

AN ASSESSMENT OF THE POTENTIAL
FOR PEACE CORPS--USAID--HOST COUNTRY COOPERATION
IN SOCIAL FORESTRY PROJECTS

LIBERIA

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EXECUTIVE SUMMARY

Liberia PASA Report

I. Host Country Government/Agencies

Liberian development priorities and commitment have been affected by the coup d'etat of April 1980. The new Government of Liberia (GOL) has not yet fully defined its priorities, especially with regard to forestry.

The Forest Development Authority (FDA) administers national forestry policy. Liberia is heavily forested with valuable hardwoods. The main policy objectives are to control commercial exploitation and to reforest cleared forest lands.

The FDA's FY 81 budget request was for \$6 million. It is not clear whether the GOL will allocate the full sum. The FDA is supported heavily by foreign donors, notably the World Bank and the German Government. Though active in earlier years, the U.S. Agency for International Development (AID) does not now support the FDA.

FDA projects include four reforestation sites, a pulpwood plantation and a training center. Most Liberian foresters have been trained at the University of Liberia's School of Forestry.

The Mano River Union, an agreement among Liberia, Sierra Leone, and Guinea, has established a Forestry Training Institute (UFTI) in Liberia. UFTI has programs for mid-level forest rangers and forest industrial workers. The programs have begun successfully and UFTI is adequately supported. Several Peace Corps Volunteers (PCVs) teach at UFTI and the school is seeking foreign support for expanded programs.

II. Peace Corps

PCVs have worked with the FDA since its establishment in 1976. There are currently six PCV foresters in-country, five of them with FDA. Volunteers have

desired a greater degree of technical and personal support from FDA than they have actually received. Two PCVs transferred to other programs for this reason. The PCV at UFTI has been more satisfied with the support he has received.

Peace Corps/Liberia (PC/L) would like to expand its forestry program if FDA increases its support for PCVs. However, PC/L is concerned about the effect of Peace Corps/Washington (PC/W) budget cuts on all its programs.

III. AID

The U.S. Agency for International Development Mission to Liberia (AID/L) is not involved in forestry projects in Liberia and does not anticipate any in the near future. In the past, however, AID/L was very involved in the development of Liberian forestry.

IV. Training

The 1980 technical forestry training was led by UFTI officials, the 1981 session by PC/L staff. PC/L is concerned that skill training conducted outside of Liberia closely approximate conditions in the country. FDA officials indicated specific skills they consider appropriate for PCV foresters.

V. Programming

The FDA has outlined Liberia's priorities in forestry and Peace Corps' efforts should support them. PC/L should continue discussions with AID/L to see if AID/L is interested in forestry programming. Means must be found to enable FDA to support PCVs adequately.

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LIST OF ACRONYMS

AID	U.S. Agency for International Development
AID/L	AID Mission to Liberia
AID/W	AID/Washington
AIP	Accelerated Impact Program
APCD	Associate Peace Corps Director
FAO	United Nations Food and Agriculture Organization
FDA	Forestry Development Authority
FPG	Federal Republic of Germany
FY	Financial Year
GDP	Gross Domestic Product
GOL	Government of Liberia
MRU	Mano River Union
OIC/I	Opportunities Industrialization Center, International
PASA	Participating Agency Service Agreement
PC	Peace Corps
PC/D	Peace Corps Director
PC/L	Peace Corps/Liberia
PCV	Peace Corps Volunteer
PC/W	Peace Corps/Washington
PFP	Partnership for Productivity
PRC	People's Redemption Council
PVO	Private Voluntary Organization
REDSO	Regional Economic Development Services Office
TAC	Trainee Assignment Criteria
UFTI	Mano River Union Forestry Training Institute
UNDP	United Nations Development Programme
USDA	U.S. Department of Agriculture

INTRODUCTION

This report has been prepared for the Forestry Sector in the Office of Program Development of Peace Corps in conjunction with the PC/AID Forestry PASA (#936-5519). This report presents a brief overview of the institutions and activities concerned with forestry and natural resource projects in Liberia. The information will assist the Peace Corps and AID Washington staff to design and implement future forestry PASA activities through a better understanding of field operations and needs. Also, it is hoped that this report will provide in-country donor agency staff and government officials with an objective perception of current environmental projects, institutional capabilities and relationships, and possible areas for expansion.

The issues presented correspond to an outline (Appendix B) that Peace Corps/Washington provided each assessment team. We suggest that the reader review this outline of issues prior to reading the report to facilitate understanding the format and content. The issues were chosen because they will influence future Peace Corps, AID, and host country agency collaborative forestry efforts.

During the twelve-day assessment visit to Liberia, interviews were conducted with key personnel from Peace Corps, AID, and host country ministry institutions involved in forestry and natural resource activities. Site visits were also made to representative project areas and institutional facilities within the country.

The content of the report represents the authors' viewpoint resulting from the interviews, site visits, and review of available documents. The authors wish to express their appreciation to all who contributed time and energy to making the visit complete. It is hoped that the results represent a balanced and objective analysis of a complex series of activities.

I. HOST COUNTRY COMMITMENT AND EXPERIENCES

A. Government Priorities and Development Programs

On April 12, 1980, a coup d'etat replaced the one-party system which had ruled Liberia since 1869 with a military government headed by Master Sergeant Samuel K. Doe. The executive and legislative functions of the Government of Liberia (GOL) are performed by the People's Redemption Council (PRC).

The relatively few policy papers which currently exist date from the former government. The new government has not yet approved a development plan, and activities in most ministries are for all practical purposes frozen.

The new government has reaffirmed the former administration's "Open Door" policy whereby foreign capital investments are strongly encouraged. This is particularly true in Liberia's major exports--iron ore, rubber, and timber. The "Open Door" policy enables foreign firms to exploit Liberia's natural resources with relatively little interference from the GOL. Beyond this main thrust, development policies are unclear. In general, the previous administration had two stated priorities: self-sufficiency in food, especially in rice; and decentralization of the bureaucracy. Neither goal was met. A program of self-sufficiency in rice production by 1980 failed and the granting of decision-making power to county level officials was never achieved.

The sector reports for the 1980-1984 Five Year Plan, written for the former administration, have not yet been approved by the PRC. It is still uncertain whether the PRC will approve the plan submitted over one year ago for the forestry sector, and whether the GOL will strengthen the power of the Forestry Development Authority (FDA) to enforce forest management policy.

Liberia's development programs for the next one to three years will involve donor agencies to a very great extent, as the GOL is unable to fund its current projects.

I. B. Forestry Development Authority (FDA)

1. Programs

Liberia has an estimated 4.8 million hectares of forested land--almost half of the country's total area. This is not all primary forest, however. Human encroachment through shifting cultivation has already affected at least 2.3 million hectares of this forested land and much of the remaining area will soon be exploited by various timber concessions. According to the Working Group for the Forestry Sector, from 1973 to 1978 the percentage of the Gross Domestic Product (GDP) derived from the forestry sector increased from 2.6 percent to 4.8 percent. Logs and lumber increased from 3.2 percent to 9.6 percent of Liberia's total exports from 1971 to 1978, becoming three times as important for foreign earnings. Since 1976, forest products have surpassed diamonds as Liberia's third most important export. Iron ore and rubber remain the two chief exports.

As these figures suggest, the commercial exploitation of Liberia's forests is recent and grew dramatically in the 1970s. Exploitation began in the late 1950s and in 1969 there were still only six forest concessions. By 1974, the number of concessions had increased to 49. According to a 1977 FAO study, concession exports accounted for approximately 11 percent of Liberia's total annual roundwood production. Fuelwood and charcoal production for local consumption accounted for 67 percent of the annual harvest.

The Forestry Development Authority (FDA) is charged with creating and implementing forestry policy. Liberian forestry policy was set out in the legislation which created the FDA in 1976. The policy consists of seven major items:

1. Establish a permanent forest estate made up of reserved areas upon which scientific forestry will be practiced;

2. Devote all publicly owned forest lands to their most productive use for the permanent good of the whole people, considering both direct and indirect values;
3. Stop needless waste and destruction of the forest and associated natural resources and bring about the profitable harvesting of all forest products while assuring that supplies of these products are perpetuated;
4. Correlate forestry to all other land use and adjust the forest economy to the overall national economy;
5. Conduct essential research in conservation of forests and pattern action programs upon the results of such research;
6. Give training in the practice of forestry; offer technical assistance to all those engaged in forestry activities; and spread knowledge of forestry and the acceptance of conservation of natural resources throughout the country;
7. Conserve recreational and wildlife resources of the country concurrently with the development of forestry program.

One of FDA's major responsibilities is the proper management and control of the timber concessions. Although there are 90 marketable species identified in Liberia, fewer than 35 are currently desirable on the international market. Therefore, the concessions use very selective logging practices. The damage done to the residual forest has been extensive. FDA is attempting to stop this selective process by constructing new tariff tables which will make secondary species much more economically desirable.

A second major responsibility of the FDA is to increase the amount of wood that is locally processed. At least 40 percent of the total volume cut by concessions is supposed to be processed in Liberia, according to FDA policy.

Reforestation is increasing in importance to FDA. In 1971, the GOL started a National Reforestation Program funded by revenue from the concessionaires. An earlier policy of encouraging the concessionaires to do their own reforestation failed. A special tax is now imposed on all concessions which is supposed to finance reforestation efforts.

The World Bank and other donors have also supported reforestation efforts. The sites selected for these reforestation projects are Bomi Hills, Yekepa-Nimba National Forest, Cavalla Forest, and Grebo Forest. These sites were chosen because they had usable road systems and relatively high population densities. Exotic species such as Gmelina arborea, Pinus caribaea, Eucalyptus, and Tectona were planted because of their rapid growth rates. About 5,000 hectares have now been reforested.

A senior staff member at FDA noted that there is no truly coordinated research and development program in the agency. FDA is currently awaiting a seven-member team from Germany which will design and implement such a program, however.

Species trials of eucalyptus, pines, and teak have been ongoing in many areas of the country, as has very limited nursery research at reforestation sites. Such work has consisted of efforts to test seed viability in germination trial and the introduction of mycorrhizae to potting soil. Some ineffective fertilizer trials have also been undertaken.

FDA serves primarily as an enforcement agency in implementing forest policy. As a result, the Authority does not experience a good rapport with the local people in some areas. Senior staff members are aware of the need to change FDA's image if the agency is to become more involved in extension activities.

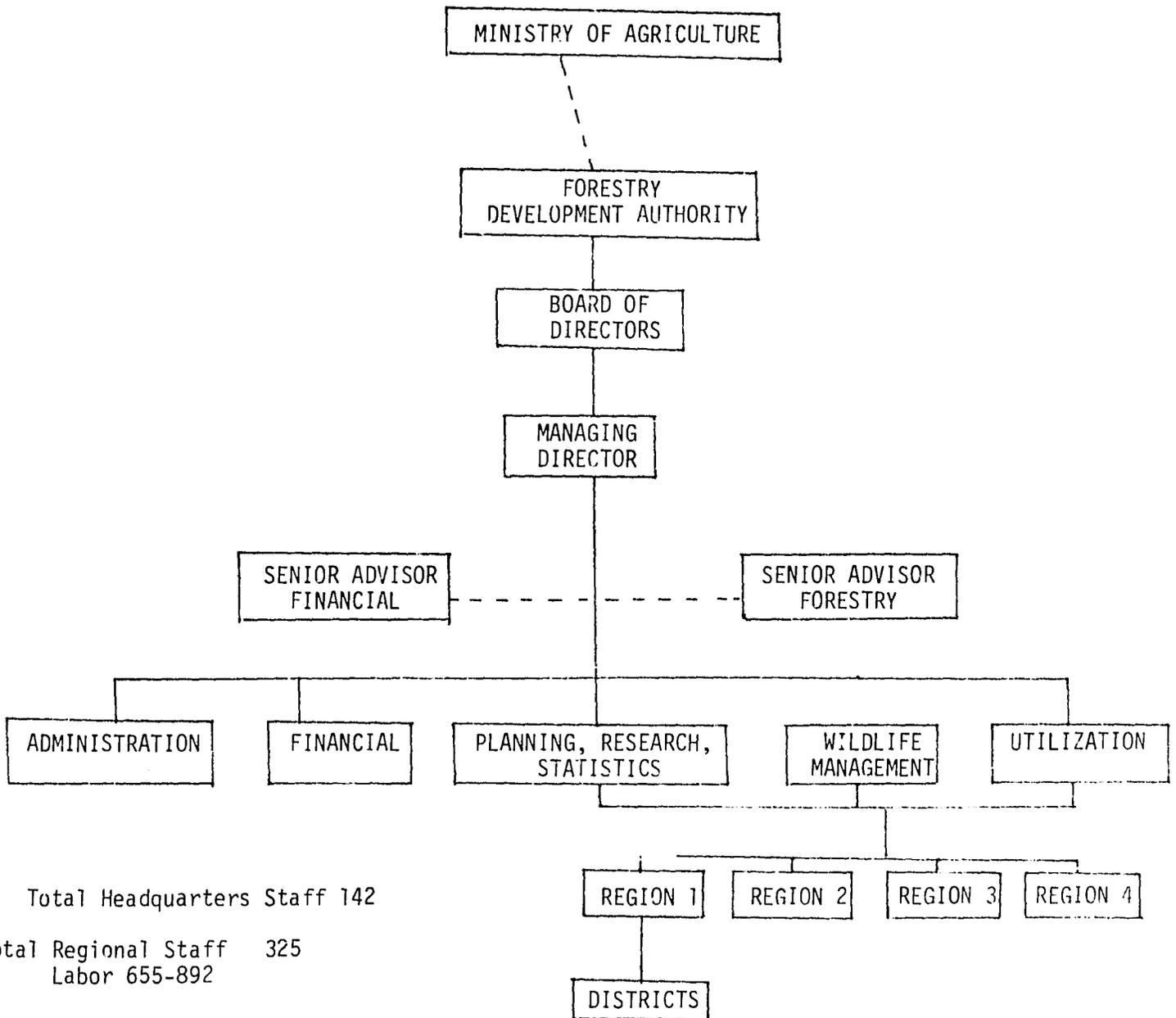
Other FDA projects are the Bomi Hills Training Center for logging and sawmilling, the Cape Mount Pulpwood Plantation, and the Documentation and Market Promotion Center. These are primarily funded by foreign donors and are described in detail below.

I. B. 2. Structure

The FDA was created by the GOI in 1976. Prior to this time, forestry activities were directly controlled by the Ministry of Agriculture through the Bureau of Forest Conservation. It was felt that the creation of a separate entity was necessary in order to deal with the vast timber resources. An indirect tie to the Ministry of Agriculture still exists in that the Minister of Agriculture is also chairman of the Board of Directors of the FDA.

The organizational structure of FDA consists of the central headquarters staff units and the regional staff units. At the central headquarters of FDA in Monrovia, there are five functional units charged with the responsibility of executing Liberia's forestry policy. These are the Administration Division; Financial Division; Planning, Research, and Statistics Division; Wildlife Management Division; and the Utilization Division. The head of each division is directly responsible to the Management Director, although advice is currently provided by two World Bank Senior Advisors, one dealing with fiscal activities, and the other with forest planning and operations. The Managing Director in turn is responsible to the Board of Directors. The organizational chart following illustrates these relationships.

FDA ORGANIZATIONAL CHART



Currently, the Board of Directors consists of ten members. The Minister of Agriculture is Chairman, with the Managing Director of FDA; the Minister of Finance; the Minister of Local Government; the Minister of Planning and Economic Affairs; the Minister of Commerce, Industries and Transportation; the President of the Liberian Bank for Development and Investment; and two members who are appointed by the Head of State making up the nine other positions.

There are 142 permanent staff comprising the five divisions at headquarters level. All of these individuals are Liberians and have the appropriate skills for their positions. Administration has 88 staff members; Finance has 13; Planning, Research and Statistics has 10; Wildlife Management has 15; and Utilization has 10 permanent staff.

There are now approximately 325 permanent staff members to manage all of the districts and regional offices. The permanent and part-time labor force fluctuates between 655 and 892. It is at this operational level where the FDA experiences much of its present problems. Because of the lack of trained individuals, professional staff have to spend most of their time in log scaling and revenue assessment on concession land. Lack of transport, materials, and equipment are also hindrances to local operations.

I. B. 3. Resources and Training

The budget request made by the FDA to the GOL for FY 1981 was \$6 million. Although the PRC approved this figure in 1980 it is now in question whether the full sum will actually be allocated to FDA. Of this \$6 million, approximately 17 percent is provided by FDA in the form of forest revenues from concessions. It is acknowledged that this percentage is lower than it should be, given the extent of commercial forest exploitation. Measures are being taken to increase this revenue from the concessions. For example, tariffs currently imposed on the ten most valuable species, which comprise the

greatest proportion of export volume, are being increased. At the same time, tariff levels on some less desirable species are being reduced. It is hoped that these changes will not only reduce the practice of highly selective logging, with its negative consequences, but will also increase revenue.

A 25 percent increase in the budget has been requested by FDA for FY 1982. Eighteen percent would go for daily operations; five percent for development programs; and two percent for a stabilization fund to provide a margin in case the timber concessions decide to terminate their operations.

Most of FDA's activities are funded by foreign donors, as described in the next section.

Most of the members of the FDA headquarters staff are forestry graduates of the University of Liberia's School of Forestry. A few senior individuals have degrees from overseas institutions. A German grant has recently enabled selected staff to do graduate and post-graduate studies abroad.

The School of Forestry is within the College of Agriculture at the University of Liberia, and offers options in Forest Management and Wood Science. There are six faculty members for the Forest Management program and three for the Wood Science program. The school graduated its first class in 1957 and now graduates approximately twenty students each year.

Technical training has not been very extensive for junior staff members. The formation of the Mano River Union in 1976 and the resulting Union Forestry Training Institute (UFTI) is now serving to alter this situation. FDA feels that this two-year technical school is providing good training for future forest rangers. This same institution also offers short courses for labor supervisors. UFTI is described below in section I. C.

I. B. 4. Experience with Donor Organizations

The FDA has had considerable experience with international donors since its establishment in 1976. In fact, the impetus for establishing an independent FDA came from an FAO/IBRD Cooperative Mission to Liberia in early 1976.

While the U.S. foreign aid program played a major role in Liberian forestry in the late 1940s and 1950s, the Federal Republic of Germany (FRG) has been the major bilateral donor since 1970. The West Germans conducted a forest inventory and helped to develop a forest management plan in the 1960s and early 1970s.

Recently the FRG has been contributing to Liberian forestry on a number of fronts. The West German firm ATLANTA is staffing a Documentation and Market Promotion Center for forest products at FDA. The Center analyzes timber market trends, tariff notes, and new regional and international marketing possibilities. ATLANTA is also studying the use of wood waste for the generation of electricity. The FRG grant for these projects is \$1.14 million for 1979-1982. Three German technicians are involved.

In 1980, the FRG granted FDA \$5.14 million, in part for training Liberian foresters in Germany and for sending German forestry advisors to Liberia. Mr. Hans Woel is the first member of the German party to arrive in Liberia. He is experimenting with indigenous species at Zwedru. The sum of \$3.7 million has been programmed for the establishment of a pilot logging and saw-milling training center at the Bomi Hills Reforestation Project. Another goal of this project is to establish research stations in three different ecological zones within the country.

The FRG has also granted \$1.8 for technical assistance for the Cape Mount Pulpwood Plantation. The goal of this project is to develop a 70,000 hectare plantation which will ultimately support a pulpmill in Liberia. The project

is experiencing difficulties. Direct sowing techniques are being used in planting Pinus ocarpa and Pinus caribaea in plastic pots. Poor germination rates are being experienced and some of the 1980 plantations are almost total losses. Drainage of the nursery is also a problem. Mechanical site preparation appears to be removing a great deal of the top soil and that which remains has a nutrient deficiency. Another problem is labor. Indigenous people have not supported the project and as a result, labor must be brought in from Bomi Hills.

This Cape Mount Pulpwood Plantation grant is part of a much larger multilateral grant which involves the World Bank and the African Development Bank in addition to the GOL and the FRG. The total amount of the program is \$17.5 million, with the following contributions:

GOL	\$4.7m for personnel and contingencies
World Bank	6.0m for strengthening FDA
African Development Bank	5.0m for FDA vehicles and capital equipment at the Cape Mount Pulpwood Plantation
FRG	1.8m for technical assistance at Cape Mount

In addition, the UN World Food Program is supplying \$623,000 worth of rice for FDA reforestation workers over a five year period (1980-1984).

Aside from Peace Corps/Liberia, the only American involvement with FDA is through the AID/L funded Nimba County Rural Technology Project, which is managed by Partnership for Productivity (PPF). A part of this project has been the development of a steel charcoal kiln which would be promoted by FDA, especially to reduce wood waste at sawmills. Experiments were conducted with two kilns, and one is still in use in Nimba County. However, FDA has not been able to follow through on this project due to lack of funds.

I. C. Mano River Union Forestry Training Institute (UFTI)

The Mano River Union (MRU) is an agreement signed among Liberia, Sierra Leone, and Guinea in 1976 for a variety of purposes, including customs, communications, education, and forestry.

The MRU has established the Union Forestry Training Institute (UFTI) for the training of forest rangers and forest industry workers at mid-level. UFTI has students and staff from both Sierra Leone and Liberia. The Institute is located at Bomi Hills in Montserrado County. Bomi Hills is the site of a former iron ore mine which closed in 1977. GOL has chosen the area as the site of a number of programs in order to preserve the area from economic collapse. Staff members, including PCVs, live in the old mining compound. A new campus for UFTI is under construction. The Institute buildings are designed to be surrounded by experimental plots, an arboretum, and a nature trail.

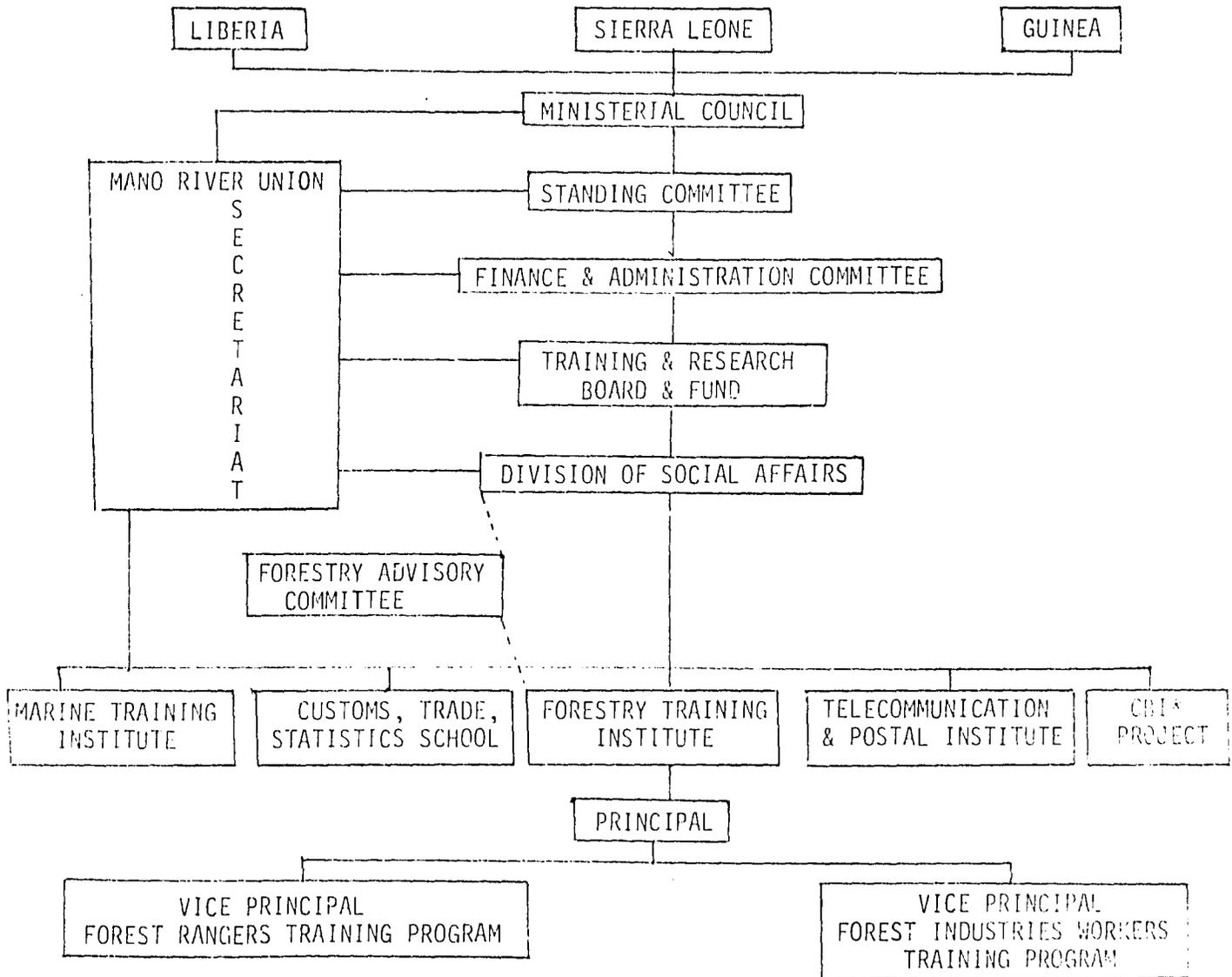
The activities of UFTI are supervised by the MFU Division of Social Affairs, which is responsible to the Training and Research Board and Fund. This Board and Fund is one of several committees which report to the Finance and Administration Committee, which in turn is responsible to the Standing Committee of the Ministerial Council of the MRU, which gives final approval for policy and budgets. This hierarchy is outlined in the organizational chart on the next page.

The entire MRU hierarchy is serviced by the Secretariat. In addition, the UFTI is overseen by a Forestry Advisory Committee on policy matters.

UFTI is headed by a principal who supervises the Central Administration, which provides office and logistical support. The principal is helped by an administrative assistant. The two programs are headed by vice-principals, one

for the Forest Rangers Training Program and one for the Forest Industries Workers Training Program. Outlines of these programs are attached as Appendix E.

UFTI Organizational Chart



* CURRICULUM, INSTRUCTIONAL AID, AND BOOKS

The entire budget of the MRU for FY 81 is \$5,066,290. About 10 percent of this, approximately \$500,000, is budgeted for the UFTI. Until this year, the UFTI has served only Liberia and Sierra Leone. Staff members as well as students are from the two countries. The Forest Rangers program is supported by equal contributions from Liberia and Sierra Leone, as well as from foreign donors. The German Government provides five to seven scholarships per year, and the Dutch Government provides ten scholarships per year. The British Government provides services of a forestry training advisor.

The contributions of the MRU member states to the Union as a whole have been uneven, and this has been reflected in the actual budget allocations received by UFTI.

The Forest Ranger program was started in Sierra Leone in 1967 for its own Forest Service Staff. In the mid-1970s, Liberia was conducting a similar program at the University of Liberia. When the MRU was formed, it was decided to put the two programs together into a two-year course. Twenty students a year are admitted to the program, so that at any given time about 40 forest ranger students are in residence at UFTI. There are currently 38 students in residence. The Forest Ranger program has 13 full-time and part-time instructors, including five PCVs.

The Forest Ranger curriculum begins with English, mathematics, and biology to bring the students up to an equal level. Technical forestry subjects, including tree identification, nursery techniques, and mapping, are taught during the second term. The first year ends with three to four months of field practice with FDA or a concessionaire. (Sierra Leonean students return to their own country for field practice.) The second year, like the first, has three terms. In the first term, harvesting operations, including log scaling, stock survey, and forest road construction, are taught. This is

followed by four months of supervised field training. In the final term, students are taught forest management and law.

Forest Ranger students must have high school degrees and forestry experience. Rural students are chosen over urban ones. Until this year, all Liberian students have been FDA workers, but this has changed. Students range in age from 18 to 25.

The Forest Industries Workers Program was established in 1977 to develop national forestry manpower to replace expatriate workers in the concessions. The Forest Industries Workers Program is supported by equal contributions from Liberia and Sierra Leone. These contributions are supported by timber concession revenues in the two countries.

The first project of this program was the training of mobile training teams which were sent into the concessions to demonstrate what the program could do. The 20 trainees (seven from Liberia and five from Sierra Leone) were taught pedagogical skills and their technical skills were updated. The course lasted 15 months and the teams have been in the field for over a year. The function of the mobile training teams is to convince the concessionaires that UFTI can produce skilled workers who will benefit them.

The Forest Industries Workers Program is now preparing to train newcomers to forestry and to upgrade the skills of those already working in the concessions. The courses offered in the program include chain saw operation and mechanics, forest survey and enumeration, scaling truck and tractor mechanics, and saw doctoring. The courses range from three weeks to twenty weeks in length. The students receive certificates of proficiency in the skills which they have studied.

UFTI has approached the concessionaires about the kinds of skills they need in their workers. The response to a questionnaire sent out has been

slight, probably because the concessionaires prefer unskilled workers with lower pay rates. The mobile training teams have been sent out to overcome this thinking, and according to the head of the program, the concessionaires have been impressed.

Curricula for both the Forest Ranger and Forest Industries Workers programs are being revised. The latter program anticipates training supervisors for FDA's Bomi Wood Project.

The most immediate future plan for UFTI is to complete its new building and the surrounding grounds.

Another imminent plan is the incorporation of Guinea into UFTI programs. The exact details have not been completed, particularly with regard to the language of instruction, since Guineans speak French.

The assessment team discussed possible future projects which might involve PC/L with the two vice-principals and the forestry training advisor of UFTI. These include:

- o courses in agro-forestry, based on research on the use of potential forest products which are presently destroyed in slash-and-burn agriculture; and on the use of trees as shade for coffee and cocoa;
- o training for game wardens, which has been requested by FDA;
- o forestry public relations teams to publicize the importance of forestry.

These future programs are seen as involving the Bomi Hills region surrounding UFTI. Donor assistance for both personnel and equipment would be needed for all of them. UFTI has not received support from AID/L, but has been involved with PC/L. Five of the instructors at UFTI are PCVs. One of these five is a PCV forester who teaches topographic surveying and mapping. Other PCVs teach English, mathematics, and meteorology. In the past, a PCV taught botany.

UFTI provides housing, curriculum materials, and office support for PCVs.

As mentioned above, UFTI has received support for its Forest Ranger Training Program from the Dutch and German Governments in terms of scholarships. Britain has provided a senior forestry training advisor, Mr. John D. Leefe. UFTI expects the present levels of support to continue and would like them to increase so the programs can be expanded.

II. PEACE CORPS INTEREST AND EXPERIENCE

A. Personnel and Material Resources

The PC/L staff member involved in forestry projects is Aaron Marshall, Associate Peace Corps Director (APCD) for agriculture and forestry. He is a Liberian hired locally. He received training at the University of Liberia School of Agriculture, and has worked as an assistant manager of a B.F. Goodrich rubber plantation.

PC/L has not provided material support for the projects of its forestry volunteers. Some library materials are available from the PC/L office in Monrovia, and the APCD has access to other materials on forestry, particularly from the library at the School of Forestry, University of Liberia. A list of PC/L programs and volunteers is attached as Appendix C.

B. Peace Corps Experience in Forestry/Natural Resources Projects

Since the creation of FDA in 1976, PC/L has reentered forestry work in Liberia. Rather than being involved in individual projects, PCVs have been placed in various divisions of FDA. There are currently six PCV foresters in-country. Three are newly arrived, and were sworn in during the assessment team's visit. Three have been in Liberia since December 1979, and are due to complete service in February, 1982.

One volunteer is working with the Utilization Division in Greenville, the port from which most Liberian timber is exported. He is involved in the training of log scalers and in improving log scaling techniques. The second volunteer is engaged in the FDA reforestation project at Grassfield in Nimba County. He has been working principally as a foreman of a planting crew. He is also conducting a small silvicultural experiment.

The third forestry volunteer is working as an instructor at the UFTI, where he is teaching surveying and mapping.

A fourth PCV was working in the planning department at the FDA offices in Monrovia, but became dissatisfied with his work and eventually transferred to another country in Africa.

The assessment team interviewed two of the three forestry volunteers presently working in-country. They both expressed frustration over the lack of counterparts and technical and personal support (equipment and vehicles) from the FDA.

PC/L forestry projects have a geographical focus in that they are placed in areas where FDA activity is intense: Greenville, the main timber port city; and Bomi Hills and Grassfield, where FDA has nurseries and reforestation projects. The government chose Bomi Hills and Grassfield as sites for the FDA activity in part because they are mining areas whose mines have or will soon be depleted.

PC/L is interested in expanding its involvement in forestry as FDA programming capabilities improve. However, the PCD is frankly concerned that U.S. budget reductions will make this impossible.

PC/L has been involved with a number of joint projects with AID and other development organizations. These projects include the Micro-Hydro Electric Project in Lofa County and the Rural Information System Project.

III. AID INTEREST AND EXPERIENCE

A. Current Objectives in Rural Development and Natural Resources

AID/L is not currently involved in forestry projects in Liberia and does not anticipate any projects in the near future.

In the past, AID/L had been deeply involved in Liberian forestry. American aid involvement began with the first national forest survey in 1947. Americans helped to draft the Forestry Acts of 1953 and 1957, which established national forestry policy. Presently, the only AID/L-funded project which has a relationship to FDA is the charcoal kiln experiment by Upper Nimba County.

AID/L's current program emphasizes rural development, with grants and loans in FY 1980 totalling about \$28 million. The next largest category, education and human resources, totals \$23 million, while institutional development received \$18 million. The health sector received \$5.6 million. As mentioned above, there were no grants or loans for forestry and natural resources purposes.

A list of AID/L projects is attached to this report as Appendix D. In summary, AID/L's rural development program has emphasized increased food production as a goal. Among the most important projects to reach this goal are technical assistance toward a revamping of agricultural policy and the development of training for rural extension agents.

B. Relationship with Other Donor Organizations

AID/L attempts to coordinate its efforts with those of other major donor agencies through regular meetings.

In addition, AID/L has funded several projects through PVOs. Two of its largest grants are to PVOs. The Rural Development Training Institute is funded through the Domestic and Missionary Society of the Protestant Episcopal Church, USA, which directs Cuttington College.

An even larger grant (\$3.26 million) has been given to Partnership for Productivity (PPF) to create new enterprises in Upper Nimba County, where the Yekepa Mine complex will shut down in the next several years. This five-year project involves agricultural improvements, fish ponds, business advice to local entrepreneurs, and the development of new rural industries such as handicrafts and charcoal production. Two PCVs are involved.

AID has also given a small grant (less than \$2,500) to Opportunities Industrialization Center International (OIC/I) for a technical training institute at Klay, near the Bomi Hills site.

IV. PEACE CORPS VOLUNTEER QUALIFICATIONS, TRAINING, AND COUNTERPARTS

PC/L and FDA are in agreement that forestry volunteers should have a B.S. in forestry, but are open to the possibility that the right skill-training program could produce appropriate forestry volunteers. There is evidence that individuals with a forestry background would best meet FDA's current program requirements.

PC/L has worked with skill-trained volunteers in its fish pond, rural water, and appropriate technology programs. The skill training has taken place in the United States: fish culture in Oklahoma and well-drilling in California. PC/L also conducts in-service workshops on a regional basis where PCVs learn skills needed for secondary projects.

PC/L has just finished conducting an experiment in forestry training by comparing methods of training volunteers. In the first session in early 1980, training was contracted out to UFTI at Bomi Hills. In the second session in early 1981, training was conducted by PC/L staff and guest speakers at the Boystown Training Center. Questionnaires were given to both trainees and trainers to determine their satisfaction with the sessions. Comments from

volunteers indicated that discussions which focused on forestry operations in the field were more useful than lectures on general forestry. Because the second group of volunteers has only recently commenced their field assignments, it is premature to compare the two training methods.

PC/L staff and host country foresters feel that pre-service training should be conducted in an environment which typifies forestry conditions in Liberia, so that the skills learned can be immediately applicable. Host country officials indicated a need for PCVs with skills in surveying, mensuration, nursery management, and mechanical maintenance. PCVs working in agriculture and rural development could benefit from skill-training in agroforestry, especially nursery skills, tree mangement, and intercropping. In specific areas, village woodlots coupled with charcoal production would be suitable secondary projects for PCVs.

Highly qualified foresters provided by the World Bank and the German Government are working with counterparts at FDA in specialized areas, such as remote sensing and market analysis. Liberian counterparts in the classical sense as replacements for PCVs do not currently exist due to the lack of skilled personnel at similar levels.

The training needs expressed by Liberian foresters consist of tasks utilized at the lower and middle levels of forest management. The UFTI has been established to meet these needs, and any PC/L forestry training for Liberian nationals would have to take this already existing structure into account.

In addition to UFTI, possible training facilities are available at the Boystown Training Center, at the AID/L-sponsored facilities at Suakoko, and Cuttington College, and at the University of Liberia's School of Forestry at Johnsonville.

V. FORESTRY PROJECT PROGRAMMING

The most basic issue in forestry programming in Liberia is the approval of the Forestry Sector Plan by the People's Redemption Council and its support of FDA as the agency for forest management. The PRC needs to provide FDA with political and fiscal support.

REFERENCES

1. Phase I Environmental Profile of Liberia. Library of Congress, Science and Technology Division. 1980. Washington.
2. A Summary of Liberia's Energy Sector. Development Sciences, Inc. USAID. 1980. Washington.

ITINERARY

February 23, 1981

Aaron Marshall, APCD/Agriculture

February 24, 1981

Charles Martin, PCD

Joshua S. Sawyerr, FDA, Manager, Planning and Research

Jack Cornelius, AID/L

William Jadwin, AID/L

Charles Stickland, AID/L

Loreen Forester, PCV/Agriculture

February 25, 1981

Aaron Marshall, APCD/Agriculture

Patrick Harrington, APCD/Rural Development

Moses Walters, FDA, Regional Forester

David Phillips, PCV/Forestry

Scott Harlow, PCV/Agriculture

Joseph Kirchner, PCV/Agriculture

Frank Manley, PFP, Business Consultant

February 26, 1981

Joshua S. Sawyerr, FDA, Planning & Research

Christopher Williams, FDA, Plantation Manager

George Butler, PFP, Yekepa Project Director

Randall Cooper, PFP, Charcoal Kiln Project

Aaron Marshall, APCD

FDA Nursery Workers

February 27, 1981

William Bolten, AID/L

Theodore Jeune, PCV/Agriculture

February 28, 1981

Joshua Sawyerr, FDA

Ben Tonjay, FDA, Regional Forester

Charles Miller, FDA, Utilization Officer

Sahn P. Vanney, FDA, Nursery Manager

John T. Harding, UFTI, Vice-principal

James e. M. Turay, UFTI Vice-principal

Ahamadou Bsjonna, Charcoal project manager

Aaron Marshall, APCD

March 1, 1981

Bruce Gowdy, PCV/Forestry

Steve Jerrett, PCV/Instructor

Stanton Brown, PCV/Appropriate Technology

John Leefe, UFTI, Forestry Advisor

March 2, 1981

Ernest Dow, FDA, Forestry Advisor
Kwame Okah, University of Liberia, School of Forestry

March 3, 1981

Charles Martin, PCD
Ernest Dow, FDA
Thomas Gogla, FDA, Forest Administrator

March 4, 1981

A. Ly, UNDP
Shad G. Kaydea, FDA, Managing Director
Joshua S. Sawyerr, FDA
John Leefe, UFTI

March 5, 1981

Joshua S. Sawyerr, FDA
Henry Woy, FDA, Silviculture Officer
Napoleon Blasuwobh, FDA, Nurseryman

March 6, 1981

Charles Martin, PCD
Aaron Marshall, APCD

APPENDIX B

ASSESSMENT TEAM BRIEFING ISSUES
TO BE DISCUSSED
WITH
PEACE CORPS, AID AND HOST COUNTRY MINISTRY STAFF

The following topics should be discussed with Peace Corps staff and volunteers, AID mission staff and Host Country Ministry staff. The discussion on the topics should follow the outlines as closely as possible in order to obtain comparable data from each country. All information obtained should be cross referenced as much as possible from other sources for an objective viewpoint.

I. HOST COUNTRY MINISTRY COMMITMENT/EXPERIENCE

A. Host Country Government's priorities in development programs

1. What have been Host Country Government's development priorities in the past 3 - 5 years: Forestry/Natural Resources, Education, Health, etc?
2. What types of programs (Education, Health, Water, etc.) has Host Country Government most actively pursued from donor agencies in the last 3 -5 years?
3. What are the current developmental priorities of the Host country Government? Give examples.
4. What are projected needs as perceived by Host Country Ministry?
5. What are the projected developmental priorities for the Host Country Government in the near future (1 - 3 years)? Give examples. To what extent are donor agencies involved in accomplishing those priorities?
6. If answer to 5 is different than 1 or 2, why?

B. Forestry Department or other Government supported forestry efforts

1. What is the institutional structure of the Department of Forestry? (Include an organizational chart.)
2. What type of support does the Forestry Department receive from the parent ministry and the Host Country Government in general?
3. What are the staff/material resources of the current Forestry Department?
 - o budget
 - o education of employees
 - o training of employees
 - o forestry schools in the country
 - o research capabilities/current research activities (involving whom, what is major thrust of research)?
 - o staff stability
 - o audio-visual, technical files/library, forestry equipment
4. What types of forestry programs and projects has the Department of Forestry focused on in the past 3 years? Currently involved in? (Anticipate next 3- 5 years.) Where are these located? List examples, e.g., village woodlots, watershed management.
5. How is the Forestry Department perceived by the general public? e.g., tax collector, enforcement officer, public servant?
6. Future plans.

- C. Host Country Department of Forestry past/current experience in forestry projects with PC or AID (Separate response for each agency)
1. What type of forestry programs/projects has this arrangement usually entailed? Examples.
 2. Is there a geographical focus/distribution of these projects?
 3. What segment of society (ethnic, social, sex) have these programs/projects benefited the most? Is this going to change to any degree?
 4. What type of support has the HCM provided PCVs in these projects?
 - o material
 - o labor
 - o office space/support
 - o technical support (use of labs, etc.)
 - o dollars
 - o transportation
 - o training
 5. What are Host Country Department of Forestry's attitude and actual resource capability toward providing counterparts for PCVs?
 6. Have PCV counterparts been used? Seldom, usually, almost always?
 7. What is the institutional level of the PCVs' counterparts?
 8. What type of qualifications does the Department of Forestry require of its PCV counterpart?
- D. Host Country Department of Forestry past/current experience with private voluntary organizations and other international donor agencies
1. What are the organizations and key personnel that have been involved (past 3 years)?
 2. What type of programs/projects have taken place/are taking place?
 3. What are future expectations for programs/projects (within 5 years)?

II. PEACE CORPS INTEREST/EXPERIENCE

A. Personnel Resources

1. Are there currently staff members involved in forestry and/or related projects?
2. If so, what are their backgrounds and terms of service?
3. What plans exist for replacing them?
4. If there currently are no such staff members, what, if any, plans exist for responsibility for a forestry project?

5. What are the names and numbers of volunteers, by project, and their completion of service dates and replacement plans?

B. Material Resources

1. What type of project material support is available to volunteers from Peace Corps?
2. What type of audio-visual, technical files, library, support is easily accessible to PCVs from the Peace Corps office?

C. Peace Corps experience in forestry/natural resources projects

1. What types of forestry projects has Peace Corps been involved in in the last 3 years? Examples.
2. What are the current projects Peace Corps is involved in?
 - o are they progressing as planned? If not, what changes have been necessary?
 - o how many volunteers are involved in these projects?
 - o what degree of counterpart participation exists?
 - o what level of technical support do the PCVs/counterparts receive from PC/HCM?
3. Is there a geographical focus to PC forestry projects? If so, why?
4. To what degree does PC in-country see itself capable of programming/support for new project development or expansion of old projects?
5. What constraints do they see? What PC/Washington support will they need?

D. Peace Corps experience in collaborative projects, of any kind, with AID

1. Within the last 3 years, what type of programs/projects have been developed jointly by PC and AID?
2. Who initiated this activity and at what level (central, regional, local)?
3. What degree of involvement (money, labor, material) has existed from both parties?
4. What is Peace Corps' general perception of this type of activity?

E. Peace Corps' relationship with Host Country Ministry and AID

1. What has been Peace Corps' relationship with Host Country Ministry and AID in general?
2. Are there foreseeable changes in this relationship due to changes in budget, staff, or program priorities by any entity?

3. Are there specific issues in common/different?
- F. Peace Corps' relationship with PVOs, NGOs, and other donor agencies.
1. What is Peace Corps' current relationship and past experience with PVOs, NGOs, and other donor agencies (including key personnel)?
 2. Has Peace Corps been able to effectively utilize PVOs, NGOs, and other donor agency personnel/material resources?
 3. What is future potential for material/technical support from these agencies?

III. AID INTEREST/EXPERIENCE

A. Staff Resources

1. Does AID currently have staff dealing with forestry?
2. If so, what is their background and terms of service?
3. What, if any, plans for replacing or adding forestry related staff exist?

B. Technical Resources

1. What technical resources (e.g., libraries, connections with research organizations, private consultant resources) does AID have that could assist PASA related activities?
2. Who has or does not have access to these technical resources?

C. AID experience in forestry/natural resources projects

1. What types for forestry/natural resources related programs/projects has AID been involved in in the last 3 years?
 - o degree of involvement
 - money
 - labor
 - material
 - o principle beneficiaries in society
 - o most important outcome
2. What type of forestry/natural resources related programs/projects is AID currently involved in?
 - o degree of involvement
 - money
 - labor
 - material
 - o principle beneficiaries in society
 - o anticipated outcomes

3. Is there a general philosophical orientation of these programs/projects?
 4. Is there a common development strategy to these programs/projects (e.g., institution building)? Give examples.
 5. Who is primarily undertaking program/project activities? Give examples.
 6. What is AID's philosophical orientation toward the use of counterparts?
 7. Is the orientation reflected in the actual projects?
 8. With what priority does AID view future/expanded efforts in the forestry area? How is that commitment evidenced?
 9. Is there a geographical focus to AID activities?
- D. AID experience in collaborative projects, of any kind, with PC, PVOs, and NGOs
1. What types of programs/projects have taken place?
 2. What organization initiated this collaborative effort and at what level (i.e., central, regional, mission)?
 3. What was the degree of involvement by each participating organization (i.e., money, labor, material)?
 4. What were/are the outcomes of these activities (e.g., primary beneficiaries in society)?
 5. What is AID general perception of this type of activity?
- E. AID's relationship with HCM and Peace Corps
1. What has been AID's relationship with PC and HCM in general (e.g., assess AID's attitude and understanding of 3 goals of Peace Corps)?
 2. Are there foreseeable changes in this relationship due to change in budget, staff, or program priorities by any entity?
 3. Are there specific issues in common/disagreement?
- F. AID's relationship with PVOs
1. What is AID's current relationship and past experience with PVOs, NGOs and other donor agencies?
 2. What type of contributions have existed in these efforts (e.g., key personnel, material, dollars, technical resources)?

IV. TRAINING

A. Peace Corps Volunteer Training

1. What is the attitude of PC, HCM, and AID staff toward skill trained volunteers in Forestry/Natural Resources programs/projects?

2. Have PC, HCM, and AID worked with trained volunteers?
If yes, what type of project, if no, why not?
3. If Peace Corps has used skill-trained volunteers in any sector, where has the skill-training taken place (i.e., SST or in-country)?
4. What suggestions do PC staff and volunteers, HCM and AID have for pre-service and in-service PCV training (especially skill training) for forestry programs/projects (e.g., skill areas)?
5. What type of in-service forestry training could be provided for PCVs currently working in other programs?

B. Peace Corps volunteer counterpart training

1. What degree of involvement do counterparts have in current or projected PC, AID, or other PVO or donor agency forestry projects?
2. What is the attitude of PC, HCM, and AID toward PCV counterpart involvement in PCV pre-service and in-service training?
3. What are each entity's principal concerns about this issue, such as financial, support, technical material presented, language, travel, time away from work, etc.?
4. Are there appropriate training facilities, either Peace Corps, AID, HCM, or private, in-country or within the geographical region?

V. FORESTRY PROJECT PROGRAMMING

1. What are the tentative forestry programming issues that PC, HCM, and AID perceive as needing to be addressed before an actual new or expanded project could be implemented?
2. Which entities need to address which of these issues?
3. What further information does each of these entities feel it needs from Peace Corps/Washington, in order to determine the feasibility of further participation in the PASA?

MINISTRY OF ACTION, DEVELOPMENT & PROGRESS

January 1, 1981

<u>NAME</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/CTS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
1. Allen, Scott	669-79-10		6/79 9/81	Greenville Sinoe County	Action, Dev. & Progress Rural Water Technician
2. Brown, Stanton Herrick	669-80-02		11/80 11/82	Boni Hills Montserrado Co.	Ministry of Action, Dev. & Progress Rural Water Technician/Wall Drilling
3. Durette, Gregory A.	669-79-04		11/80 11/82	Monrovia Montserrado Co.	Ministry of Action, Dev. & Progress Rural Water Technician/A?
4. Gifford, John	669-79-01		6/79 9/81	Harper Maryland Co.	Action, Dev. & Progress Rural Water Technician
5. Lucas, Gail	669-79-01		6/79 9/81	Boni Hills Montserrado Co.	Action, Dev. & Progress Rural Water Technician
6. Lucas, Jay	669-79-01		6/79 9/81	Boni Hills Montserrado Co.	Action, Dev. & Progress Rural Water Technician
7. Springsteen, Howard	669-79-01		6/79 8/81	Monrovia Montserrado Co.	Ministry of Local Govt. Administrative Assistant/CARE/LISERL
8. Wilson, Jack	669-80-01-04		1/79 12/81	Zorzor Lofa County	Action, Dev. & Progress Rural Water Technician

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ROSTER OF VOLUNTEERS
MINISTRY OF AGRICULTURE

<u>NAME</u>	<u>PROGRAM NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
<u>AGRICULTURE, VARIOUS PROJECTS</u>					
1. Mandra, Loretta	669-80-01-06		1/80 12/81	Harper Maryland County	Ministry of Agriculture
2. Reynolds, Marcia	669-80-01-07		1/80 12/81		
3. Trotter, Elizabeth	669-78-03		7/78 8/81	Kpain Ninua County	Ministry of Agriculture General Agriculture Productionist
<u>AGRICULTURE PLANNERS</u>					
1. Forester, Loren	69069-81-03		12/79 2/82	Monrovia Montserrado County	Agriculture Planner
2. Harlow, Scott	669-81-01-07		12/79 2/82	Monrovia Montserrado County	Agriculture Planner
3. Jenne, Theodore	669-77-06-1		1/80 1/81	Monrovia Montserrado County	Ministry of Agriculture Agriculture Planner
<u>VOCATIONAL AGRICULTURE</u>					
1. Frank, Donna	669-81-01-03		1/80 1/81	Sebeh Sinoe County	Vocational Agriculture Teacher
2. Iannone, Kim	669-81-01-02		1/80 12/81	Foya Lofa County	Vocational Agriculture Teacher
3. Lucius, John	669-80-01-05		1/80 12/81	Bakope Lofa County	Vocational Agriculture Teacher
4. Moorer, Jamise	669-80-01-08		1/80 12/81	Beple Lofa County	Vocational Agriculture Teacher
5. Retka, Julie	669-80-01-05		1/80 12/81	Bonal Maryland County	Vocational Agriculture Teacher

*Completion of Service

Best Available Document

<u>NAME</u>	<u>PROGRAM NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL DATE</u>	<u>DEPARTURE DATE</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
<u>AGRICULTURE VARIOUS PROJECTS</u>						
<u>VOCATIONAL AGRICULTURE CONT'D</u>						
5. Washington, Archie	569-80-01-03		1/80	12/81	Butuo Nimba County	Vocational Agriculture Teacher
<u>FISHERIES</u>						
1. Gaston, Barbara	669-79-09		7/79	9/81	Saclepen Nimba County	Ministry of Agriculture Fisheries Technician
2. Kynoch, Rudy	569-79-09		7/79	5/81	Foya Lofa County	Ministry of Agriculture Fisheries Technician
<u>RICE TECHNICIANS</u>						
1. DeGroot, Kirk	669-79-09		6/79	8/81	Gbedin Nimba County	Ministry of Agriculture Rice Technician
2. Francis, Phillip	669-79-09		6/79	8/81	Webbo Grand Gedeh County	Ministry of Agriculture Rice Technician
3. Milton, Gregory	669-79-09		6/79	8/81	Too Town Grand Gedeh County	Ministry of Agriculture Rice Technician
4. Edd, Richard	669-79-09		6/79	5/81	Korwee Nimba County	Ministry of Agriculture Rice Technician
5. Samanow, Michael	669-79-09		6/79	7/81	Salala Bong County	Ministry of Agriculture Rice Technician
6. Ziegler, Matt	669-79-09		6/79	9/81	Sueha Montserrado County	Moah Agriculture Cooperative
<u>COOPERATIVE AUDITORS</u>						
<u>FORESTRY</u>						
1. DeFeut, Robert	669-80-01-02		12/79	2/82	Greenville Sinoe County	Forester

* Completion of Service

<u>NAME</u>	<u>PROGRAM NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
<u>AGRICULTURE VARIOUS PROJECTS</u>					
<u>FORESTRY CONT'D</u>					
2. Gowdy, Bruce	669-80-01-02		12/79 2/82	Boni Hills Montserrat County	Forester
3. Phillips, David	669-80-01-02		12/79 2/82	Grassfield Nimba County	Forester
<u>CREDIT UNION WORKERS</u>					
1. Sims, Cynthia	669-80-07-03		7/80 9/82	Monrovia Montserado	Credit Union Worker
2. Surface Vennie	669-80-07-03		7/80 9/82	Monrovia Montserrat County	Credit Union Worker
<u>LANDS & MINES INSTRUCTOR</u>					
1. Steve Jerret	669-80-07-03		7/80 9/82	Boni Hills Boni Territory	Soil Instructor
2. Curt, Lawrence	669-80-07-03		7/80 9/82	Boni Hills Boni Territory	Cartography Instructor
3. Lynn, Hoskins	669-08-07-03		7/78 9/82	Monrovia Montserrat County	Geologist
<u>FISHERIES</u>					
1. Kowalecki, Charles	669-80-04-04		7/80 9/82	Gbarnga Bong County	Fisheries Technician
2. Cecil, Barbara	669-80-04-04		7/80 9/82	Kelahun Lofa County	Fisheries Technician
<u>RICE EXTENSION</u>					
1. Benson Serena	669-80-07-03		7/80 9/82	Bomboja Cape Mount County	Rice Technician

*Completion of Service

ROSTER OF VOLUNTEER JANUARY 1981
MINISTRY OF EDUCATION

<u>NAME</u>	<u>PROGRAM NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COE DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
<u>SECONDARY EDUCATION</u>					
1. Adams, Donald	669-79-12-06		1/79 12/81	Vokjiana Lofa County	Vokjiana Multilateral High School Math
2. Anderson, Terry	669-80-01-06		1/80 12/81	Wigota Wig County	Wigota Senior High School Biology/Chemistry Teacher
3. Carter, Kristen	669-79-12-02		1/79 12/81	Zabor	Senior Teacher Training Institute
4. Boesch, Richard	669-79-12-06		1/79 12/81	Zabor Lofa County	Senior Teacher Training
5. Davis, Charles	669-80-01-06		1/80 12/81	Funfili Bong County	Funfili Junior High School Math Teacher
6. Fackler, Allan	669-80-01-06		1/79 12/81	Wym Hills Wym Territory	Wym & Various High Schools Health & Biology Teacher
7. Almad, Edward	669-79-12-06		1/79 12/81	Panama Sinoe County	Panama Junior High School Science
8. Jenkins, Thomas	669-80-01-06		1/80 12/81	Tanpita Nimba County	Tanpita Memorial High School Math Teacher
9. Hanna, Dionne	669-80-01-06		1/80 12/81	Robertsport Cape Mount County	Robertsport High School Health/Biology Teacher
10. Jansen, Suzanne	669-79-12-06		1/79 5/81	Greenville Sinoe County	Sinoe High School Birmingham Junior High School Health
11. Hawkins, Roberta	669-80-01-06		1/80 12/81	Bahn Nimba County	Bahn High School Biology Teacher
12. Heic, Karen	669-80-01-06		1/80 12/81	Zowienta Bong County	Zowienta Junior High School Health/Biology Teacher
13. Hendrickson, William	669-80-01-06		1/80 12/81	Bopolu Lofa County	Bopolu High School Math Teacher
14. Hippe, Richard	669-80-01-06		1/80 12/81	Kongo Cape Mount County	Kongo Junior High School Science Teacher

*Completion of Service

<u>NAME</u>	<u>PROGRAM NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
<u>SECONDARY EDUCATION CONT'D</u>					
14. Kammordfiener, Michael	669-80-01-06		1/80 12/81	Bowah Maryland County	Bowah Junior High School Science & Math Teacher
15. Krainer, Joyce	669-80-01-06		1/80 12/81	Butuo Nimba County	Butuo Junior High School Biology & Science Teacher
16. Laramuente, Jaime	669-79-12-06		1/79 12/81	Grand Cess Maryland County	Grand Cess High School Math Teacher
17. Mendez Melanio	669-80-01-06		1/80 12/81	Marclayville Maryland County	A. Doris B. Henries High School Biology & Science Teacher
18. Matthews, Diane	669-79-10		6/79 9/81	Monrovia Montserrado County	Demonstration School Teacher Ministry Consultant Curriculum
19. Phillips, Jolene	669-79-12-06		1/79 12/81	Sanniquellie Nimba County	Sanniquellie High School Dolo Junior High School Health Teacher
20. Pranton, Barnard	669-80-01-06		1/80 12/81	Foquellie Bong County	Foquellie Junior High School Science Teacher
21. Russel, Primus	669-78-09-06		12/78 12/81	Buehanna Bassa County	Demonstration School
22. Schwartz, Abby	669-80-01-06		1/80 12/81	Graie Nimba County	Graie Junior High School Science Teacher
23. Thompson, Victor	669-80-01-06		1/80 12/81	Gbarma Lofa County	Gbarma Junior High School Science Teacher
<u>TEACHER TRAINING</u>					
1. Runstrand, Mary	669-80-01-06		1/80 12/81	Sanniquellie Nimba County	Reading Teacher Trainer Sanniquellie Curriculum Center
2. Gould, Jeffrey	669-77-12-08		12/77 1/81	Boni Hills Montserrado Co.	Boni Hills Material Center In-Service Teacher Trainer

* Completion of Service

<u>NAME</u>	<u>PROGRAM NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
<u>TEACHER TRAINING CONT'D</u>					
2. Marlowe, Rosalie	669-79-12-02		1/79 12/81	Greenville Sinoe County	Greenville Material Center In-Service Teacher Trainer
3. Tucker, Wade	669-80-01-05		1/80 12/81	Buchanan Bassa County	In-Service Teacher Trainer Buchanan Curriculum Center
4. Venier, Charlotte	669-80-01-05		1/80 12/81	Monrovia Montserrado County	Ministry of Education
<u>VOCATIONAL EDUCATION</u>					
Beale, Tracy	669-80-01-06		1/80 12/81	Voinjara Lofa County	Voinjara Multilateral High School Biology & Home Economics Teacher

*Completion of Service

MINISTRY OF HEALTH

January 1, 1981

<u>NAME</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
<u>PROVENTIVE MEDICAL SERVICES:</u>					
1. Armbruster, Deborah	669-80-12-02		12/79 2/82	Phebe Suakoko, Bong Co.	In-Service Training Doordinator
2. Azarski, James	669-80-12-02		12/79 2/82	Bahn Nimba County	PMS Mobile Clinic
3. Azarski, Nancy (Warner)	669-80-12-02		12/79 2/82	Bahn Nimba County	PMS Mobile Clinic
4. Dinkins, Donna	669-80-12-02		12/79 12/82	Gbonota Bong County	Gbonota Clinic Health Educator/Nutrition Worker
5. Donohue, Marian	669-80-12-02		12/79 2/82	Karnplay Nimba County	Health Education/Nutrition Worker Karnplay
6. George, Kevin	669-78-09-01		10/78 6/81	River Gbch Grand Gadeh County	River Gben Clinic School Health Educator/Nutrition Worker
7. Gerla, Janna	669-80-12-02		12/79 1/82	Gbecohn Bong County	PMS Mobile Clinic Nurse Gbecohn Clinic
8. Hanninen, Constance	669-80-12-02		12/79 2/82	Zlehtown Grand Gadeh County	Health Education/Nutrition Worker Zlehtown Town
9. Kirchner, Joseph	669-80-12-02		12/79 2/82	Yekepa Nimba County	Small Business Facilitator
10. Lamphere, Barbara	669-80-12-02		12/79 2/82	Sokopa Bong County	Sokopa Clinic Health Education/Nutrition Worker
11. Larson, Laura	669-80-12-02		12/79 2/82	Duo Nimba County	Duo Clinic Health Education/Nutrition Worker
12. Martin, Anthony	669-78-09-05		10/78 3/81	Monrovia Montserrado County	Ministry of Health Logistics Officer

* Completion Of Service

<u>NAME</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
13. Martone, Gerald	669-80-12-02		12/79 2/82	Gbartala Bong County	Gbartala Clinic & School Health Educ. Nutrition Worker
14. Munday, Patricia	669-78-09-01		10/78 6/81	Foya Lofa County	Foye Clinic & CARE Wells/Springbox Pr Health Educator
15. Rogers, Norma	669-80-12-02		12/79 2/82	Robertsport Cape Mount County	IST Coordinator
16. Stanton, David	669-80-12-02		12/79 2/82	Sanoyea Bong County	PMS Mobile Clinic Nurse Sanoyea Clinic
17. Suter, Carole	669-80-12-02		12/79 2/82	Zowienta Bong County	PMS Clinic Nurse
18. Totten, John	669-80-12-02		12/79 2/82	Monrovia Montserrado Co.	PMS Administrator Ministry of Health
19. Volk, Peter	669-80-12-02		12/79 2/82	Vayanglay Nimba County	School Health Education/Nutrition W. Vayanglay Clinic
20. Watson, Camille	669-80-12-02		12/79 2/82	Tappita Nimba County	School Health Education/Nutrition W. Mobile Clinis
21. Witt, Martha	669-78-09-01		10/77 12/81	Sokopa Nimba County	Sokopa Clinic Nurse/Clinic & School Health Educatio.
<u>COMMUNICABLE DISEASE CONTROL PROGRAM:</u>					
1. Barnett, Elisse	669-80-12-02		12/79 2/82	Ganta Nimba County	TB Control Team Ganta
2. Berestecky, John	669-80-12-02		12/79 2/82	Monrovia Montserrado Co.	TB Control Clinic/J.F.K. Hospital Monrovia

* Completion Of Service

USAID MISSION TO LIBERIA
SUMMARY OF ACTIVE PROJECTS
FY - 80

DEVELOPMENT PLANNING OFFICE
9/1/80

PROJECT TITLE AND NO.	PURPOSE	OUTPUTS	INPUTS	IMPLEMENTING AGEN'S	LOCATION
A. RURAL DEVELOPMENT					
<p>1. Agricultural Cooperative Development 669-0127 (\$1,400,000 Grant)</p> <p>Start Date: August 1977 Completion Date: March 1981 Initial Year Funding: FY 77</p>	<p>✓ To install an effective agricultural cooperative system servicing operational small farmer cooperatives and forming the basis for the expansion of Liberia's cooperative movement.</p>	<p>-Improved co-op accounting and auditing systems -Package of extension services developed -National legislation affecting co-ops appraised and amended as necessary -Training program for co-op officials, board members, accountants, farmers and managers -Produce marketing standards established -Information network installed.</p>	<p>-Advisory services (contract) -Academic training -Training materials</p>	<p>-Ministry of Agriculture's Cooperative Division -Agriculture Cooperatives Development International (ACDI)</p>	<p>Monrovia</p>
<p>2. Agricultural Research 669-0135 (\$1,300,000 Grant)</p> <p>Start Date: Oct. 1979 Completion Date: 1983 Initial Year Funding: FY 80</p>	<p>To assist the Ministry of Agriculture in developing an adaptive crop, livestock and soils management research and extension system responsive to the needs of the small subsistence farmer.</p>	<p>-National research system developed -Participants trained to conduct/manage food crop and selected livestock research -Viable extension system keyed to the research organization -New varieties released -Local varieties of seed upgraded</p>	<p>-Advisory services (contract) -Academic and on-the-job training -Vehicles -Laboratory equipment -Houses</p>	<p>-Ministry of Agriculture -Agri. Research Institute -U.S. Contractor to be selected</p>	<p>Suakoko</p>
<p>3. Zero Tillage Agriculture 693-0410 (\$263,000 Grant) *</p> <p>Start Date: 1980 Completion Date: 1983 Initial Year Funding: 1980</p> <p>* Authorization anticipated late FY 80 or early FY 81</p>	<p>✓ To test the technical and economic feasibility of a no-till upland rice production system under experimental conditions</p>	<p>-Production, labor cost data permitting evaluation of no-till system</p>	<p>-Commodities -Training</p>	<p>-Ministry of Agriculture Rice division</p>	<p>Upcountry sites to be selected</p>

PROJECT TITLE

AND NO.

PURPOSE

OUTPUTS

- 2 -

INPUTS

IMPLEMENTING AGENTS

LOCATION

A. RURAL DEVELOPMENT

<p>4. Agricultural Analysis and Planning 669-0137 (\$1,500,000 Grant)</p> <p>Start Date: August 1977 Completion Date: March 1981 Initial Year Funding: FY 77</p>	<p>To assist the Ministry of Agriculture in:</p> <ul style="list-style-type: none"> -Development planning -Statistical analysis -Project design and evaluation. 	<ul style="list-style-type: none"> -Project identification, planning, implementation and evaluation 	<ul style="list-style-type: none"> -Advisory services (PASA) -Academic training -vehicles -Office supplies and equipment 	<ul style="list-style-type: none"> -Ministry of Agriculture -USDA PASA Team 	<p>Monrovia</p>
<p>5. Upper Bong County Rural Development 669-0139 (\$6,600,000 Loan)</p> <p>Start Date: January 1978 Completion Date: December 1982 Initial Year Funding: FY 77</p>	<p>Provision of agricultural inputs to increase crop production in the traditional agricultural sector.</p>	<ul style="list-style-type: none"> -Increase in agricultural production -Increase in income 	<ul style="list-style-type: none"> -Extension; crop marketing, coop. development -Feeder roads -Credit, village wells, disease control 	<ul style="list-style-type: none"> -Ministry of Agriculture -Ministry of Public Works -Project Management Unit 	<p>Bong County</p>
<p>6. Upper Lofa County Rural Development 669-0142 (\$5,000,000 Loan)</p> <p>Start Date: November 1975 Completion Date: June 1981 Initial Year Funding: FY 77</p>	<p>Provision of Agricultural inputs to increase crop production in the traditional agricultural sector.</p>	<ul style="list-style-type: none"> -Increase in production of rice, cocoa; -Increase in incomes; -Improved marketing 	<ul style="list-style-type: none"> Extension crop marketing, coop. development Credit; Village wells, disease control 	<ul style="list-style-type: none"> -Ministry of Agriculture -Project Management Unit 	<p>Lofa County</p>
<p>7. Agricultural Credit Bank 669-0145 (\$1,550,000 Grant)</p> <p>Start Date: March 1979 Completion Date: December 1982 Initial Year Funding: FY 79</p>	<p>To institutionalize rural credit and savings channels for small farmers and the agricultural economy at reasonable interest rates.</p>	<ul style="list-style-type: none"> -Bank Development Plan -Rural credit banks established in three counties -Headquarters and branch staff personnel trained -Credit policies/procedures applicable to small farmers and cooperatives operational -Rural Savings Program established -Over-all accounting and control system established 	<ul style="list-style-type: none"> -Advisory services -Academic training -Vehicles -Equipment and supplies 	<ul style="list-style-type: none"> -Chechhi Co. -Ministry of Agriculture 	<p>Monrovia : three counties</p>

PROJECT TITLE AND NO.	PURPOSE	OUTPUTS	INPUTS	IMPLEMENTING AGENTS	LOCATION
A. RURAL DEVELOPMENT					
8. Rural Development Training - ORG/PVO 669-0153 (\$2,900,000 Grant)	Development of mid-level agricultural workers with skills in agricultural management to run projects and transfer technologies to small farmers.	-Fully operational Rural Development Institute -First graduating class (1982) -Institute fully integrated into Liberian educational system (1982)	-Advisory services -Training -Vehicles -Equipment and supplies -Construction	-The Domestic and Missionary Society of the Protestant Episcopal church, USA	Cuttington Collage Bong County
Start Date: August 1977 Completion Date: December 1982 Initial Year Funding: FY 77					
9. Livestock Development (PVO)* 669-0162 (\$600,000 Grant)	✓ To develop an adaptive dairy heifer production.	-Trained dairy technicians -Increased nutrition in the homes -Dairy industry expanded to small farmers -Dairy products available on the urban and rural markets	-Advisory services -Training -Vehicle -Equipment and supplies	-Ministry of Agriculture -Heifer Project International -Winrock International (design & training component)	Montserrado County
Start Date: 1980 Completion Date: 1982 Initial Year Funding: FY 80					
10. Nimba Co. Rural Technology (PVO) 669-0153 (\$3,250,000 Grant)	To increase the agricultural and off-farm incomes of the rural poor in Upper Nimba County. This represents an expansion (Phase II) of activities begun under the Nimba Co. Entrepreneurial Development Project.	-New Non-iron Ore Industry related jobs created -Farm fish ponds built -Small Rural Industrial Enterprises established -New acreage of paddy rice -Craft jobs for local women established -Regular markets for Artisans established	-Advisory services -Training -Vehicles/Maintenance -Equipment and Supplies	-Partnership for productivity	Nimba County
Start Date: 1980 Completion Date: 1985 Initial Year Funding: 1980					

* In planning stages only - Authorization anticipated late FY 80 or early FY 81

PROJECT TITLE AND NO.	PURPOSE	OUTPUTS	INPUTS	IMPLEMENTING AGENTS	LOCATION
A. RURAL DEVELOPMENT					
<p>11. Hand Dug Wells 669-0157 (\$267,000 Grant)</p> <p>Start Date: August 1978 Completion Date: September 1981 Initial Year Funding: FY 78</p>	<p>To institutionalize a self-help hand dug well program providing an adequate supply of safe water at low cost to the more remote Liberian Villages.</p>	<p>-New Wells dug -Clean water in villages -GOC personnel trained in construction and maintenance of wells</p>	<p>-Pickup trucks -Hand tools -Hand pumps -Water testing equipment</p>	<p>-Ministry of Local Government -U.S. Peace Corps</p>	<p>Remote Rural villages</p>
B. HEALTH					
<p>1. Lofa County Rural Health 669-0125 (\$2,599,000 Grant)</p> <p>Start Date: January 1975 Completion Date: September 1980 Initial Year Funding: FY 75</p>	<p>To establish an integrated health and family planning system in Lofa County.</p>	<p>-Medical records system -Physicians assistant training program -Immunization</p>	<p>-Advisory services -Training -Vehicle -Equipment and Supplies</p>	<p>-Ministry of Health -United States Public Health Service (USPHS)</p>	<p>Lofa County</p>
<p>2. Health Management Planning 669-0126 (\$2,500,000 Grant)</p> <p>Start Date: June 1976 Completion Date: September 1982 Initial Year Funding: FY 76</p> <p>In planning stages only.</p>	<p>To assist the Ministry of Health and Social Welfare in health planning, evaluation and personnel development.</p>	<p>-Final Draft of the National Health Plan -Health posts, Centers, clinics and hospitals reporting basic morbidity data -Budget systems by program assessed and installed -County registrars trained -MCHSW personnel trained in Health Planning</p>	<p>-Advisory services -Academic training -Vehicles -Equipment and supplies</p>	<p>-Ministry of Health -Medical Services Consultants, Inc.</p>	<p>Headquarters Monrovia; Project has national focus</p>

PROJECT TITLE
AND NO.

PURPOSE

OUTPUTS

-5-

INPUTS

IMPLEMENTING AGENTS

LOCATION

B. HEALTH

2. Health Management Planning
669-0126 (Cont'd)

-Primary Health Care
Areas established
-Health element for the
overall integrated
rural development
program

3. Expanded Program for
Immunization
693-0410.28
(\$498,000 Grant)

To reduce childhood
morbidity and mortality
by immunizing greater
numbers of children and
pregnant women against
most endemic diseases

-Immunize 75% of children
and mothers in target
areas against 6 endemic
diseases
-Immunize 50% in rest of
country against same 6
diseases

Vaccines
vehicles
Technical Asst.
Other Com-
modities

MOHSW

Rural Liberia

Start Date: 1980
Completion Date: 1982
Initial Year Funding: 1980

PROJECT TITLE

AND NO.

PURPOSE

OUTPUTS

- 6 -

INPUTS

IMPLEMENTING AGENTS

LOCATION

C. EDUCATION AND HUMAN RESOURCES

1. Improved Efficiency
of Learning I
669-0130
(\$4,433,000 Grant)

To develop and test
a system of Programmed
Instruction to increase
the effectiveness of
elementary teachers.

-Sets of prototype
Instructional materials
for all elementary
grades
-Teachers and students
trained in use of
instructional materials
-Revised teacher education
scheme for elementary
grades

-Advisory services
-Academic training
-Teaching materials
and production
equipment
-Workshops for teachers

-Ministry of Education
-Institute of Inter-
national Research
(contractor)

Gbarnga and
twenty scho
communities
located in
rural Liber

Start Date: June 1978
Completion Date: September 83
Initial Year Funding: FY 78

2. Vocational Training
679-0131
(\$5,004,000 Grant)

Restructuring
institutional base at
B.W.I. for producing
middle level skilled
workers,

-Preparation of a job
oriented 3-yr curriculum
-Placement of 500 graduates
annually
-New institutional manage-
ment and administrative
procedures
-Student work programs
-Vocational teacher
training programs

-Advisory services
-Academic training
-Teaching materials
and equipment
-Renovation of B.W.I
classrooms & facilities

-Ministry of Education
-Prairie View A&M Univ.

Booker T.
Washington
Institute,
Kakata

Start Date: August 1978
Completion Date: December
1983
Initial Year Funding: FY 78

3. Youth on-the-job Training
689-0160
(\$125,000 Grant)

To upgrade the current
Youth-on-the-job
Training Program at the
Ministry of Labor, Youth
& Sports (MLYS) enabling
it to place more and
better trained semi-
skilled workers on the
job market.

-Expanded capacity within
MLYS to supervise and
train up to 500 youths
annually
-Administrative staff
trained
-Vocational Training super-
visors trained

-Advisory services
-Short-term US and third
-country training
-Study tours
-In country workshops
-Vehicles and office
equipment
-Training materials

-Contractor to be selected
-Ministry of Labour, Youth
& Sports

Monrovia

Start Date: 1979
Completion Date: 1984
Initial Year Funding: FY 79

PROJECT TITLE
AND NO.

PURPOSE

OUTPUTS

- 7 -

INPUTS

IMPLEMENTING AGENTS

LOCATION

C. EDUCATION AND
HUMAN RESOURCES

3. Youth on-the-job training
669-0160 (cont'd)

-Clerical and support staff
trained
-Policies and procedures
developed
-Training programs developed

4. Rural Information
Systems
669-0134
(\$5,100,000 Grant)
(\$5,100,000 Loan)

To expand and improve the
use of radio in providing
relevant development orien-
ted information to Liberia's
rural population.

-A cadre of trained
Liberians
-radio programs designed,
translated and evaluated
-Materials designed and
evaluated
-Transmitter installed
-Institutional framework
established

-Advisory services
-Long/Short term U.S./
third country training
-Equipment and supplies
-Transmitters

-Ministry of
Information
-Various other
ministries partic-
ipating
-U.S. contractor
to be selected

Monrovia
and Rural
Liberia

Start Date: 1980/81
Completion Date: 1985
Initial Year Funding: FY 80

PROJECT TITLE

AND NO.

C. EDUCATIONAL AND
HUMAN RESOURCES (Cont'd)

5. Liberian Opportunities
Industrialization Center
(LOIC) (PVO)
669-0198
(\$2,247 Grant)

Start Date: 1977

Completion Date: 1982

Initial Year Funding: 1977

PURPOSE

To establish an innovative
manpower training institu-
tion to train unemployed
and underemployed youth in
appropriate labor market
skills.

OUTPUTS

-LOIC Board of Directors
organized
-Liberian technicians
trained
-Liberian Administrators
trained
-Training program estab-
lished

INPUTS

-Advisory services

IMPLEMENTING AGENCIES

-Opportunities Indus-
trialization Center
International (OIC/I)
-Ministry of Labor,
Youth & Sports

LOCATION

Monrovia/
Klay

6. Profile of Liberian
Women 698-0398.11
(\$203,000 Grant)

Start Date: 1979

Completion Date: 1981

Initial Year Funding:
FY 80

✓ To provide basic data
on women in Liberia
to the GOL and to in-
terested donors for
use in influencing de-
velopment decisions
and programs to ensure
Liberian women benefit
from economic develop-
ment. Data from this
project is to form the
basis for National
plan of Action to im-
prove the status of
women.

-Establishment of a
resource center
-Phase I report de-
tailing what exist-
ing information is
available
-Phase II report
providing results
of 3 intensive
studies carried
out in potential
target areas for
women projects
-Identification of
2 discrete projects
that could profit-
ably be undertaken
in Liberia

-US Anthropologist
-Liberian
Sociologist

MPEA
University of Liberia
USAID/Liberia
Peace Corps

Monrovia
Rural Liber

PROJECT TITLE AND NO.	PURPOSE	OUTPUTS	INPUTS	IMPLEMENTING AGENCIES	LOCATION
<u>C. EDUCATION AND HUMAN RESOURCES (Cont d)</u>					
<p>8. African Manpower Development 598-0384.2 (\$150,000 Grant)</p> <p>Continuing Project. Funds made available on fiscal year basis.</p>	<p>✓ To meet critical requirements for managerial and technically skilled manpower by providing training opportunities in Africa and the U.S.</p>	<p><u>FY80 Planned</u> -5 Liberians scheduled for training in the U.S. -50 Liberians scheduled for in-country training</p>	<p>-U.S. and in-country training -2 U.S. instructors for in-country training</p>	<p>MPEA USAID/Liberia</p>	<p>U.S. institutions Cuttington University</p>
<u>D. INSTITUTIONAL DEVELOPMENT</u>					
<p>1. Increased Revenue for Development 669-0132 (\$1,222,000 Grant) Start Date: March 1978 Completion Date: March 1982 Initial Year Funding: FY 78</p>	<p>To assist the Government of Liberia tax commissioners to increase revenues.</p>	<p>-Increase in receipts from real estate taxes and income taxes</p>	<p>-Advisory services -Training in U.S. -Office supplies and equipment -Training in Liberia</p>	<p>-Ministry of Finance -U.S. Internal Revenue Service</p>	<p>Monrovia</p>
<p>2. Low Income Housing I 669-0146 (\$1,672,000 Grant) Start Date: September 1978 Completion Date: June 1981 Initial Year Funding: FY 78</p>	<p>Develop a National Housing policy and expand NHA institutional capacity to design and implement low income shelter projects within that policy framework.</p>	<p>-GCL low cost housing policy established -Shelter projects designed and demonstrated -Services sites completed</p>	<p>-Advisory services -On-the-job training</p>	<p>-National Housing Authority -Clapp and Mayne (Contractor)</p>	<p>Monrovia</p>

PROJECT TITLE

AND NO.

D. INSTITUTIONAL
DEVELOPMENT

PURPOSE

OUTPUTS

- 10 -

INPUTS

IMPLEMENTING AGENTS

LOCATION

3. Low Income Housing
(Phase II)
669-0167
(\$5,000,000 Grant)
Start Date: 1979
Completion Date: 1981
Initial Year Funding: FY 79

To establish and strengthen
a coordinated Liberian oper-
ation to design, implement
finance and manage replicable
shelter projects for lower
income families.

-Staff expanded and trained
-Sites and services (600
to 900 plots)
-Construction materials,
Home improvement and
small business loans

-Advisory services
-(technical assistance)
-Training
-Vehicles
-Equipment and supplies

-National Housing
Authority and NHSB

Montserrado
County

4. Housing Guaranty
(Phase III)
669-HG-002
(\$10,000,000 Loan)
Start Date: 1979
Completion Date: 1984

To establish and strengthen
a coordinated Liberian
operation to design, implement
finance and manage replicable
shelter projects for low income
families.

-Sites and services
(1,100 to 1,400 plots)
-Construction materials
and home improvement
loans
-Upgrading of low income
communities (approx. 5,000
families)

-\$4.0 million for site/
-services
-\$4.0 million for
community
upgrading
-\$1.5 million for loan
programs for construct-
ion materials and home
improvements
-\$0.5 million for second-
ary city pilot project
-Staff assistance as pro-
vided through DG-funded
TA program
-Advisory services

-National Housing
Authority and NHSB

Montserrado
and Lofa
Counties

5. PL 480 Title Food
for Peace

To support GOL meet its
immediate need for rice and
ease the balance of payments
crisis; and provide the time
necessary for the ongoing
efforts to reach fruition
and ease the demands placed
upon the Liberian economy
for imported rice.

-An ease on Liberia's
rice importation and
financial situation.

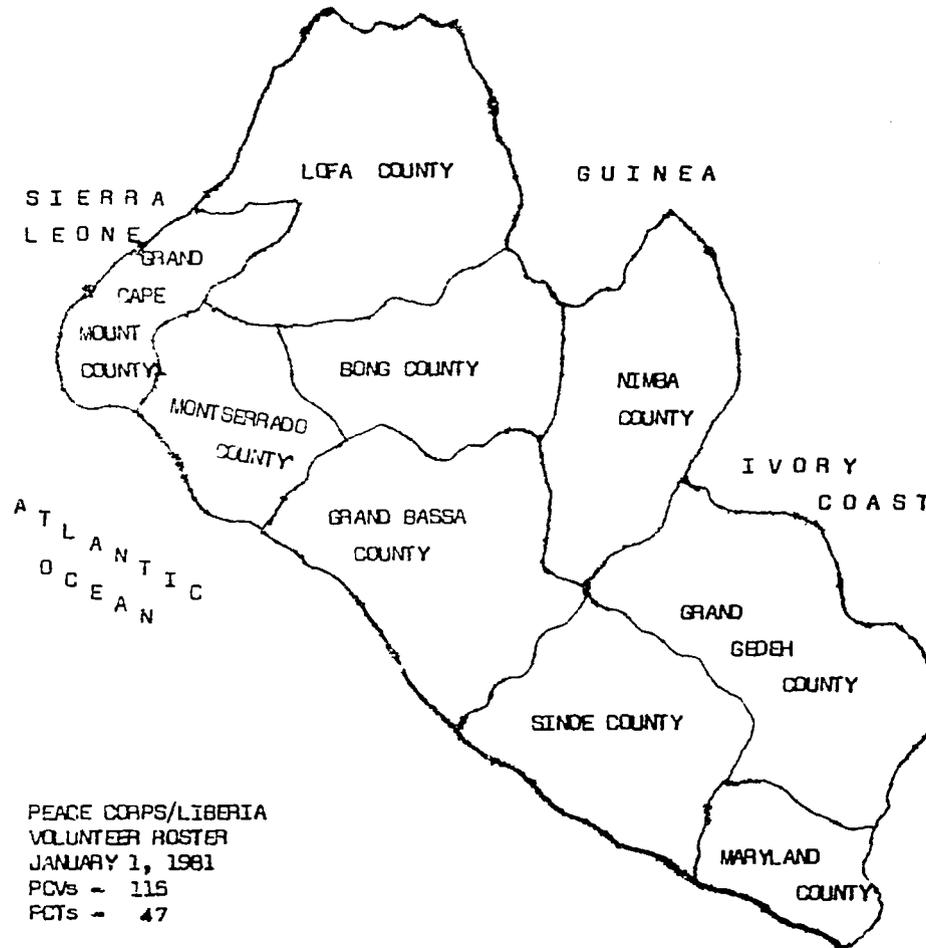
-\$5,000,000⁰⁰ worth of rice
(⁴5,000,000)

-Ministry of Agriculture

Montserrado

UND NO.	PURPOSE	OUTPUTS - 11 -	INPUTS	IMPLEMENTING AGENTS	LOCATION
<u>B. Economic Support Fund</u>					
1. Medical Supplies and Equipment 569-0169 (\$200,000 Grant) Initial Year Funding: FY 80	To assist GOI in procurement of medical equipment and supplies in order to strengthen the diagnostic and surgical capacity of the county hospitals in Liberia	-Liberia county hospitals surgical units improved -The diagnostic capacity of county hospitals strengthened.	-Surgical sets -Laceration and suture sets -Microscopes -Radiographic and Ray System -Darkroom and Radiographic accessories package	-Ministry of Health Social Welfare	County hospitals
.. Liberia Program Grant 69-K-601 (\$5,000,000 Grant) Initial Year Funding: FY 80	To assist the Liberian Government to maintain economic and political stability, and to help alleviate the serious financial crisis facing the country.	-Ministry of Agriculture Education, Health and Social Welfare and Public works maintain adequate budget support.	-\$5,000,000	-Ministry of Planning and Economic Affairs	Liberia
<u>TRANSPORTATION</u>					
1. Rural Roads Phase III 69-0138 (\$5,200,000 loan) Start Date: September 1977 Completion Date: June 1981 Initial Year Funding: FY 77	Construction of road from Brewerville to Bella Yella; design of a road from Bella Yella to Kolahun; construction of a bridge over the Timbo River.	-Greater access to agricultural markets; roads maintained	-Design -Construction	-Ministry of Public works -Amman & Whitney	Brewerville Bella Yella Kolahun

MAP OF LIBERIA



PEACE CORPS/LIBERIA
VOLUNTEER ROSTER
JANUARY 1, 1981
PCVs - 115
PCTs - 47

MINISTRY OF LOCAL GOVT., RURAL DEVELOPMENT & URBAN RECONSTRUCTION

January 1, 1981

<u>RURAL DEVELOPMENT, VARIOUS PROJECT:</u>						
<u>NAME</u>	<u>PROJECT NUMBER</u>	<u>REC'D NO. INDEX</u>	<u>ARRIVAL/COMS DATE*</u>		<u>LOCATION</u>	<u>ASSIGNMENT</u>
1. Duncan, Gary	669-77-01		1/77	7/81	Kamatahun Lofa County	Ministry of Local Govt. Rural Development Worker
2. Dwire, Patrick	669-80-01		11/80	11/82	Robertport Cape Mount County	Rural Water Technician
3. Selby, David	669-80-04		11/80	11/82	Bichanan Grand Bassa Co.	Rural Water Technician/AT
4. Smith, Michelle	669-80-04		11/80	11/82	Kamatahun Lofa County	Community Development - WID/AT
5. Smith, William M.	669-80-03		11/80	11/82	Kamatahun	Community Development
<u>ROADS:</u>						
1. Allen, Curtis	669-77-10		5/79	3/81	Montserrats Montserrats Co.	Action, Dev. & Progress Rural Roads Project
2. Rugh, Douglas	669-78-03		7/78	9/81	Voinjama Lofa County	Assistant County Superintendent's Office Assistant Project Planner
Weenas, Glenn	669-79-10		6/79	3/81	Voinjama Lofa County	Action, Dev. & Progress Rural Roads Technician
<u>VARIOUS PROJECT:</u>						
1. Brodeur, Stephen	669-80-01-04		1/80	12/81	Saclapea Nimba County	Partnership For Productivity
2. Meyer, Thomas	669-80-01-04		1/80	12/81	Grassfield Nimba County	Partnership For Productivity

*Completion of Service

NATIONAL HOUSING AUTHORITY

<u>NAME.</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>ASSIGNMENT</u>
1. Eastman, Willard	66D-80-04		11/80 11/87	Monrovia Montserrat Co.	National Housing Authority Low Cost Housing Construction Advisor

* Completion Of Service

ROSTER OF TRAINEES
MINISTRY OF AGRICULTURE

<u>NAME</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>TEMTATIVE ASSIGNMENT</u>
1. Helland, Scott P.	369-81-11-03		1/81 1/83	Cavalla, FDA Grand Gedeh County	Forester
2. dickerson, Wellard Ross	669-81-11-03		1/81 1/83	FDA, Monrovia Montserrado County	Forester
3. Helland, Elise	569-81-11-03		1/81 1/83	FDA, Nimba Nimba County	Forester
4. Mattson, Paula Lynn	669-81-11-03		1/81 1/83	Buchanan Grand Bassa County	Cooperative Auditor

*Completion of Service

ROSTER OF TRAINEES
MINISTRY OF EDUCATION

<u>N A M E</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>TENTATIVE ASSIGNMENT</u>
1. Anderson, Barbara	669-81-01		1/81 1/83	Gbarnga, Bong County	Reading Specialist
2. Banner, Linda	669-81-01		1/81 1/83	Gbarnga Bong County	Vocational Agriculture Teacher
3. Bonacci, Bonnie	669-81-01		1/81 1/83	Gorblee Grand Bassa County	Science Teacher
4. Cohen, Lynn	669-81-01		1/81 1/83	KNTTI, Kakata Gibi Territory	Pre-Service Teacher Trainer
5. Deardoff, Andrea	669-81-01		1/81 1/83	Gorblee Grand Bassa County	Voc. Ag. Teacher
6. Ervin, Keith	669-81-01		1/81 1/83	Sasstown Sasstown Territory	Math Teacher
7. Harris, Yvonne	669-81-01		1/81 1/83	Gbarnga Bong County	Community Schools Supervisor Lofa, Nimba and Bong Counties
8. Hoffman, Sara	669-81-01		1/81 1/83	Zwedru Grand Gedeh County	Chemistry Teacher
9. Kay, Thomas	669-81-01		1/81 1/83	ZRTTI Lofa County	Pre-Service Teacher Trainer
10. Kinkle, Brian	669-81-01		1/81 1/83	Ziah Town	Voc. Ag. Teacher
11. Lewis, Scott	669-81-01		1/81 1/83	Ganta, Nimba County	Science Teacher
12. Lyon, Peter	669-81-01		1/81 1/83	B.W.I., Kakata Gibi Territory	Drafting-Industrial Arts
13. Martin, Anna	669-81-01		1/81 1/83		Counselling and Guidance
14. Martin, Richard	669-81-01		1/81 1/83		Auto Mechanics Instructor
15. Phillip, Angelica	669-81-01		1/81 1/83	Fissebu	Voc. Ag. Teacher
16. Phillip, Randolph	669-81-01		1/81 1/83	Fissebu	Math Teacher

*Completion of Service

- 15 -
 MINISTRY OF EDUCATION
 Ministry of Education

<u>N A M E</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COG DATE*</u>	<u>LOCATION</u>	<u>TENTATIVE ASSIGNMENT</u>
17. Reed, Mabel	669-81-01		1/81 1/83	Harper	In-Service Teacher Trainer
18. Robinson, William	669-81-01		1/81 1/83	B.W.I., Kakata Gibi Territory	Building Trades
19. Sizemore, Freda	669-81-01		1/81 1/83	Robertsport	In-Service Teacher Trainer
20. Stauistreet, Patrick	669-81-01		1/81 1/83	Zwedru Grand Gedeh County	Math Teacher
21. Trucker, Frank	669-81-01		1/81 1/83	Zwedru Grand Gedeh County	Counselling and Guidance
22. Weldyk, Ronald	669-81-01		1/81 1/83	Palala	Voc. Ag. Teacher
23. Whitman, Martha	669-81-01		1/81 1/83	Grand Cess	Science Teacher
24. Borchardt, Ingrid	669-81-01		1/81 1/83	Kolahun	Voc. Ag. Teacher

*Completion of Service

ROSTER OF TRAINEES
MINISTRY OF HEALTH

<u>N A M E</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>TENTATIVE ASSJGNMENT</u>
1. Wright, Doris Ann			12/80 12/82	Compound No.38 Bar-See Giah Town Grand Bassa County	Health Education Nutrition Worker
2. Thompson, Betsy Olor			12/80 12/82	Fish Town Clinic Maryland County	Health Education Nutrition Worker
3. Gardner, Cherissa E			12/80 12/82	Kakata, Gibi Kakata, Gibi Territory	Health Education Nutrition Worker
4. Manoz, David Thoma			12/80 12/82	Toe Town Clinic Grand Gedeh County	Health Education Nutrition Worker
5. Carlin, Bill T.			12/80 12/82	Kabadah Clinic Sinoe County	Health Education Nutrition Worker
6. Devenport, Helen F			12/80 12/82	Compound No.2 Clinic Grand Bassa County	Health Education Nutrition Worker
7. Klein, Catherine			12/80 12/82	Karnweaken Clinic Grand Gedeh County	Health Education Nutrition Worker
8. Payton, Venessa			12/80 12/82	Juarzon Clinic Sinoe County	Health Education Nutrition Worker
9. Scott, Delphine			12/80 12/82	Cavalla Clinic Maryland County	Health Education Nutrition Worker
10. Gray, Pamela V.			12/80 12/82	River Cess Clinic River Cess Territory	Clinic Nurse
11. Nicholson, Sadie N.			12/80 12/82	J.J.Dozen Hospital Harper City, Maryland Co. County	In-Service Training Coordinator
12. Myers, Debra			12/80 12/82	Zwedru (Ministry of Health Clinic) Grand Geden County	In-Service Training Coordinator
13. Philbin, Susan M.			12/80 12/82	F.J. Grante Hospital Sinoe County	In-Service Training Coordinator
14. Resoi, Edna			12/80 12/82	Ganta Community Clinic Nimba County	In-Service Training Coordinator

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ROSTER OF TRAINEES
MINISTRY OF HEALTH

<u>N A M E</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>TENTATIVE ASSIGNMENT</u>
15. Hall, Jack			12/90 12/62	Phebe Hospital Suakoko, Bong County	Pharmacist

ROSTER OF TRAINEES
MINISTRY OF ACTION, DEVELOPMENT & PROGRESS

<u>N A M E</u>	<u>PROJECT NUMBER</u>	<u>RECORD NUMBER</u>	<u>ARRIVAL/COS DATE*</u>	<u>LOCATION</u>	<u>TENTATIVE ASSIGNMENT</u>
1. Waterhouse, Rhonda	669-81-04		1/81 1/83	Monrovia Montserrado County	Action, Development & Progress Water Program - Garage
2. McCade, Walter	669-81-04		1/81 1/83	Monrovia Montserrado County	Action, Development & Progress Water Program - Garage
3. Orrick, Jucson	669-81-04		1/81 1/83	Monrovia Montserrado County	Action, Development & Progress Water Program - Garage

*Completion of Service

DISTRIBUTION OF PEACE CORPS VOLUNTEERS

	MINISTRIES	FEMALE	MALE	TOTAL
Monrovia	Action, Development and Progress	0	2	2
Based	Agriculture	4	2	6
	Education	2	0	2
Volunteers	Health	3	3	6
	Local Government	0	1	1
	National Housing Authority	0	1	1
	Other	0	0	0
	Total	9	9	18

	MINISTRIES	FEMALE	MALE	TOTAL
Up	Action, Development and Progress	1	5	6
Country	Agriculture	10	15	25
	Education	14	13	27
Based	Health	21	8	29
	Local Government	1	9	10
Volunteers	National Housing Authority	0	0	0
	Other	0	0	0
	Total	47	50	97

Action, Development and Progress PCVs	8
Agriculture Peace Corps Volunteers	31
Education Peace Corps Volunteers	29
Health Peace Corps Volunteers	35
Local Government Peace Corps Volunteers	11
National Housing Authority PCV	1

GRAND TOTAL: 115

MANO RIVER UNION

UNION FORESTRY TRAINING INSTITUTE

PROGRAMME DOCUMENT

OF THE

FOREST INDUSTRIES VOCATIONAL
TRAINING COURSES

CERTIFICATE PROGRAMME OF FOREST INDUSTRIES

VOCATIONAL TRAINING

1. LEVEL AND TITLE OF AWARD

This Programme leads to the award of a certificate of proficiency after the successful completion of any of the courses for Forest Industries Workers, listed in this document.

2. RELATIONSHIP WITH OTHER PROGRAMMES

This Programme contains a number of training units in common with the Forest Ranger Training Programme and other technical Institutions in the areas of surveying, enumeration, scaling, basic engineering technology and practice.

3. GENERAL AIMS

The Programme has been designed for new entrants who are to be trained as forest workers and also for the improvement in the efficiency of performance of workers already in employment. This is hoped to be achieved through the development of their knowledge and skills in the various operations associated with timber harvesting, transportation, sawmilling, marketing and also the effective maintenance of the appropriate tools and machinery used in these operations.

4. JOB DESCRIPTIONS

The job descriptions, stating mainly the duties of the various categories of workers for whom the training is intended, are as follows:-

4.1 Chain saw operator

Duties

- a. Fell large and sound tropical hard wood trees of identified species and sizes with a minimum of wastage;
- b. Cross cut the felled trees for maximum log production in volume and quality;
- c. Carry out preventive maintenance of the chain saw and ancillary tools;
- d. Perform every duty in strict observance of safety practices to benefit himself and other workers in the vicinity.

4.2 Chain saw mechanic

Duties

- a. Carry out preventive maintenance of the chain saw and ancillary tools;

- b. Diagnose faults as they arise and rectify them;
- c. Dismantle, repair, replace, install any component part of the chain saw;
- d. Determine the re-usability of parts;
- e. Maintain a record of servicing;
- f. Estimate the requirement of identified spare parts to minimise break down;
- g. Perform every duty safely.

4.3. Forest Surveyor/Enumeration

To meet the special needs of the companies, this standard job has been divided into smaller units which so far include forest surveyor, chainman, tree spotter and enumerator. The duties of a surveyor/enumerator team leader can be stated as:-

- a. Demarcate and survey periodic blocks, compartment and other forest boundaries as directed;
- b. Perform any of the following types of survey as directed:-
 - boundary survey
 - line survey
 - topographic survey
 - enumeration
 - stock survey
- c. Measure correctly the girth or diameter of identified tree species and locate their positions in the particular block or compartment by offset distances;
- d. Prepare maps from survey data showing area, physical features, stock location, extraction routes or any other details as directed;
- e. Align and cut road traces;
- f. Apply safety practice in all jobs undertaken.

4.4 Scaler

Duties

- a. Identify the obligatory timber species in log form;
- b. Determine the type and extent of log defects;
- c. Measure and calculate the net volume of logs and sawn timber;

- d. Classify or grade logs and sawn timber according to their stated end uses and given specifications, or grading rules in force;
- e. Record details of log or sawn timber volume, species dimensions and any other information required;

4.5 Tractor Mechanics

Duties

- a. Carry out preventive maintenance on the different makes of heavy logging equipment in the tractor group i.e. crawler and wheeled tractors, loaders, graders and timber jacks, in common use in the concessions;
- b. Diagnose and rectify faults as they arise;
- c. Carry out curative maintenance;
- d. Determine re-usability of parts;
- e. Suggest to management the requirement of spare parts to minimize breakdowns;
- f. Maintain service records;
- g. First Aid and Safety Practices.

4.5.1 Logging Truck Mechanic

Duties

- a. Carry out preventive maintenance on the component parts of the different makes of logging trucks in use at the concession areas;
- b. Diagnose and rectify faults as they arise;
- c. Carry out curative maintenance;
- d. Determine the re-usability of parts;
- e. Suggest to management the requirement of spare parts to minimize breakdowns;
- f. Maintain service records;
- g. First Aid and Safety Practice.

4.5.2 Light Vehicle Mechanic

Duties

- a. Carry out preventive maintenance on the component parts of the different makes of light vehicles as are in use in the concession areas;

- b. Diagnose and rectify faults as they arise;
- c. Carry out curative maintenance;
- d. Determine re-usability of parts;
- e. Suggest to management the requirement of spare parts for minimizing breakdown;
- f. Maintain service records;
- g. First Aid and Safety Practice;

4.6 Band Saw Maintenance

Duties

- a. Using machines and hand tools to carry out preventive maintenance of all types of band saws;
- b. Diagnose and rectify faults as they arise;
- c. Carry out curative maintenance;
- d. Determine when a band saw needs replacement;
- e. First Aid and Safety Practice.

4.6.1 Circular Saw Maintenance

Duties

- a. Using machines and hand tools to carry out preventive maintenance of all types of circular saws in use at the concessions;
- b. Diagnose and rectify faults as they arise;
- c. Carry out curative maintenance;
- d. Determine when a circular saw needs replacement;
- e. First Aid and Safety Practice.

4.6.2 Hand Saw and Cutting Tools Sharpener

Duties

- a. Sharpen any hand saw (cross cut or ripping)
- b. Straighten any hand saw;
- c. Sharpen cutting tools including axes, cutlasses and other nursery and plantation tools;
- d. Repair hand tools;
- e. First Aid and Safety Practice.

5. ENTRY REQUIREMENT (STUDENT PROFILE)

The basic entry requirements of trainees into this programme are:-

5.1 Educational Standard

Generally for new entrants the minimum is High School or its equivalent with English and Mathematics studied up to this level. In addition, students for training as mechanics must have covered basic engineering technology preferably at a technical Institution, plus at least one year experience in motor engineering practice. Special requirements for individual courses are contained in the relevant course files.

Servicing forest workers in the concessions will be accepted on the merit of their experience and recommendation of their employers.

5.2 Physical fitness

Must have the capacity for hard physical work under all weather conditions in remote forest areas with limited facilities.

5.3. Attitude

Must have sympathy for rural life.

5.4. Aptitude

Must have the natural ability for skills training and development.

5.5. Age

Young adult between 18-25 years for new entrants. Serving workers as recommended.

6. GENERAL PROGRAMME AND COURSE OBJECTIVES

Basically the objectives of this programme can be stated thus:-

6.1 To provide new entrants as well as existing Forest Workers with the knowledge and skills identified in the individual courses of this Programme, as necessary for the efficient performance of their task assignments to achieve maximum production of timber or other forest produce.

6.2 To work effectively and safely with others.

6.3 To stimulate the personal development of the worker and stress his contribution to society or the nation.

6.4 Course Objectives

The course objectives are basically the knowledge and skills necessary for the performance of the tasks listed under

each job, full details of which are contained in the course files. In summary, these learning objectives could be stated as, that at the end of the training, members will be able to:-

6.4.1 Chain Saw Operators Course

- a. Recognise the general symptoms of unsoundness which make a tree uneconomic to fell; test trees for heart rot or other stem defects;
- b. Using a chain saw, apply the correct techniques to fell any given tree and cross cut it for maximum log production;
- c. Maintain preventively the chain saw and ancillary tools, including the detection of faults as they arise and rectifying them;
- d. Employ a high standard of safety practice including First Aid.

6.4.2 Chain Saw Mechanics Course

- a. Carry out preventive maintenance of the chain saw;
- b. Identify and rectify faults as they arise and so minimize the frequency of breakdowns;
- c. Carry out curative maintenance of the component parts of a chain saw, determine the re-usability of parts and suggest to management the replacement parts needed in order to minimize breakdowns;
- d. Maintain records of major servicing of chain saws;
- e. Apply safety practice including first aid.

6.4.3 Survey/Enumeration Course

- a. State the need for surveying in forest practice;
- b. Use both the metric and imperial units of linear measurement in surveying;
- c. Apply any of the following methods of surveying as desired:-
 - i. chain and compass
 - ii. plane table
 - iii. rectangulation
 - iv. triangulation
 - v. topographic
- d. Plot survey data and prepare any of the following maps viz. stock, enumeration, topographic, and plane survey details;
- e. Align and cut road traces in the forest;

- f. Measure and enumerate the obligatory tree species and locate their cardinal position by off-sets within any block or compartment;
- g. Collect botanical samples of doubtful or unknown species for identification purpose;
- h. Apply safety practice including first aid.

6.4.4 Scaling Course

- a. Identify timber species in the form of log or sawn timber;
- b. Determine the type and extent of defect in logs and sawn timber;
- c. Calculate the gross and net volumes of logs and sawn timber by formula and tables;
- d. Grade logs or sawn timber according to existing rules or given specifications or end uses;
- e. Tally and record logs and sawn timber.

6.4.5 Logging and Transport Equipment Maintenance Course

This course comprises three main UNITS, viz. (a) tractors, (b) logging trucks and (c) light vehicles, the detailed objectives of which are contained in their separate course files. Common to all of them are the following basic objectives:-

- a. Identify the different types of equipment and vehicles in use at the concessions;
- b. Carry out preventive maintenance of these equipment and vehicles;
- c. Diagnose and rectify faults as they arise;
- d. Carry out curative maintenance and determine the re-usability of parts;
- e. Suggest to management the necessary stock of spares to minimize breakdown;
- f. Maintain service records;
- g. Employ a high standard of safety practice including First aid.

6.4.6 Saw Maintenance Course(Saw Doctoring)

This course is basically practical and is in three UNITS, all of which follow an induction course in materials, dullness of tools, principles of wood cutting and welding.

The course objectives of these Units are:-

Band saw maintenance

- (a) maintain sharpness
- (b) maintain correct tension;
- (c) maintain back edge conformity and correct levelling;
- (d) setting saw kerf - spring and swage set;
- (e) welding of cracks with electric arc and oxy acetylene apparatus
- (f) butt welding;
- (g) Brazing joints after cutting;
- (h) Lapping and grinding;
- (i) punching;
- (j) retooling.

Circular Saw Maintenance

- (a) identify type of saw and tooth shape
- (b) maintain sharpness with hand tools and with machine
- (c) Tensioning correctly
- (d) checking and correct levelling
- (e) checking and setting of teeth - spring and swage set
- (f) welding of cracks
- (g) punching to stop cracks
- (h) re-toothing

Hand Saw and Tools

- (a) sharpening saw with file or grinding machine
- (b) sharpening hand tools at correct angles of cutting edge
- (c) repairing hand tools
- (d) care and storage of hand tools

7. CREDITS AND EXEMPTIONS

- 7.1 In general, candidates who show evidence of previous training and experience in any course or course unit in this Programme, will be exempted from the relevant sections of such courses.
- 7.2 New candidates who already possess the basic qualification and some experience in motor engineering technology and practice will be exempted from the preliminary sections of

the course for mechanics. Workers with at least two years working experience with a timber company will also be exempted from certain sections of the basic course for mechanics as indicated by performance level tests.

7.3 Candidates with training and experience in surveying will be exempted from certain sections of the survey course as indicated by performance level tests.

8. COURSE STRUCTURE

The relevant learning objectives of the courses under this programme are derived from the task analysis of the various jobs for which the training is intended. There are so far 8 identified standard basic courses with provision for division into course units to meet the variety of needs of the different timber companies. Each course or course unit is preceeded by an induction course during which instructions are given in the subjects or skills considered as necessary preliminaries (or revision) to the particular course or course unit. The courses identified are listed below:

<u>Course and Description</u>	<u>Duration</u>	
	<u>Time</u>	<u>Sessions of 50</u>
	<u>Minutes x 5 days</u>	<u>week</u>
1. Chain saw operator	360 sessions	(12 weeks)
2. Chain saw mechanic	150 sessions	(5 weeks)
3. Forest Survey/Enumeration		
Unit (1) Forest Surveyor	360 sessions	(12 weeks)
Unit (2) Compass man	120 sessions	(4 weeks)
Unit (3) Chainman	90 sessions	(3 weeks)
Unit (4) Enumerator	90 sessions	(3 weeks)
Unit (5) Tree Finder	90 sessions	(3 weeks)
4. Scaler	180 sessions	(6 weeks)
5. Tractor Mechanic	600 sessions	(20 weeks)
6. Trucks Mechanics	368 sessions	(12 weeks)
7. Light Vehicle Mechanic	300 sessions	(10 weeks)
8. Saw Doctoring (Practicals)		
Unit (1) band saw maintenance	420 sessions	(14 weeks)
Unit (2) circular saw maintenance	210 sessions	(7 weeks)
Unit (3) hand saw/cutting tools sharpener	90 sessions	(3 weeks)

The duration of each course is the estimated minimum for confirming that the skills can be performed by an average student. Practising time for proficiency development is extra and variable according to the observed needs of the candidates.

Separate training documents have been developed for each standard course with its component units.

9. PROGRAMME AND COURSE TIME TABLES

For as long as the present lack of heavy training equipment at this Institute exists, This programme will make use of the facilities in the concession areas.

In the past, the Timber Companies which own the logging and transport equipment were sometimes forced to scale down production because of the poor road conditions during the rainy season. With the improvement in operational techniques, road maintenance and the availability of new designs of machinery, it is now possible for them to operate throughout the year some that maintenance work on these items of equipment is, as one would expect, heavier in the rainy season than in the dries.

On the basis of the reasons stated, the following programme time table is produced, subject to modification with change of facilities or situation:-

<u>Course</u>	<u>Months of the Year</u>
Chain saw operator	All year round
Chain saw Mechanic	All year round
Survey/enumerator	January-June; Oct-Dec.
Tree Finder	January-June; Oct-Dec.
Scaler	January-June; Oct-Dec.
Tractor mechanic	January-June; Oct-Dec.
Truck Mechanic	January-June; Oct-Dec.
Light Vehicle	January-December
Band Saw Maintenance	January-December
Circular Saw Mechanic	January-December
Hand Saw Sharpening	January-December

Individual course time tables are based on the number of serials or topics and the sessions required for instruction, and students practice. These are below:-

DAYS OF THE WEEK	LESSON SESSIONS					
	8:30	9:30	10:30	11:30	12:30	1:30
Monday	Surveying Methods etc.	Survey Distance etc.	Tree Felling	etc.		
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						

Instructors: Surveying - Mr. X
Tree Felling - Mr. X

10. ASSESSMENT PROCEDURE AND TIME TABLE

The nature of the courses in this programme being skills based, the form of assessment will largely be performance testing at definite progressive stages or phases of training. In addition objective cognitive testing will be conducted to prove the students' achievement in theory and practice as well as to provide a feed back to the Instructor or course designer. All tests will be measuring the identified learning objectives of each course.

Because of the wide variation of the duration of the different course units, it will be extremely difficult to formulate a standardised time table for the whole programme. As a general principle therefore, tests shall be given:-

- (i) at the start of the course to assess the initial knowledge/skills level of the student;
- (ii) intermittently at the end of each progressive phase of the course as selected by the instructional design;
- (iii) final skills test at the completion of the course to confirm performance at the required standard.

On the passing of the final skills tests, certificates of proficiency for the particular course will be issued to the candidates.

For further details please communicate with the Union Forestry Training Institute, Tubmanburg or through Post Office Box 9050, Monrovia, Liberia.

MANO RIVER UNION
UNION FORESTRY TRAINING INSTITUTE

PROGRAMME DOCUMENT
OF THE
FOREST RANGER TRAINING COURSES

GENERAL AIMS OF THE PROGRAMME

The Forest Ranger Training Programme aims at:-

- a) Training young men as Forest Rangers for carrying out all technical forestry jobs in the Forest Services of the Member States.
- b) Offering short training courses to workers to enable them carry out specialized Forest Management duties.
- c) Ensuring that all students trained under the programme cultivate the right attitude and disposition towards the forestry profession and their duties.
- d) Ensure the closest possible involvement and co-operation of the staff of the Forest Services of the Member States in the planning and implementation of the curriculum.
- e) Initiating and developing the right atmosphere for mutual confidence, co-operation and team work among both the programme staff and all other staff of the Institute in the day-to-day running of the programme.

JOB DESCRIPTION FOR THE FOREST RANGER

The main duties which the Forest Ranger may assume within the Forest Service are as follows:-

1. Supervision of all Forestry work in his area including:-
 - a) Forest Nursery Work
 - b) Establishment of new plantation
 - c) Tending of tree crops
2. Forest Management and utilisation duties:-

- a) Forest Surveying and Inventory
 - b) Measurement of forest produce
 - c) Protection of the forest resources
 - d) Construction or maintenance of roads culverts or buildings.
3. Forest Research duties:-

establishment)
measurement } of Research Plots.
protection }

STUDENT PROFILE

1. Educational Standard: Candidates must
 - (i) have completed high/secondary school;
 - (ii) have read English, Mathematics and Biology up to that standard;
 - (iii) pass the Institute's Entrance Examinations.
2. Physical Fitness:
be physically strong, healthy and capable of walking long distances and doing hard physical work in rough weather.
3. Attitude:
have sympathy for rural life.
4. Age/Sex:
be a male between the ages of 18-25 years.
5. Management Potential:
be courageous, with good moral, firm character; good communication ability.
6. Job Experience: (Pre-selection field experience)

have worked with the forestry authority of the Member States for a period not less than 6 months.

TRAINING OBJECTIVES

At the end of the course the Forest Ranger who graduates from U.F.T.I. should be able to:-

1. supervise workers engaged in forest nursery work, establishment of new plantations and tending of tree crop;
2. carry out simple chain and compass surveying and preparation of area maps;
3. carry out topographic surveying and preparation of contour maps;
4. carry out stock survey and preparation of stock maps;
5. scale logs, assess revenue and check way bills;
6. carry out duties designed to ensure the compliance of concessionaires to concession agreements;
7. care for and maintain simple tools and materials under his charge;
8. protect the forest estate under his charge;
9. construct and/or maintain forest roads, buildings simple bridges (culverts)
10. establish, measure and maintain Forest Research Plots.

OVERVIEW OF TRAINING PLAN

For the student to be able to carry out the duties outlined in the training objectives he must successfully com-

plete the following courses during his training:-

1. Introductory Course
 - a) Background to Forestry and meteorology
 - b) Forest Biology
 - c) Mathematics
 - d) English
2. Forest Nursery Techniques
3. Forest Plantation Techniques
4. Forest Engineering
5. Forest Management and Utilization
6. Logging Supervision
7. Supervision and Work Relations
8. Forest Protection, Law & Administration
9. Soil Science

The time when these courses are offered depend on both the season of the year and the time the operation is undertaken in the field by the Forest Services. On this score the schedule of courses below has been drawing to ensure harmony in implementing the programme. Basically the two-year period is divided into six terms of four months each with specific training objectives.

FIRST TERM:
JANUARY-APRIL

This is an introductory course whose objectives are:

- (a) to even out differences in the trainees' general education. Mathematics, English and Biology are taught;
- (b) give trainee an over view of the forestry profession. Forest Ecology, benefits derived from forests, Forestry and Forest Industries are taught leading to an understanding of the basis for Forest Policy. Visits are made to various forestry establishments and operations in the two states at the end of the period;
- (c) start the part of the course normally done in the dry season. e.g. Forest Survey and Nursery Work.

SECOND TERM:
MAY-AUGUST

The objective of the term basically are:-

- (a) to teach the trainee the techniques of establishing and tending trees as a crop; Tree Planting and Tree Identification are taught;
- (b) to undertake duties which can be done in the raining season e.g. mapping and map reading, tools and machines and Forest Protection are taught.

THIRD TERM:
SEPTEMBER-DECEMBER

The objective of the term is to give students more practice, under field conditions, in the areas of Forestry covered in the previous terms. Thus students are attached to various Re-

gional Forest Officers for four months practical training.

**FOURTH TERM:
JANUARY-APRIL**

The objective of the term is the teaching of the techniques and field operations involved in timber harvesting. Log Scaling and assessment of revenue for the tree crop. Subjects include:- Topographic Survey and Mapping, Stock Survey, Logging Supervision, Log Scaling, Construction of forest Roads, Bridges, Buildings.

**FIFTH TERM:
MAY-AUGUST**

Objective is to consolidate the Forest Management techniques and all exercises undertaking in the previous terms. Trainees go to various forest regions for four months practical training.

**SIXTH TERM:
SEPTEMBER-
DECEMBER**

The objective of the term is to review the whole course as a unit and show the Forest Ranger his true role and position in the Forestry organisation. Forest Management, Supervision of Work, Forest Administration and Forest Law are taught.

TABULAR SUMMARY OF COURSE STRUCTURE: UNITS BY TERMS

<u>TERM</u>	<u>PERIOD</u>	<u>COURSE DETAILS</u>
FIRST TERM:	JANUARY-APRIL	<ol style="list-style-type: none">1. English2. Mathematics3. Background to Forestry4. Forest Biology5. Surveying6. Forest Nursery Work7. Forest Protection
SECOND TERM:	MAY-AUGUST	<ol style="list-style-type: none">1. Tree Identification2. Plantation Technology3. Mapping and Map Reading4. Tools and machines5. Protection
THIRD TERM:	SEPTEMBER-DECEMBER	<ol style="list-style-type: none">1. Field Attachment
FOURTH TERM:	JANUARY-APRIL	<ol style="list-style-type: none">1. Timber Stock Survey2. Log Scalling3. Forest Roads, Bridges and Building4. Logging Supervision
FIFTH TERM:	MAY-AUGUST	<ol style="list-style-type: none">1. Field Attachment
SIXTH TERM:	SEPTEMBER-DECEMBER	<ol style="list-style-type: none">1. Forest Law & Admin.2. Forest Management3. Supervision

ASSESSMENT PLAN AND AWARD

ASSESSMENT

Forest Ranger training at the Institute is largely practical. But some theory is necessary to give the students an understanding of basic forestry principles. Broadly speaking therefore, course assessment includes practical as well as written examinations. Further more, the students attitude to work forms an important training objective. This too is assessed.

The assessment of trainees attitude is done continuously throughout the course. The students behaviour in the classroom, at work or in the dormitories are important criteria for successful completion of the course. On the technical training side, whether a written or a practical examination is to be given, depends on the unit of the course being offered at the particular time. Therefore, the type of assessment and the way it should be administered are discussed separately under each course unit. In general the the following types of assessment are made for entrance to and successful completion of the course.

Type of Test	Frequency
1. Students basic education	Once, pre-entry
2. Tests at end of each lesson/ exercise	Throughout course
3. Orderly duties	Two weeks for each student
4. Monthly tests (written or practical)	Throughout course
5. Practical exercises on field attachment	Every month, eight months
6. Terminal examinations	Six times in the course
7. Final examinations	Once, at end of course

B. Attitude

Throughout the course

AWARDS

The pass mark for all written examinations is 50% but the practical exercises are graded on a pass/fail bases. All students who make scores of 50% and above or make passes in practical examinations respectively in all subjects are awarded a Diploma at the end of the course.

The Diploma is awarded at two levels - a pass level and distinction level. To earn a distinction Diploma a student has to score a minimum of 60% in every subject and 75% average all subjects. Finally, special prizes are given to the best behaved student and the student with the best academic record throughout the course. Students who fail Terminal examinations are required to resit reference papers during the month following that examination. But all students who fail to pass reference examinations will loose their places at the Institute.