a long time the Government did not care much for the interior parts; now that the mining business is not too favorable, the Government wants to turn to agriculture, but policy must be fair to the people (sic);
- emphasis is shifting to agriculture;
- now Upper Lofa and other remote areas can generate funds locally;

- Ministry of Agriculture emphasis on getting people to get involved in agricultural production;
- new emphasis on GOL's policy of integrated rural development;
- agriculture formerly only centered around office area (i.e., bureaucratic paperwork with little practical output); the emphasis has now shifted to field work (i.e. production);
- the project is being duplicated in Bong and Nimba counties;
- the Government is now telling us to do more farming by putting in projects that open areas in the interior part of the country.

17. Respondents were asked to rank the benefit of the project on a scale from 1 (low) to 5 (high), with the following percentage distribution:

1	:	-0-
2	:	-0-
3	:	42%
4	:	26%
5	:	26%

The 3 (average benefit) rating is largely a result of the project having only been in existence for 3 years and respondents tended to find it too early to make a complete judgment on its overall benefit when the project still had 2 years to completion. They therefore tended to hedge, in unsolicited comments on their rating level.

18-19. Although the project has had a decidedly overall positive

impact, thirty-nine percent of those interviewed, thought the project had unintended side effects, which tended to be negative (71 percent) rather than positive (14 percent). Eleven percent were sure the project had no unintended side effects, while 50 percent were not sure or did not know whether there were unintended side effects or not. Negative side effects listed were:

- the big farmers benefit most; the small farmers least;
- project staff salaries are too high, causing a push for salary increases in other sectors and this contributes to inflation;
- the housing market in Voinjama is strained and rents have skyrocketed;
- the project has directly contributed to inflation in Northern Lofa;
- workers for other activities are becoming hard to find;
- farmers are abandoning upland rice on a large scale (and going into swamp rice cultivation);
- the "bigger boys" monopolize the cooperatives;
- there is disharmony among the people because the project has not reached all areas;
- it is expensive to get people to work for wages that most people can afford in the project area; cost of labor has gone up;
- it is tempting the rice farmer away from food crops farming and into tree-crops because they can earn more money from their tree crops (paraphrased).

(This last point was corroborated by the findings of a recent Rural Roads Impact study team in Liberia.)

20. In response to the question: who is generally regarded as being responsible for carrying out the project, the distribution of responses was as follows:

USAID only	:	-0-
GOL only	:	16%
USAID & GOL only	:	47%
USAID, GOL and Other(correct)	:	32%
Other	:	5%

21. When asked whether a similar project would be appropriate elsewhere in Liberia, responses were overwhelmingly positive (95 percent) while 5 percent did not know whether or not it would be appropriate elsewhere. The fact that GOL has subsequently approved integrated rural development projects in Bong and Nimba Counties and is conducting a feasibility studies for an IRD project to involve Maryland, Grand Gedeh and Sinoe Counties, further illustrates LCADP's replicability.

22. Thirty-five percent would not change the design of a similar project being prepared today, 24 percent did not know, while 41 percent indicated they would change the design as follows:

- involve county leadership; the LCADP looks like a foreign venture in Lofa County; the Superintendent should be involved in the planning, not only in an advisory capacity. (Superintendent speaking.);
- initial involvement of local people is a must;
- employ local methods, i.e. older farmers have more people in their household that they can employ on the farm; young people do not have this benefit and so must first provide for their basic needs before engaging in secondary activities;

- LCADP should have built feeder roads first, before starting their agricultural program;
- some project administrators, although highly educated, have a mentality that is not oriented to the rural culture by implication, put the sons of the soil in charge);
- more funding should have been allocated to purchasing of equipment, facilities and logistical support as opposed to salaries;
- the whole political area (i.e. the entire county) should have been involved and not only some sections to the neglect of others; this brings about disharmony;
- depends on local conditions; every county is different;
- people (should) make suggestions and these should be considered before the start of a project;
- do away with the quarterly approval of the budget; the Project Steering Committee should approve this on an annual or semi-annual basis;

23. (Repeats an earlier question.)

24. Respondents could not answer the question: do the results of this project constitute a viable entity/function today (i.e. is it able to exist without further outside assistance). The reason is that the project is still on-going and a question of this nature cannot be answered at this stage.

Appendix No 2

METHODOLOGY

In consultation with statisticians from the US Bureau of the Census (BUCEN) and the Evaluation officer of AFR/DP/PPE it was decided to test the "key informant" approach as a survey technique, given the limited budget available for impact studies and the time constraint under which these studies are carried out. It was realized that some bias would result; not a bias in points of view but rather, of familiarity with the project and availability for interviewing. Therefore, World Bank evaluations and LCADP project reports were used to supplement the information generated by the "key informants" interviews.

The project - an integrated rural development project, now in its fourth year of operation of a five length-of-project - was chosen as one of three projects on which our approach, methodology and questionnaires would be field tested. Interviews were arranged with a key informants, largely in Lofa County. Experience gained led to the complete revision of the survey instrument (based on a one-on-one interviewing format) and the development of an additional questionnaire to be used when interviewing groups of persons. The latter was found necessary because the one-on-one type questionnaire was virtually useless in group interview settings -- a mode preferred by tribal people when they are being interviewed. Both the revised questionnaire and the newly developed "group" questionnaire are currently being field tested by the contractor on another impact study "candidate project", because it was felt that mixing three different survey instruments in one project impact study would lead to confusion in questionnaire analysis and tabulation of results.

The use of Liberian professional survey researchers has, we feel, resulted in less restraint in responding on the part of interviewees who apparently did not use the familiar stance of "telling AID what we think AID wants to hear.": Responses are, therefore, perhaps more truthful and tend to provide greater insight than if we ourselves or other "outsiders" had undertaken the interviews.

The exercise has not only yielded interesting impact data and perception on the project per se, it has also led to a reorientation in our original impact study approach. Besides it having been a interesting study, it has resulted in a valuable learning experience for USAID/Liberia, as well as for the contractor -- the first private Liberian-owned and staffed management consulting and research firm.