PROJ. # 669-143

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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

CAPITAL ASSISTANCE PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

LIBERIA - ROAD MAINTENANCE EQUIPMENT

AID-DLC/P-2107

UNCLASSIFIED

PROJECT PAPER

Liberia: Road Maintenance Equipment Loan

Part I. Summary and Recommendation

1. Project Development Team

   H. Guiot, REDSO/L/ENG
   G. Nelson, REDSO/WA
   A. Patrick, REDSO/L
   G. Thompson, AFR/DS

2. Borrower: The Government of Liberia (GOL) will be the Borrower. The Ministry of Public Works (MPW) is responsible for execution of the GOL's Five Year Road Maintenance and Development Program (FYRMAD) of which the AID loan proposed herein is an essential element.

3. Total Cost of FYRMAD Maintenance Program (1973-77):

		$ thousands
A.I.D.		
Loan 669-H-020		$ 4,400
Proposed Loan		4,000
IBRD		
1973 Credit		1,685
Germany (FRG)		4,400
UNDP		190
GOL (Capital Support)*		1,395
	TOTAL	$16,070

4. AID's Proposed Loan

   Amount: $4 million

   Terms:

   Interest: 2% per annum during the grace period; 3% per annum thereafter.

* The GOL will contribute a minimum of $9.5 million to cover the recurrent costs of the maintenance portion of the (1973-77) FYRMAD program.

Maturity: 40 years including a 10 year grace period.

Currency of Repayment: Principal and interest to be paid in U.S. dollars.

5. Purpose: To finance the AID Geographic Code 941 procurement costs of road maintenance equipment, vehicles, spare parts and procurement related services needed to support the expanded objectives of Liberia's Five-Year Highway Maintenance and Development Program (FYRMAD).

6. Project Background and Description: See Part II, pages 3 through 10.

7. Views of Country Team: The Country Team strongly endorses the project.

8. Export-Import Bank Clearance: Received June 12, 1975.

9. Issues: None

10. Recommendation: Authorization of a loan of $4.0 million to the Government of Liberia.

II. PROJECT BACKGROUND AND PROJECT DESCRIPTION

1. Background

Liberia's economy has grown rapidly in recent years, but that growth has had little development impact on the rural population. Centered in the mining sector, this growth directly effects only the few Liberians employed by the concessions and an elite class in Monrovia. The Government's present policy is to shift the economic base towards agriculture. Since roads are the predominate mode of transportation and since the network is far from adequate, part of the new policy's strategy is placing considerable emphasis on the improvement and proper maintenance of the road network.

Except for some enclave type railroads, Liberia is almost wholly dependent upon road transport for the economical movement of goods. Geographical constraints in the country's coastal areas have encouraged small boat transport but this mode is slow, costly, geographically limited and not always reliable. Likewise the lack of roads in the interior areas of the country has meant that most commerce and communications are limited to head-loads and foot traffic. This mode is obviously self limiting and costly. The GOL has made special efforts to expand and modernize its road transport system to provide the relatively inexpensive and reliable transport needed to assist balanced development.

Liberia's present road network totals approximately 4,567 miles and includes approximately 3,317 miles of public roads, and 1,250 miles of privately-owned roads (open to the public although constructed by various mining, timber and rubber concessions). Over 3,000 miles of the roads are in the rural areas. The public roads include 1,145 miles of all weather primary roads (only 208 miles of which are asphaltic), 706 miles of all weather, laterite secondary roads and 1,466 miles of dry weather laterite rural roads. Over 90% of the total system was constructed after 1950.

The GOL constructed these public roads primarily using its own force account, with the help (mainly between 1953 and 1962) of technical experts from the U.S. Bureau of Public Roads.* The construction was financed in large part through foreign loans and grants. From 1951 through 1963, it received loans of $16.2 million from the Export-Import Bank. In 1962, the GPL obtained a U.S. suppliers credit of $23 million, and in 1964, it received a $4.25 million loan from the IBRD. By 1962 about 1,750 miles of roads existed.

Although roads are Liberia's predominate and most economical means of transportation of goods and people, it's ironic that the major constraint to Liberia's overall development historically and presently is an extremely limited and poorly maintained road system. This

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*See Annex F for AID's involvement in GOL's road programs.

constraining effect is even more limiting when it is realized that the new AID and GOL development emphasis is towards improving the quality of life for rural poor people and their agriculture, which directly depends upon improving their access to better markets, income, education and health services.

The entire thrust of the multi-million dollar, multi-donor's FYRMAD, as well as the thrust of AID's rural roads projects and road maintenance equipment projects has all been towards rapidly and effectively reducing the constraint that inadequate road accesses has on economic, social and agricultural development.

One indication of the need for and the importance of this AID loan and other GOL and IBRD road development efforts is the fact that other major sectoral developments all have a roads component as a vital requisite for the success of the respective projects, e.g., the Upper Lofa County Integrated Rural Development. Ironically the important Lofa County area, presently has but one, all-weather (partially laterite) road stretching 150 miles along the upper northern half of the country, then south to the capital and port city of Monrovia.

Another indication of both the lack of an adequate Liberian road system for minimal economic development as well as the IBRD's recognition of the importance roads play in Liberia's development is the IBRD's proposed Third Highway Project, presently involving final favorable negotiations for an estimated $27.2 million. This is in addition to its previous 2 highway project loans totalling almost $10 million over the past decade.

Road maintenance efforts have failed to keep pace with the expansion of the road network. At the GOL's request the IBRD financed, in 1970 a detailed road maintenance study aimed at pointing up physical and organizational needs and problems of the MPW, primarily those needs related to road maintenance.

The results of this study undertaken by Sauti, an Italian firm, and completed in mid-1972, formed the primary basis for the FYRMAD. The IBRD assisted the GOL in preparing the FYRMAD and its recommendations were presented by the GOL at a late 1972 conference in Monrovia to ten countries and/or international financing agencies interested in Liberia's development. The FYRMAD is now estimated to cost $61.35 million of which the maintenance portion is $16 million. (See Annex B).

One of the first actions under the FYRMAD was the assignment of various types of road maintenance experts to assist the MPW in the road maintenance upgrading undertaking. This was financed by the IBRD

and the experts were supplied by Sauti. Their April, 1974 inception report has provided a continuing forum of understanding regarding the needs, problems and objectives of the FYRMAD.

USAID/Liberia, assisted by REDSO/WA, has had close and continuing contact with the MPW, the Sauti people, IBRD representatives and, on occasion, with the FRG representatives. It has been able to assess the GOL's continued and now expanded need for road maintenance equipment and related items over and above those financed under AID Loan 669-H-020. It has determined that the GOL/MPW is now evidencing an ability to successfully absorb and use considerably more maintenance equipment than was to be purchased under loan 020.

The expanded program should enable the MPW to maintain in an effective manner 90% of its road network. Since almost all of Liberia's road network serves the rural agricultural areas, equitable distribution and use of the equipment on the road network will be of benefit to Liberia's rural development efforts. Nevertheless since the attribution of benefits from this project to Liberia's rural sector can only be made in an indirect manner it is reasonable to include this proposed loan in the special development project category.

The GOL formally requested this loan from AID for $4.0 million by letter dated 19 May 1975.

2. Project Description

AID's proposed loan fits into the Maintenance Program (MP) portion of the FYRMAD. The basic elements of the present FYRMAD are outlined in Annex B. The components of the MP portion of the FYRMAD are outlined below:

GOL/FYRMAD Maintenance Program

Project Component	Actual/(Expected) Financed Source
A. FYRMAD Coordinator	UNDP
B. Technical Assistance	IBRD
C. Equipment, Spare Parts and Procurement Services	AID
D. Paved Road Rehabilitation	(IBRD)
E. Maintenance Workshops	IBRD
F. Training Program	Germany
G. Budget Support	GOL

These are the same basic elements that were included in the MPW element of the financing package arrived at in 1973 as a result of the GOL/Donor Coordinating Meeting of October 1972 and subsequent agreements.

Each component of the Maintenance Program is described in the paragraphs below. The utilization of the equipment, spare parts and procurement services component, financed by the existing $4.4 million 669-H-020 AID loan and proposed $4.0 million AID loan and the GOL contributions covering both loans, are, of course, necessary to the program's overall success. The ending paragraphs of this section explain how the components mesh together.

A. The FYRMAD Coordinator

The FYRMAD is an extensive program involving construction and extensive rehabilitation of about 600 miles of primary roads, construction of some 300 miles of secondary roads, a reorganization of and technical assistance to the MPW to improve its operating and planning capacities; and workshop repair and construction, maintenance equipment supply and maintenance training to improve MPW's road maintenance activities.

Coordination of this program, both between and within the various components and within and between the GOL and the donors is the responsibility of the FYRMAD Coordinator. His salary is financed by the IPRD/UNDP and his responsibilities were agreed to by the GOL and the IBRD.

USAID works very closely with the coordinator since he provides a source independent of the MPW as to its needs, progress and abilities. He submits quarterly statements to the GOL and the donors on progress and problems of the FYRMAD.

He has worked very closely with USAID, FRG, IBRD, Sauti and the MPW on the revisions of the quantities, costs and types of equipment the MPW needs. Although AID began to recognize in early 1974, as did the MPW and IBRD, that the MPW's maintenance equipment needs were greater than had been originally suggested in the 1972 Sauti study, it was through his coordination that a new and more accurate list was developed and agreed to by all parties.

He also covers and coordinates the other components of the program which are not directly applicable to this proposed loan but which are necessary to achieve a balance in the GOL's transport development plans and tie them into its other efforts to achieve balanced economic growth and integration.

B. Technical Assistance

In 1973 the IBRD agreed to fund the technical assistance component of the Maintenance Program of the FYRMAD. On December 22, 1973 the GOL signed a contract with SAUTI-ICE Consultants to provide such assistance.

Sauti is:

a. improving and consolidating the organization of the MPW;

b. implementing standards and methods of improving road maintenance, in particular, preparing detailed annual and long range road maintenance programs;

c. improving the operational efficiency of the seven regional and district workshops and helping to establish three additional workshops in the interior counties of Liberia;

d. helping to improve the management and utilization of MPW's bureau of operations's mechanical equipment;

e. reviewing and improving MPW's budgetary procedures regarding highway maintenance including establishment of a cost accounting system;

f. assisting and improving MPW's budgetary procedures regarding highway maintenance including establishment of a cost accounting system;

g. improving overall highway planning on the basis of socio/economic criteria and traffic growth patterns.

The Sauti team began work in January 1974 and will be in the country until January 1978. The March 1975 Sauti quarterly progress report notes the nine Sauti experts are in the country and have five Liberian counterparts working closely with them.

The most important elements of Sauti's work, as related to AID's present and proposed equipment loans, are items b, c, d, and f and Sauti's general assistance in MPW's procurement and supply activities.

Work under item b, which relates to the ultimate use of AID's equipment, has progressed to the point where daily reports on specific road maintenance activities have been worked out and are being implemented on one major road maintenance effort now underway. The

reports measure operating efficiency and the per mile cost of maintenance. Analysis of these reports will be crucial in suggesting improvements in maintenance activities and the accumulated data will be fed into the annual and long range planning activities as well as be used to indicate to the MPW the recurrent and capital cost of planned maintenance programs.

Sauti is coordinating the procurement of materials and equipment needed under item c. Bids were opened on these items on March 4, 1975 and the items will start arriving in country in the fall.

Sauti is working closely with the training contractor, O. Bruchmann, running the FRG financed training program, and with AID and the MPW, and the FYRMAD coordinator to assure equipment needs and training needs go hand in hand. They are helping to assure that the types and levels of personnel trained are compatible with MPW's needs given its overall equipment pool and maintenance program.

C. Equipment, Spare Parts, and Procurement Services

This proposed loan is an important part of an integrated multi-donor road maintenance program for Liberia. This $4 million Loan plus GOL's capital contribution of $350,000 will be used to purchase the equipment, identified by Sauti and approved by GOL and AID, necessary to enable the MPW to effectively improve and expand its road maintenance capabilities and schedules proposed by MPW's two consultants. See Annex C for the itemized equipment list and estimated costs to be financed by this loan.

At this point, some $3,230,000 of the $4.4 million AID loan 669-H-020 is committed to procurement. Bid awards are expected shortly which will commit the remainder of the loan. The MPW will be in a position to absorb the new equipment when it is delivered in late summer 1975 when the first trained MPW foreman, mechanics and operators come out of the FRG training schools. The workshops will also be fully staffed and equipped within the 4-6 months following. In addition, organizational changes within the MPW are still being made, and MPW personnel are still being trained in cost accounting and others management techniques needed to assure more effective equipment utilization.

The loan funds under 669-H-020 were used to procure long-lead time equipment. Most of the equipment to be purchased under the proposed loan is short or medium lead time items. Of the equipment still needed, some 78 items costing about $1,700,000 including shipping, are new requirements of the MPW and are based on Sauti recommendations and the continued obselence of MPW's equipment since the 1972 Sauti report which AID has approved. The remaining $2,300,000 of the funds

under the proposed loan plus GOL's $350,000 contribution will be used to purchase equipment which was proposed under Loan 669-H-020 but could not be ordered since that loan's funds are being fully utilized for the long lead time heavy maintenance machinery and spare parts, the costs of which rose substantially in 1973 and 1974.

Procurement services for the AID financed equipment will be financed under the loan and will be provided by the African American Purchasing Center (AAPC) which provided these services under Loan 669-H-020.

As noted in the technical analysis section of this paper the quantity, type and unit costs of the items proposed for funding under the proposed loan have been checked by several experts including two AID specialists and have been found to be reasonable.

D. Paved Road Rehabilitation

The IBRD has proposed this as a separate item for its financing under the Maintenance Program of the FYRMAD but at this point it is not under serious consideration for funding, at least in 1975.

E. Maintenance Workshops

The foreign exchange costs of rehabilitation and reequiping of seven MPW maintenance workshops and the establishment of three new workshops is being funded by the IBRD/IDA under its joint $5.6 million FY 1973 credit. The GOL will provide the local costs of this program component. The estimated cost of this activity has increased from $300,000 to $1,000,000. Sauti and the FYRMAD coordinator found, on closer inspection last year, far greater needs than noted in 1972. In addition estimated costs of the commodities needed for the program have risen since 1973. These workshops will be physically ready for the AID financed equipment when it arrives.

F. Training Program

The Federal Republic of Germany (FPG) is grant financing the training program designed to train 267 foreman, shop personnel (mechanics, etc.) and equipment operators by June 1976. About 100 will be trained by the end of June 1975. The training program has been reviewed by the IBRD, Sauti and the FYRMAD coordinator. Sauti is now setting up a "Field Day" to introduce the type and standards of the training program to MPW senior staff to help assure better understanding of the value and need for such training. AID will also recommend to the FYRMAD coordinator that the MPW agree to pay adequate salaries to the trained personnel in order to avoid too many trained persons shifting to the private sector.

G. GOL Budget Support

The GOL has agreed with the several donors to provide budget support for the above activities and to provide sufficient budgetary resources for MPW's overall road maintenance efforts. One of the items Sauti is reviewing is the actual budgetary needs of the maintenance program. Both AID loans require and will require evidence of adequate GOL support of their components of the program and adequate funds to assure an effective and continuing maintenance program. According to Sauti's progress report number 3 of April 1975 budget shortfalls are occurring. However, the IBRD draft loan paper (for its proposed third highway project) indicates adequate funds may be available.

Revenues received by GOL from road user charges on fuel, import duties on vehicles and spare parts and vehicle licensing averaged $ 8 million per year for the period 1970-1973. Based upon actual receipts for 6 months in 1974, the annual revenues projected for that year were over $11 million and indicates a rising annual trend. Although these revenues go into the GOL general funds without allocations to specific ministries nor projects, it is evident that annual road user revenues make a major contribution to the annual GOL expenditures for its road maintenance program.

Maintenance Program Coordination

All the diverse components of the maintenance program have to mesh in timing and staffing, and cannot cause excessive drain on MPW's resources in order for the program to reach a high measure of success. The forthcoming delivery of equipment under 669-H-020 and under this proposed loan will fit well with the progress made by the GOL in training, and in establishing the workshops.

The coordinator plays a major role in assuring FYRMAD's effective implementation, and the IBRD staff also carries out periodic review missions of GOL progress.

A proposed second donor's conference will consider this project, the entire FYRMAD, the Wolegisi Iron Ore concession scheme, and the 1976-1979 Liberian four year development plan. We feel such a conference and the review of maintenance program progress during the planned AID evaluation will prove valuable in assuring a coordinated maintenance program effort.

3. Logical Framework[6/]

A. Program Goal

The major program goal toward which the GOL, AID and other donors to Liberia's FYRMAD are working is the integration, both economically and socially, of the rural areas with the rest of Liberia. The lack of suitable access to many rural areas for the smooth flow of goods and services is the limiting factor which this project seeks to address.

Project Goal

The project goal is to increase access to needed goods and services provided for rural populations. This can be measured by: the reduction in costs of goods and services in the rural areas due to the reduction in transport costs, increased utilization of government-provided services such as health clinics and consolidated schools and the number of miles of roads annually upgraded to all weather standards. The major assumption to link the project and program goal is that upgraded roads result in increased access and reduced transport costs.

B. Project Purpose

The project purpose is to build within MPW an institutional and physical capability to effectively maintain the present and expanded national road network, to acceptable standards by 1978. This capacity can be measured by: 1) the amount and timing of the road maintenance equipment being deployed to districts according to the SAUTI ICE plan by mid-1976; 2) whether 40% of trained personnel are upgraded in their technical skills and meeting scheduled road maintenance loads beginning 1976; 3) whether 90% of equipment is in operating condition at all times and 70% being used for road maintenance purposes beginning 1977; and 4) whether MPW is functioning effectively without consulting advisors by 1978. The critical assumptions linking the project purpose and goal are: 1) MPW staff will be adequately motivated to make the optimum use of their newly acquired capabilities; 2) AID, IBRD, AFDB and GOL road construction projects will be implemented as planned; 3) sufficient transport capacity will exist in the private sector to accommodate increased commerce; 4) development programs of the GOL and donors to provide services and economic opportunities for the rural populations will be implemented as planned; and 5) GOL will continue to give high priority to rural development in general and rural transport in particular.

6/ See Matrix in Annex D.

C. Project Outputs and the Inputs Required to Achieve Them

I. Of the 7 FYRMAD outputs, AID is providing one, which is the road maintenance equipment and spare parts necessary to meet road maintenance requirements. In order to achieve this output AID in Loan 669-H-020 provided 4.4 million dollars for the procurement of equipment and spares. The procurement list for this $4.0 million Loan as developed by MPW with their consultants, SAUTI ICE is attached as Annex C, AID's level of effort input will be $8.4 million.

II. The IBRD/IDA/UNDP are responsible for funding and achieving four of the 7 outputs: 1) the reorganization of MPW; 2) installing an effective management system; 3) equipping and staffing 10 workshops for equipment maintenance and 4) providing a public works expert to coordinate the FYRMAD program. Their input contributions of $1.875 million have provided for a) a contract with SAUTI ICE as management consultants (325 man-months) b) the procurement of prefab buildings and tools to equip the warehouse/ workshops and c) a personal services contract for the FYRMAD Program Coordinator.

III. The Federal Republic of Germany is providing the 6th output; training for MPW staff and is contributing 285 man-months of technical assistance to create and conduct the training courses and equipment. The major assumptions linking the project outputs and purposes are: 1) the GOL will provide adequate budgetary support to MPW to allow the road maintenance unit to function effectively; 2) MPW will continue the training program after completion of the FRG program; 3) MPW will be able to attract and retain a staff capable of utilizing the new management system.

IV. The GOL/MPW are to provide the staff selected to receive training, salaries and recurrent budget allocations and capital funds to support the FYRMAD.

III. PROJECT ANALYSIS

1. Technical Analysis

The Sauti consultant firm, MPW and the IBRD staff have studied the maintenance program in great detail. Sauti developed a complete Ministry of Public Works reorganization scheme and a comprehensive road maintenance program which was approved in 1973 and has been refined since then. The A.I.D. technical review confirms the suitability of the program and, with only minor changes, concurred in the consultant's cost estimates (based on international tenders) which have been updated to reflect procurement prices from Code 941 sources of equipment during the 1975-76 procurement period. These have been checked by AID's engineers and an independent source and found reasonable. Both the type and quantity of the equipment approved for procurement are considered to be necessary to accomplish the maintenance program's purpose. The estimated costs for the commodities and the procurement services are also considered reasonable.

Sauti and MPW's 1974 and early 1975 appraisals of the quantity and condition of MPW's existing equipment was used to compile the list of additional new equipment needed to meet MPW's expanded road maintenance program's standard; including the additional equipment to handle an expanded network through to 1980. The types and numbers of equipment were selected to form a specific "mix" or "spread" of equipment to be located in each of the 10 County District workshops which would be the most efficient mix for the overall program. This equipment list has been agreed to by all parties. Equipment arrival dates are timed-in with the training of mechanics, operators and foremen, the renewal of the workshops and the ongoing reorganization of the MPW.

A proper mix of equipment and trained personnel will enable each county to initiate a systematic and regular maintenance program for its primary and secondary roads, as well as for its rural or farm-to-market roads. Maintenance schedules will be related to road conditions, and particular road's physical difficulties and traffic levels. This will lead to a greater overall output per unit of work. The GOL has agreed to provide all necessary funds to support the maintenance operations under the conditions of the IBRD/IDA financing and the AID 660-H-020 Loan. Similar provisions will be included in the proposed Loan.

All technical and engineering requirements of Section 611(a) of the Foreign Assistance Act of 1961, as amended, have been met, in that: (1) it is anticipated that the AID loan funds will be used in a technically sound manner; and, (2) technical plans necessary to carry out the project as well as reasonably firm cost estimates for completing the project have been made and have been reviewed and accepted by AID. See Annex G.

Under the new Loan, efforts to purchase items available from USG excess property stocks will be made in order to assure complete procurement of all items. See Annex C for the approved equipment procurement list.

2. Financial Analysis and Plan

A. Financial Requirements

The total estimated financial requirements of the project are listed below. These totals are greater than those noted in the CAP for Loan 660-H-020 (see AID DLC/P-1068) as the Maintenance Program (MP), (defined as the project), of the FYRMAD has been expanded in scope and intensity at the request of the GOL after review of recommendations of the Sauti consultant team and the Program Coordinator. These expanded requirements, and further financing needs to cover increased costs, have also been reviewed by the IBRD, AID and the FRG and it is expected these agencies will finance part or all of the additional needs of the program, with the GOL providing the remaining financing requirements.

1975 ESTIMATES OF FYRMAD MAINTENANCE PROGRAM FINANCIAL REQUIREMENTS
(in $ thousands)

Donor/Project Component	Foreign Exchange	Local Costs	Total Costs
1. UNDP			
FYRMAD Coordinator	190	-	190
2. IBRD/IDA			
a) Technical Assistance	935	-	935
b) Workshop Repair	750	-	750
c) Paved Road Rehabilitation 1/	-	-	-
Subtotal	-	-	(1,685)
3. FRG			
Training Program	1,900	2,500	4,400
4. AID (Maintenance Equipment)			
a. Loan 669-H-020	4,300	100	4,400
b. Proposed Loan	4,000	-	4,000
Subtotal			(8,400)

1/ Paved road rehabilitation is work being considered by the IBRD but is not being proposed for financing at this time (costs are estimated at $20 million minimum).

	Foreign Exchange	Local Costs	Total Costs
5. GOL Contributions			
a. For FYRMAD Coordinator	-	10	10
b. For IBRD Technical Assistance	-	235	235
c. For IBRD Workshop Program	-	250	250
d. For FRG Training Program	-	300	300
e. For AID Loan 660-H-020	-	250	250
f. For Proposed AID Loan	350	-	-
(Sub-totals)	(350)	(1,045)	(1,395)
TOTALS	$12,425	$3,645	$16,070

This estimated cost compares with $8.91 million which was the projected cost in 1973.

B. Financial Plan

The 1975 estimated financial plan for the Maintenance Program (MP) of the FYRMAD is shown in the table below.1/

Donor	Foreign Exchange	Local Costs	Total Costs
UNDP	190	-	190
IBRD/IDA 2/	1,685	-	1,685
FRG	1,900	2,500	4,400
AID Loan 669-H-020	4,300	100	4,400
AID Proposed Loan	4,000	-	4,000
GOL Contribution	350	1,045	1,395
	$12,425	$3,645	$16,070

The GOL capital contribution to the proposed AID financed portion of the program is $350,000. The GOL's contributions do not include the recurrent costs incurred by the GOL in running its maintenance program. These were $1.3 million expended in 1973, $1.8 million expended in 1974 and budgeted at $2.1 million in 1975. The GOL contribution for the recurrent costs on the basis of this past level of expenditures will total about $9.5 million for the 1973-1978 FYRMAD period.

1/ The 1973 cost estimate of the FYRMAD Maintenance Program was $8.91 million, including the $4.40 million AID loan 669-H-020. The 1975 estimates reflect the present estimated costs of the revised program as outlined in this paper.

2/ IBRD/IDA financing does not include the possible paved road rehabilitation work which it may consider for future funding.

C. A.I.D. Component

AID proposes to finance most of the foreign exchange costs of the revised and expanded maintenance equipment portion of the project. The new financing is expected to total $4.35 million, all foreign exchange as specified in the following table:

($ thousands)

	Foreign Exchange	Local Costs	Total Costs
AID Loan	$4,000	-	$4,000
GOL Contribution	350	-	350
TOTAL	$4,350	-	$4,350

The local costs associated with this equipment have not been broken out, but will be financed by the GOL as part of its $9.5 million contribution for recurrent expenditures over the life of the program.

The AID Loan will have the following terms: Interest: 2% during the grace period and 3% thereafter; Maturity: 40 years including a 10 year grace period; Currency of Repayment: Principal and interest to be paid in U.S. dollars

3. Economic Analysis

A. Economic and Financial Status of the GOL

Liberia's GDP at current prices rose to $500 million in 1974 from $461.1 million in 1973, an 8.5% increase, compared with an 8.6% average increase during the 1970-1973 period. Real GDP per capita, however, declined by 12.1% in 1974 to a level of $178.0, based on 1964 dollars due to population growth (3.3%) and inflation (19.5%), this GDP per capita level, nonetheless, remains among the highest in Africa.

Sharp increases in the price of iron ore, Liberia's major export, resulted in a near record balance of trade surplus of $110.9 million. Exports rose by $76.3 million, or by 23.5%, in 1974 over 1973 levels. Imports during this same period rose by $95.9 million, or by 49.6%, due mainly to increased fuel costs. The majority of Liberia's imports are for the export sector iron mines, rubber and palm oil plantations, lumbering and other operations which have recently been able to pass on most of the price increases of their imports in higher export prices. It should be noted, however, that the impressive trade surpluses continue to be offset by sizeable outflows

of profits and factor payments (which now exceed $100 million a year). Since Liberia maintains no controls over monetary movements in or out of the country, it is difficult to estimate the true balance of payments position with any degree of precision; however, the net foreign assets of the banking system- the main balance of payment indicator-declined by $4.0 million in 1974. This deficit was in contrast to the $7.8 million increase in foreign assets registered in 1973.

Government revenues from all sources increased by almost 21% during 1974, reaching $108.6 million, while budget expenditures were $108.4 million. The rise in revenue was mainly attributable to import duties which, based on ad valorem rates, reflected higher import prices. Other revenue gains were made in income taxes, non-resident taxes and maritime revenues. In 1975, the national budget projects revenues at $113.0 million, plus an additional $4.0 million to be drawn from reserves, permitting expenditures of $117.0 million. To this can be added an expected $21.0 million in external assistance (grants and loans) which will bring expenditures to approximately $138.0 million. If iron ore prices continue to remain high, total available resources could possibly be as high as $150.0 million in 1975. In addition external assistance in 1975 may exceed $30.0 million, bringing government resources up to $160 million.

The GOL's fiscal position in 1974 reflected general continued stability despite the fact that the increase cost of imports, particularly petroleum, placed Liberia slightly on the red side of the balance of payments ledger, i.e. $4 million, from its black position in 1973 of $7.8 million. Debt services payments as a percentage of current revenues, however, continued to diminish in 1974, dropping to 21% from 25.7% and 22.9% respectively in 1972 and 1973. Similarly, the amount of outstanding external debt decreased from $182.2 million in 1972 to $164.5 at the end of 1974.

External debt servicing outlays (principal and interest) and debt service ratios, during the past five years and projected through 1979 are reflected in the table below.

In projecting the debt service ratio, it is assumed that the majority of new debts will have the same terms as those recently contracted by the GOL, including a grace period of seven years. Export growth is projected to increase at an average annual rate of 7.8% during the period 1974-1979, which is down from the exceedingly high average annual increase of 17.3% for the period 1970-1974. The export projections are based on EMB/ECON estimates and assume a gradual increase in the demand for iron ore, stability and price for rubber and an increasing demand for timber.

LIBERIA'S DEBT SERVICE BURDEN
(U.S. Million)

Year	Debt Service (Principal & Interest)	Actual Exports of Goods and Services	Ratio of Debt Services to Export of Goods and Services
1970	20.6	213.7	9.6
1971	21.0	224.0	9.3
1972	20.8	244.4	8.5
1973	19.8	324.0	6.1
1974	22.9	400.3	5.7
Projected Debt Service (Principal & Interest)		Projected Exports of Goods and Services	
1975	23.2	465	5.0
1976	25.0	500	5.0
1977	28.0	525	5.3
1978	30.0	550	5.4
1979	33.0	580	5.7

Under such assumptions, the debt service ratio is projected to remain relatively stable during the period, rising only fractionally. The projected relative stability of the debt service ratio is further based on the assumption that the GOL's current policy of reducing reliance on short-maturity, hard-term suppliers' credit will continue, an assumption which may be somewhat optimistic.

B. Transport and the Liberian Economy

Liberia's physical characteristics include thick inland deciduous forests, coastal mangrove swamps, heavy seasonal rainfall and poor road-making soils, each of which contributes to a comparatively high cost of ground transportation. The difficulties and costs of transport brought about by these physical characteristics have been a significant obstacle to the country's development.

The highway system, although not well developed, is the predominent transport mode for moving passengers and non-enclave products (e.g., timber, iron ore, rubber) from the hinterland to Monrovia and other sea ports. Three short length railways (300 miles of track) serve enclave interests, primarily for transporting iron ore. No two modes of transport are very complementary, except perhaps the interphase of the railways and roads at the ports.

Until recently, there was no attempt made to formulate an overall transportation plan for Liberia. Each medium of transportation planned its own development, frequently oblivious of the plans of others. The attention that the GOL directed to the road subsector and its resources were primarily confined to construction to the neglect of maintenance. This shortcoming is recognized in the Five-Year Highway Maintenance and Development Program, which includes a substantial technical assistance and equipment procurement program aimed at improving the MPW's highway planning, programming, and maintenance capability. Intermodal coordination still needs to be studied.

Road Transport in Liberia:

Growth of the Highway System

Although approximately 4,000 miles of road have been constructed in Liberia since 1950, the road network is still inadequate for the country's size and population. It provides only 1 mile of road for every 10 square miles of land area, one of Africa's lowest ratios. In addition many of the loads are concentrated in and around Monrovia or run from the coast to mining concession areas. There are also several roads in the north central part of the country near the concession areas. Large portions of the northwest and south central areas of the country have no adequate road service. Thus, large areas of the country remain isolated, making the diffusion of economic benefits to the rural population more difficult.

Traffic Growth

There is some data available on the existing traffic flows outside Monrovia. However, since no systematic traffic count program has been initiated in Liberia, comparison of data over a period of several years does not allow meaningful conclusions. Because of: (a) 1964 traffic flow information; (b) MPW 1969 traffic surveys; (c) an origin-destination survey carried out by Sauti Consultants in 1971; and (d) traffic studies of the Monrovia area carried out in 1967 and in 1971 by Stanley Consultants as part of a feasibility study; which all estimated traffic volumes on the larger roads, some limited knowledge of traffic patterns exists. About 150 miles of Liberian roadway support more than 1,000 vehicles per day (perhaps upward of 1500 VPD), and 1,100 miles, more than 100 vehicles per day. On the amin N-S Road close to Monrovia, volumes between 2,000 and 5,000 vehicles per day were counted. On the basis of a thorough analysis of economic trends, Sauti consultants forecast that traffic on the more important roads will increase at about 5 percent per annum over the next five years. Consultants being provided under the overall project through IBRD financing will assist the MPW in establishing a systematic traffic count program.

Statistics obtained from the Ministry of Commerce and Transport indicate that the vehicle fleet grew by about 11 percent annually in the 1960s, to 23,000 units in 1970 (see Table below). About 60 percent of the 1970 fleet consisted of passenger cars, 17 percent of buses and some 23 percent of trucks. Observations show that in rural areas a higher proportion of vehicles fall in the bus/truck categories. Since 1970, the Liberian vehicle fleet appears to have stabilized. We understand, however, that the more recent figures are considered more accurate and that the total vehicle fleet is continuing to grow with much of the growth concentrated in the truck/bus categories. These trends indicate that, given the continued health of Liberia's exports, traffic should increase at least the amount expected by Sauti, especially if maintenance and construction programs are continued.

Vehicle Registration and Gasoline Consumption in Liberia

	Vehicle Registration (Units)					Gasoline Consumption (in '000 US gallons)
Year	Passenger Cars	Taxi Cabs	Trucks	Buses	Total	
1961	-	-	-	-	7,900	9,150
1962	-	-	-	-	8,500	14,400
1963	-	-	-	-	9,280	-
1964	-	-	-	-	9,500	8,800
1965	-	-	-	-	10,000	8,460
1966	5,762	1,728	2,795	1,447	11,732	10,730
1967	7,268	2,299	3,483	1,986	15,035	12,111
1968	8,919	3,434	4,543	2,785	19,681	14,340
1969	9,880	3,353	4,908	2,995	21,635	17,000
1970	9,377	4,735	5,234	3,864	23,210	19,000
1971	-	-	-	-	21,074	19,987
1972	-	-	-	-	21,295	16,098
1973	-	-	-	-	22,789	21,374
1974	-	-	-	-	-	18,891

Sources: Sauti Report, 1972
Ministry of Finance Motor Vehicle Division, Liberian Refinery Company Reports (note that there has been an increase in consumption of diesel fuel but the trend has been erratic due to other than transport use bulk purchases).

C. Economic Benefits

General:

The proposed project addresses the transport sector's highest priority need; the continued and accelerated development within the MPW of a viable maintenance capability. This will permit rehabilitation and better maintenance of Liberia's existing and expanding road network. The savings in vehicle operating costs which will result from the improved maintenance of the roads should release considerable funds which can be invested in vehicles and in other sectors of the economy. Given the competitive nature of Liberia's trucking industry, (Liberia has at least 500 independent Liberian owned small trucking firms) it is expected that a reasonable portion of the reduction in transport costs will be passed onto Liberian producers and consumers. Thus the user savings should have positive spread effects effecting more than just increased income or increased savings for road users.

Highway Maintenance Program:

Expenditures on improved road maintenance may be viewed in terms of various trade-offs: (1) road maintenance costs versus vehicle operating costs, (2) road maintenance costs versus construction or reconstruction costs, and (3) present maintenance costs versus future maintenance costs. An improvement in the MPW's maintenance program could result in net economic benefits to Liberia from: (1) savings to road users in vehicle operating costs, (2) savings in capital expenditures to the extent that improved maintenance results in delaying required investment in highway reconstruction or upgrading, (3) reduction in the cost of regular and periodic maintenance as a result of greater efficiency of operation, (4) greater overall transport efficiency if roads can be kept passable for longer periods during the year and (5) a potential for opening more roads, thus improving transport access if, in fact, greater overall efficiency is achieved in the maintenance program.

Information generated by SAUTI in its 1971-1972 study showed vehicle operating cost savings of from 32% to 40% on improving a laterite road from poor condition to good condition. Other generalized worldwide figures place the savings at slightly above 40%.

We do not have an exhaustive survey of the present extent and condition of the road network, a continuing traffic count analysis and fully reliable information on the present per mile costs of rehabilitation and maintenance of the various classes of roads in Liberia. However, we do have enough information to suggest that a properly run maintenance effort will provide overall discounted net economic benefits to Liberia in wide excess of the 12% cost of capital generally used to establish a base capital opportunity cost for public sector investments in

Liberia. Sauti is well aware of the trade-offs noted in the first paragraph of this section and is attempting to find the best options for the MPW.

We know there has been a continued steady deterioration in the condition of Liberia's public roads since 1971. Improvements in the MPW have not been translated into improvements in road maintenance because of the original lack of equipment and the deadlining of some of the available equipment since 1972 (mainly due to age). The impact of an intense maintenance effort will be greater now than in 1971-72 because of the greater potential user savings.

We also know from a Louis Berger report just completed for Mali that road user costs in West Africa have risen over 50% since 1972. (The causes are mainly higher gas, oil, insurance, labor and depreciation charges). Applying such positive factors (not all fully outlined above) against the overall increase in costs of the Maintenance Program in Liberia, as compared to maintenance program cost estimates made in 1972-1973 (see the Loan 669-H-020 C.A.P. AID - DLC/P-1068 of February 1973, Annex VII), the net economic internal rate of return of the overall program, based on an eight year average useful life of maintenance equipment, is still somewhat above 28%.

It is difficult to be more precise than this without an exhaustive study. Yet even if no additional benefits are assumed to accrue from the project, due either to increases in user cost savings generated from the higher user costs previously noted or from the potential user cost savings resulting from a greater mileage of roads being brought back into good condition, and if the overall project capital costs are increased by some $9.0 million (see Part III), then the project still has an economic internal rate of return of over 22% (all other Sauti figures remaining the same).

No actual sensitivity tests were applied, since the 22% internal rate of return determined above was calculated using vastly understated user cost savings given the rapid increases in vehicle operating costs since 1972. In addition, Sauti did not attempt to compute the benefits of increased agricultural production which usually occurs when transport links are improved. AID is now attempting to gather more specific data on this phenomena under a separately financed study in Liberia. Since no direct data now exists, the conservative approach of attributing no benefits from increased production was followed.

4. Social and Environmental Impact Analysis

The existing road network is clearly inadequate for Liberia's development needs, since many rural areas have no road access to market areas. Without such access, an agriculturally oriented economy cannot be developed beyond the subsistence level.

In spite of road development efforts over the past 20 years, Liberia's road network remains too small for the country's size and population, approximately one mile of road for ten square miles of territory, which is one of the smallest ratios among the West African countries. This has resulted in the isolation of many parts of rural counties and has served as a constraint to general economic development and as a production disincentive to Liberia's rural small farmers who comprise upwards of 70% of the country's population.

While several constraints have been identified in the agricultural sector, a primary inhibitor is the lack of a road transport system. Other constraints, such as lack of extension services, access to farm inputs, etc. could be diminished with rural roads and the proper maintenance of existing networks providing rural areas with reliable market access. This is not however, foreordained, but with the GOL's new emphasis on accelerating development in the traditional sectors we expect transport access should provide at least normal incentives to increased production and hence increased income in the rural areas.

Even with a limited road network, Liberia has been unable to provide adequate maintenance, partly because of the rapid growth of the road network, partly because of the higher than anticipated traffic volume which has resulted in relatively rapid road deterioration and also because of an inadequate budget for the MPW. The result is continued high transport costs which constitute a bar to economic growth.

Because of the nature of the project, it is not realistic to assume a high degree of direct social impact in the area affected. Certainly the project can be justified, but its justification takes the form of economic and financial considerations benefitting Liberia as a nation, and since the GOL is firmly committed to its FYRMAD program, political considerations should not be overlooked. This is not to say, however, that no positive social effects can be expected.

Some of the direct economic and social benefits due to improved road conditions through improved road maintenance, have been mentioned in Part III above. Other socio-economic benefits resulting from improved road conditions improving the access between the rural sector of the population and economy with the urban/economic centers are difficulty to quantify, but still significant.

It can reasonably be assumed that with improved road conditions there will be greater access of the rural sector's population to and perhaps creation of new or improved markets, employment opportunities and public and private services. Such services as health facilities, postal and other Government services, educational opportunities, and integration of formerly isolated areas into the national administrative structure could all develop faster.

The overall rusult would be, measurable "improved economic and social integration of poor Agrarians through increased access to needed goods, services and markets in the rural areas." *

A. Beneficiaries

The main beneficiaries of an improved and expanded transport system would be Liberia's road users and the subsistence farmers who comprise about 70% of the country's population and whose per capita income is approximately $70 per year. With the lack of feeder roads and/or properly maintained routes of access to markets, Liberia's traditional farmers tend to produce only enough to meet their own family needs, plus possibly a small excess which they might be able to carry by head-load on foot paths to the nearest rural settlement.

Secondary benefits of the project would impact upon smaller segments of the population engaged in commercial or other sector pursuits. An improved road network would serve as an incentive to expanded forestry production due to greater accessibility to exploitable timber areas with a consequent expected rise in employment in this relatively labor intensive sector. The rural commercial sector should benefit with increased accessibility to a wider range of commodities which might be offered to the rural consumer thus tending to increase volume turnover (assuming latent demand for a wider range of goods and increasing rural purchasing power).

Additional secondary economic impact should result from the anticipated increase in agricultural and forestry output in the form of increased public revenue resulting from domestic and export crop taxation. While the contribution of an expanded and upgraded road network can make to increasing public revenue cannot be forecast with any accuracy, some reasonable increase can be expected.

In addition to purely economic benefits, there are social advances occurring from an expanded and properly maintained road system. These social amenities include greater access to clinics, schools and other public services. As an example, the GOL and private mobile health units are presently restricted to providing services to that small portion of the rural population living in areas contiguous to the existing road network. These types of public services are also seasonally restricted due to the impassability of many roads during the long, five-month rainy season.

B. Environmental Assessment

Although virtually all AID activities concerned with raising basic living standards can be considered "environmental" in nature, for the purposes

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* See master Log Frame, Annex D.

of this paper environmental activities are construed to be those which, by deliberate design, seek to improve or protect the quality of air, water and land resources by (1) mitigating undesirable effects of development projects or commodities financed under the Foreign Assistance Act through project design and review and (2) building and strengthening the indigenous capabilities of development countries through programs of education, training and research to assess and prevent environmental degradation.

This project will not produce a significant direct environmental impact, since it involves the procurement of road maintenance equipment which will be used in maintaining Liberia's road network. The equipment will be used to reshape and regrade the roads and improve parallel drainage. Therefore, the effects of this project on the local environment will be minimal and in some cases beneficial, since improved road maintenance will lessen the erosion effects of poor drainage and reduce local bypasses of poor roads that in some areas tend to create a web of parallel roads precluding the use of such land for other purposes.

The equipment selected for procurement will include oil-derivative fuel-burning engines, but they will be equipped with normal pollution control devises required under U.S. Legislation at the time of manufacture.

The equipment operator training program, financed by the FRG, will result in a better trained work force which will help reduce poor road maintenance techniques which could cause excessive dust, erosion, or lead to parallel roads.

The project should have a beneficial impact on the human environment in Liberia. The reader is referred to Parts III C and III D of the paper for more information of the project's expected benefits.

Roads encourage development, which then effects the environment. AID is studying the effects of rural penetration roads in Liberia in a two-phased study which will provide reliable baseline data which will be used in road and integrated rural development planning in Liberia. While this study is not a direct part of this project, it is linked to the FYRMAD and Liberia's efforts in opening rural areas. We expect that the findings of this study will have an overall positive impact on Liberia's total physical, social and economic environment.

C. Role of Women

Improved roads produce a tangible effect on women's lives over a period of time. Liberian women, as in much of Africa, are often doubly subjugated to the constraints of primitive traditional techniques, first as the primary cultivator of subsistence crops for the family they

are called upon to work long hours with rudimentary tools and with little knowledge of scientific farming methods, and, secondly, as mothers of large families they are obliged to nourish and to attend to their children without modern nutritional or medical care information. It has been often graphically illustrated in Africa, that the opening of new or improved transport systems is accompanied by an important revision of the role of women in the traditional society and an improvement in the feminine condition.

The improvement in the road network will lead to year round access to markets and social services for areas previously isolated in the rainy season and will lead to stronger possibilities in rural/agricultural investments in thrust of the GOL's new plans to integrate more of the rural areas into the mainstream of the economy.

IV. Implementation Plan

1. Administration and Procurement

The Ministry of Public Works (MPW) through its Public Works Department (PWD) is responsible for administration of the public road network and of all public properties. It performs its functions through four Bureaus: Administrative Services, Technical Services, Operations, and Construction. Under the ongoing reorganization of MPW, the Bureau of Operations is being reorganized and a Planning Division established within MPW.

PWD's Bureau of Operations' maintenance of the roads is performed through a reorganized system of 10 country districts (2 in Montserrado Country), each headed by a resident engineer who has an operations staff and a workshop/repair center. Maintenance and repair of equipment is done by the Bureau's Mobile Equipment Division which is comprised of the Central Workshop at Monrovia and nine field stations. The 1972 SAUTI study on highway maintenance had stressed the need to reorganize present operations by introducing efficient techniques, training personnel, and rehabilitating and expanding MPW's equipment fleet, these recommendations are now being implemented with under the 1973 multi-donor Liberia Road Maintenance project. Overall program guidance by the program coordinator is UNDP funded and technical assistance is being provided by the SAUTI consultants, funded under the 1973 IBRD loan. AID's Loan 020 (1973) provided funds for new road maintenance equipment purchases including relating procurement services.

In this regard, MPW has an AID approved procurement services contract with the African American Purchasing Center (AAPC) for its 1973 AID loan, who will also handle the procurement under the proposed loan. AAPC, as the procurement agent for the GOL, is required to provide complete procurement and delivery service for the AID loan financed road maintenance equipment and spare parts. Those services include preparing final detailed specifications and IFB documents, bid analyses, negotiations and recommendations, physical inspections of items prior to shipment to

Liberia and providing the services of an equipment specialist to assist with procurement implementation planning. We will require a similar arrangement for the procurement contemplated under the proposed loan.

The deposition and use of the equipment once purchased and shipped by AAPC becomes the responsibility of the MPW. With SAUTI's assistance the MPW has prepared an AID/IBRD approved plan for the inspection, testing, acceptance, deployment and use of the equipment after its arrival in Liberia. Trained operators, improved workshop repair capacity, realistic planning and operational activities and other necessary components of a good public works department are all part of the assistance being fed into the GOL/FYRMAD program. This should facilitate the project's success.

USAID/Liberia will have the responsibility for the management and implementation and reporting of AID's participation in this loan and will also provide general liaison assistance to the GOL. USAID/Liberia is now performing these functions under loan 020. REDSO/WA is responsible for AID approvals of project contracts, technical specifications of equipment, related IFB documents and for providing general technical and financial support to USAID/L.

All activities directly related to the loan implementation, whether carried out by AID, the GOL or by AAPC have to be coordinated into the overall activities under the FYRMAD and more specifically the activities under the MPW. Thus, all major "events" under the proposed loan, once the loan agreement is signed will be closely coordinated by USAID/L with the proper GOL officials, SAUTI personnel, the FYRMAD Program Coordinator and AAPC, as required.

As noted previously in Part II the basic equipment requirements of the MPW have been in a state of flux. The scope of the FYRMAD has increased, much equipment still usable in 1971/72 is now marginal or useless, and the consultants and AID/AAPC have recommended some changes in the mix of equipment over the past eighteen months.

This led to the preparation of the new equipment list fully agreed upon by all concerned parties. The costs of procuring and shipping the equipment to Liberia have been worked out on the basis of early 1976 prices, quoted and/or estimated by manufacturers/shippers. (See detailed equipment list, Annex C).

A basic implementation timetable is shown below.

ACTION	DATE
Loan Authorized	June 1975
Loan Agreement signed	September 1975
Amendment of AAPC procurement contract with GOL	October 1975
Advertisement to solicit bids	October 1975
Bid Awards	January 1976
First Tranche of equipment arrives	June 1976
All equipment in country	November 1976

2. Evaluation

AID will evaluate this project and the 020 loan in the mid summer of 1976. The evaluation will determine the effectiveness of the AID loan from different angles and provide AID with information as to the value and effectiveness of the FYRMAD and the MPW. The evaluation team should include at least one MPW operations or planning officer (both preferably) and one of the SAUTI consultants. These people cannot be expected to be called on for an extensive evaluation or assessment but their point of views should broaden the evaluation information base.

The final composition of the AID team should not be predetermined now but should consist of at least one evaluation officer, an engineer and a project officer. See annex E-3 for details.

3. Conditions Precedent

In addition to standard AID loan conditions precedent, the following conditions will be discussed with the GOL during the negotiation of the loan and will be included in the Loan Agreement conditions precedent as appropriate:

A. Conditions precedent to initial disbursement for procurement services:

(1) evidence of adequate financial support by the GOL to meet local costs of the project and to assure implementation of an effective road maintenance program.

(2) an executed contract for procurement services for this project, acceptable to AID with a firm acceptable to AID.

B. Conditions precedent to initial disbursement for equipment and spare parts:

(1) a list of road maintenance equipment to be procured under the loan.

(2) road maintenance specifications and tender documents for all equipment and spares acceptable to AID.

4. Special Covenants

The Loan Agreement will also contain special covenants assuring continued GOL support to (1) the technical assistance training program financed by the FRG, and (ii) consulting services for MPW reorganization and workshop rehabilitation financed by IBRD/IDA. The Loan Agreement will request signed or certified copies of agreements or other evidence acceptable to AID that these programs are continuing in effect.

The terminal dates for meeting major actions under the loan will follow the guidelines of PD-57. All loan disbursements will be completed within 36 months of the loan agreement execution.

CHECKLIST OF STATUTORY CRITERIA

Liberia: Road Maintenance Equipment Loan

The following abbreviations are used:

FAA - Foreign Assistance Act of 1961, as amended.

FAA, 1973 - Foreign Assistance Act of 1973.

App. - Foreign Assistance and Related Programs Appropriation Act, 1974.

MMA - Merchant Marine Act of 1936, as amended.

BASIC AUTHORITY

1. FAA § 103; § 104; § 105; § 106; § 107. Is loan being made

a. for agriculture, rural development or nutrition;	No.
b. for population planning or health;	No.
c. for education, public administration, or human resources development;	No.

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d. to solve economic and social development problems in fields such as transportation, power, industry, urban development, and export development;	Yes.
e. in support of the general economy of the recipient country or for development programs conducted by private or international organizations.	No.

COUNTRY PERFORMANCE

Progress Towards Country Goals

2. FAA § 201 (b) (5), (7) & (8); § 208

A. Describe extent to which country is:

(1) Making appropriate efforts to increase food production and improve means for food storage and distribution.

The GOL's five year development plan 1972-1976 for Agriculture and Forestry puts the agriculture sector as top priority in development of the economy. A primary goal is to diversify agriculture production by increasing production of rice, tree crops, and livestock production. There are price support schemes, and new milling and warehouse facilities. Improved roads will have direct beneficial effects

(2) Creating a favorable climate for foreign and domestic private enterprise and investment.

Liberia has reaffirmed the Open Door Policy by creating incentives to investors and to attract foreign investment, which is responsible for most of the economic development of the country. Both foreign investment and national entrepreneurs are encouraged to participate.

(3) Increasing the public's role in the developmental process.

The government's policy is to create balanced and sustained economic progress of all parts of the country through integrated rural and urban regional development programs. Considerable efforts are being made in the educational field at all levels.

(4) (a) Allocating available budgetary resources to development.	For past 2 years, GOL has allocated average of 13% of its budget for development, up from 11% in 1972.
(b) Diverting such resources for unnecessary military expenditure (See also Item No. 20) and intervention in affairs of other free and independent nations.) (See also Item No. 11).	The level of military expenditure is minimal (6% budget in 1971) and limited to that required to insure internal order and stability.
(5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.	The GOL has recently taken steps to strengthen government operations and tighten management and administrative practices. President Tolbert has taken disciplinary action against several officials for corruption, and introduced new tax measures. More land is being made available for production, and there is considerable freedom of the press.
(6) Willing to contribute funds to the project or program.	
(7) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.	The GOL is attempting, through the building of a resource base by increasing export crops & through agricultural projects aimed at the village level, to effectuate economic and social reforms for the improvement of living standards. Improved highway maintenance can play an important role with respect to improving the standard of living.
B. Are above factors taken into account in the furnishing of the subject assistance?	Yes.

Treatment of U.S. Citizens and Firms.

3. FAA § 620 (c). If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?

No. None to our knowledge.

4. FAA § 620 (e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

No.

5. FAA § 620 (o); Fishermen's Protective Act. § 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters,

No.

a. has any deduction required by Fishermen's Protective Act been made?

No.

b. has complete denial of assistance been considered by A.I.D. Administrator? N/A

Relations with U.S. Government and Other Nations

6. FAA § 620 (a). Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba? No.

7. FAA § 620 (b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? Yes.

8. FAA § 620 (d). If assistance is for any productive enterprise which will compete in the United States with United States enterprise, is there an agreement by the recipient country to prevent export to the United States of more than 20% of the enterprise's annual production during the life of the loan? Not Applicable.

9. FAA § 620 (f). Is recipient country a Communist country? No.

10. FAA § 620 (i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? — No.

11. FAA § 620 (j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? — No.

12. FAA § 620 (l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the A.I.D. administration within the past year considered denying assistance to such government for this reason? — Not Applicable

13. FAA § 620 (n). Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam? — No.

14. FAA § 620 (q). Is the government of the recipient country in default on interest or principal of any A.I.D. loan to the country? — No.

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15. FAA § 620 (t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

No.

16. FAA § 620 (u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget?

To the best of our knowledge Liberia is up to date on its U.N. dues, assessments, and other obligations. Yes, the loan agreement limits the use of loan funds for the specific project.

17. FAA §§ 481. Has the government of recipient country failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?

No.

18. FAA, 1973 §§ 29. If (a) military base is located in recipient country, and was constructed or is being maintained or operated with funds furnished by U.S., and (b) U.S. personnel carry out military operations from such base, has the President determined that the government of recipient country has authorized regular access to U.S. correspondents to such base?

Not Applicable

Military Expenditures

19. FAA s 620 (s). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC).)

An average of 6% of GOL's budget expenditures have gone for national military purposes for past 4 years. The AID "annual 620 (S) Assessment" for FY 74 determined that Liberia would not be precluded from eligibility for AID assistance.

Conditions of The Loan

General Soundness

20. FAA s 201 (d). Information and conclusion on reasonableness and legality (under laws of country and the United States) of lending and relending terms of the loan.

Negotiated lending terms were deemed mutually reasonable and acceptable, being the same terms so considered in other prior loans and is in keeping with current AID policy and practice.

21. FAA s 201 (b) (2); s 201 (c) Information and conclusion on on activity's economic and technical soundness. If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds $100,000, has country submitted to A.I.D. an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

Yes. See PART III.

22. FAA s 201 (b) (2). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.

GOL has capacity and means of loan repayment, terms of which have been mutually determined to be reasonable.

23. FAA s 201 (b) (1). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.

Other free-world donors are contributing to the 5-year Road Maintenance and Development Programs, but there are no known agencies nor funds available for this project.

24. FAA s 611 (a) (1). Prior to signing of loan will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the United States of the assistance?

Yes. See PART III AND THE LOAN AGREEMENT.

25. FAA s 611 (a) (2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of loan?

No further legislative action required.

26. FAA s 611 (e). If loan is for Capital Assistance, and all U.S. assistance to project now exceeds $1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

Yes. See Annex H.

Loan's Relationship to Achievement of Country and Regional Goals

27. FAA s 207; s 113
Extent to which assistance reflects appropriate emphasis on; (a) encouraging development of democratic, economic, political, and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the country's health needs;
(d) An improved road network will make health services more accessible to rural areas served by the network.

(a) Loan will aid the Ministry of Public Works to become more institutionally and physically capable of maintaining the road network.

(b) Improved road network maintenance will improve access to markets which will stimulate greater food production.

(c) Commodities purchased by this loan will be used in conjunction with an integrated managerial and technical training program within the Ministry of Works.

(e) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (f) integrating women into the recipient country's national economy.	(e) All of these important areas are expected to benefit from an improved road network which will reduce vehicle operating costs, food and commodity transportation costs and improve accessibility to markets public and private health, education and employment services and opportunities.
28. FAA § 209. Is project susceptible of execution as part of regional project? If so why is project not so executed?	No. Project is basically directed to internal national development.
29. FAA §§ 201 (b) (4). Information and conclusion on activity's relationship to, and consistency with, other development activities, and its contribution to realizable long-range objectives.	Project conforms to current emphasis of both GOL and USA towards development in the agriculture, health and education sectors through improved communication and reduced costs of transportation.
30. FAA §§ 201 (b) (9). Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth.	As indicated in this PP, this project will perform an integrating function with respect to multinational economic activity in Liberia. Thus, an expanded and improved communications network is a long-term objective of the GOL.
31. FAA § 209: Information and conclusion whether assistance will encourage regional development programs.	The project's improved national road system would lend itself readily to considerations of future regional and/or international development programs.

32. FAA s 111. Discuss the extent to which the loan will strengthen the participation of urban and rural poor in their country's development, and will assist in the development of cooperatives which will enable and encourage greater numbers of poor people to help themselves toward a better life.

See No. 27 above, all of which will enure to the rural and urban poor as intended by the GOL's new development policy.

33. FAA s 201 (f). If this is a project loan, describe how such project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development.

A prerequisite to a national expansion of Liberia's existing road network into rural areas is the development of an adequate road maintenance capacity by the GOL. This project is designed to assist the GOL in achieving that objective. See also, Master Log Frame, Annex F, "Program Goal and Project Purpose."

34. FAA s 281 (a). Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private, and local governmental institutions.

Better communications will provide greater national and international contact and exchange and permit the Government to be more responsive to the needs of the people. See also No. 27 above.

35. FAA s 281 (b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

See Nos. 27, 33 and 34 above.

36. FAA § 201 (b) (3). In what ways does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities?

See PART III (3), "Economic Analysis", in body of PP, concerning increased development and production of timber, mining and agricultural resources.

37. FAA § 601 (a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

See PART III.

38. FAA § 619. If assistance is for newly independent country, is it furnished through multilateral organizations or plans to the maximum extent appropriate?

Not available.

Loan's Effect on U.S. and A.I.D. Program

39. FAA § 201 (b) (6). Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substaitial labor surplus, and extent to which U.S. commodities

All of the loan will be used for the procurement of Code 941 goods and services. However, because of the technical requirements only U.S. firms will be able to supply the necessary equipment. (See PART [illegible], "Implementation Plan."

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and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.

40. FAA § 202 (a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.

The entire loan will be used to procure goods and services from U.S. private enterprises.

41. FAA § 601 (b). Information and conclusion on how the loan will encourage U.S. private trade and investment abroad and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

No direct private investment is involved, but many private U.S. firms will knowingly be involved with manufacturing and supplying goods and services in this foreign assistance program.

42. FAA § 601 (d). If a capital project, are engineering and professional services of U.S. firms and their affiliates used to the maximum extent consistent with the national interest?

Yes. No private engineering services were required beyond those of the Agency, but private professional procurements services will be utilized in the project.

43. FAA § 602. Information and conclusion whether U.S. small business will participate equitably in the furnishing of goods and service financed by the loan.	Standard AID procedures will be followed to provide notice of intended procurement to U.S. small businesses.
44. FAA § 620 (h). Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?	No.
45. FAA § 621. If Technical Assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.	Not Applicable.
Loan's Compliance with Specific Requirements	
46. FAA § 110 (a); § 208 (e). In what manner has or will the recipient country provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the Loan is to be made?	Not applicable. This loan is a coordinated and integral part of genuine multi-donor project as defined and exempted in Sec. 110 (a).

47.	FAA § 112. Will loan be used to finance police training or related program in recipient country?	No.
48.	FAA § 114. Will loan be used to pay for performance of abortions or to motivate or coerce persons to practice abortions?	No.
49.	FAA § 201 (b). Is the country among the 20 countries in which development loan funds may be used to make loans in this fiscal year?	Yes.
50.	FAA § 201 (d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter?	Yes.
51.	FAA § 201 (f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise?	Public announcement of the intended procurement will be published in local newspapers in Liberia.
52.	FAA § 604 (a). Will all commodity procurement financed under the loan be from the United States except as otherwise determined by the President?	Yes. See PART III (1).

53. FAA § 604 (b). What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U.S. market price?

Competitive requests for proposals will be sent to pre-qualified firms for final negotiation of contract terms and prices.

54. FAA § 604 (d). If the cooperating country discriminates against U.S. marine insurance companies, will loan agreement require that marine insurance be placed in the United States on commodities financed by the loan?

Yes. See draft Loan Agreement Sec. 5.09.

55. FAA § 604 (e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity?

Not Applicable.

56. FAA § 604 (f). If loan finances a commodity import program, will arrangements be made for supplier certification to A.I.D. and A.I.D. approval of commodity as eligible and suitable?

Yes.

57. FAA § 608 (a). Information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.

See Sec. 5.11 of draft Loan Agreement.

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58. FAA s 611 (b); App. s 101. If loan finances water or water-related land resource construction project or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962?	Not Applicable.
59. FAA s 611 (c). If contracts for construction are to be financed what provision will be made that they be let on a competitive basis to maximum extent practicable?	Not Applicable.
60. FAA s 612 (b); s 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the United States are utilized to meet the cost of contractual and other services	All loan funds must be used for foreign exchange cost of project commodities and related procurement services, both of probable U.S. source and origin. The loa agreement will require GOL to meet any/all project cost overruns, which would include local costs. See also, GOL contracts with consultants and agent.
61. App. s 113. Will any of loan funds be used to acquire currency of recipient country from non-U.S. Treasury sources when excess currency of that country is on deposit in U.S. Treasury?	No.
62. FAA s 612 (d). Does the United States own excess foreign currency and, if so, what arrangements have been made for its release?	No.

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63. FAA s 620 (g). What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property?	Terms of Loan Agreement restrict use of loan funds to specific commodities' procurement and related services only.
64. FAA s 620 (k). If construction of productive enterprise, will aggregate value of assistance to be furnished by the United States exceed $100 million?	No.
65. FAA s 636 (i). Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States or any guaranty of such transaction?	No.
66. App. s 103. Will any loan funds be used to pay pensions, etc., for military personnel?	No.
67. App. s 105. If loan is for capital project, is there provision for A.I.D. approval of all contractors and contract terms?	Yes.
68. App. s 107. Will any loan funds be used to pay UN assessments?	No.

69. App. s 108. Compliance with regulations on employment of U.S. and local personnel. (A.I.D. Regulation 7).	Yes.
70. App. s 110. Will any of loan funds be used to carry out provisions of FAA s s 209 (d)?	No.
71. App s. 114. Describe how the Committee on Appropriations of the Senate and House have been or will be notified concerning the activity, program, project, country, or other operation to be financed by the Loan.	A formal notification will be sent after final Agency approval.
72. App. s 601. Will any loan funds be used for publicity or propaganda purposes within the United States not authorized by Congress?	No.
73. MMA s 901. b; FAA s 640 C.	
(a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed with funds made available under this loan shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates.	(a) Yes.
(b) Will grant be made to loan recipient to pay all or any portion of such differential as may exist between U.S. and foreign-flag vessel rates?	(b) No.

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74. Section 30 and 31 of PL 93-189 (FAA of 1973).
Will any part of the loan be used to finance directly or indirectly military or paramilitary operations by the U.S. or by foreign forces in or over Laos, Cambodia, North Vietnam, South Vietnam, or Thailand? — No.

75. Section 37 of PL 93-189 (FAA of 1973); App. s. 111. Will any part of this loan be used to aid or assist generally or in the reconstruction of North Vietnam? — No.

76. App. s 112. Will any of the funds appropriated or local currencies generated as a result of AID assistance be used for support of police or prison construction and administration in South Vietnam or for support of police training of South Vietnamese? — No.

77. App. s 604. Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to Southeast Asia for use by non-U.S. nationals? — No.

ANNEX G.

LIBERIA: ROADS MAINTENANCE EQUIPMENT AND SPARE PARTS LOAN

CERTIFICATION PURSUANT TO SECTION 611(e) OF THE

FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, Stanley J. Siegel, Director of the U.S. A.I.D. Mission to Liberia, do hereby certify that in my judgment the Republic of Liberia will have the financial capability and the human resources capability to implement, maintain, and utilize effectively the subject capital assistance project. This certification takes into consideration the requirements placed on the Republic of Liberia to maintain and utilize other projects previously financed or assisted by the United States.

This judgment is based on the fact, inter alia, that:

1. The Government has given a high priority to the construction and maintenance of the road network as an essential element in its development plan, and

2. It has utilized successfully capital assistance provided under other A.I.D. projects and has given assurances of improved performance in maintaining those projects.

Stanley J. Siegel

Aug 19, 1975

Date

ANNEX H

DRAFT LOAN AUTHORIZATION

A.I.D. Loan No. 669-T-022
Provided under FAA Section 106
For: Liberia Road Maintenance Equipment Loan

Pursuant to the authority vested in the Administrator of the Agency for International Development ("A.I.D.") by the Foreign Assistance Act of 1961, as amended ("Act") and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Section 106 of such Act to the Government of the Republic of Liberia ("Borrower") of not to exceed Four Million Dollars ($4,000,000) to assist in financing the U.S. dollar cost of procurement of road maintenance equipment, vehicles and spare parts; radio communications equipment; traffic counting devices; and procurement services. The loan to be subject to the following terms and conditions:

1. Terms of Repayment and Interest

   Borrower shall repay the Loan to A.I.D. in United States dollars within forty (40) years from the date of the first disbursement under the Loan, including a grace period of not to exceed ten (10) years.

   Borrower shall pay to A.I.D. in United States dollars at the rate of two percent (2%) per annum during the grace period and three percent (3%) per annum thereafter on the outstanding disbursed balance of the Loan and any due and unpaid interest accured thereon.

2. Other Terms and Conditions

   Goods and services financed under the Loan shall have their source and origin in countries including in A.I.D. Geographic Code 941, provided, however, that marine insurance may be financed under the Loan only if it is obtained on a competitive basis and any claims thereunder are payable in freely convertible currencies.

   The Loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

_____
Asst. Administrator

_____
Date

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Current Cost Extimates of Liberia's Five Year Highway Maintenance and Development Program (1973-77)

Project Item	Actual or Expected Source of Financing	(US $ Thousands) Local	Foreign	Total
A. Maintenance Program				
1. FYRMAD Coordinator	UNDP	-	190	190
2. Technical Assistance	IBRD	-	935	935
3. Workshop Repair	IBRD	-	750	750
4. Training	FRG	2,500	1,900	4,400
5. Equipment and Spares				
AID Loan 669-H-020	AID	100	4,300	4,400
Proposed AID Loan	AID	-	4,000	4,000
6. Paved Road Rehabilitation 1/	IBRD	-	-	-
7. GOL Direct Program Support	GOL	1,045	350	1,395
Subtotal A		3,645	12,425	16,070
B. Primary Roads				
1. Port Access Roads/ Bridge 1/	IBRD	-	-	-
2. Sierra Leone-Liberia	ADB	590	2,430	3,020
3. Totota-Ganta	IBRD	5,620	11,380	17,000
4. Un Drive-Mt. Coffee	IBRD	720	1,440	2,160
5. Tubman Bridge-Bomi Hills	ADB	2,580	5,900	8,480
6. Kakata-Totota	FRG	-	Grant	-
7. Ganta-Sanniquellie	N.C.	-	-	-
8. Ganta-Tapeta	N.C.	-	-	-
9. Tafuke-Kaloke	N.C.	-	-	-
Subtotal B		9,510 2/	21,150	30,660
C. Secondary Roads				
1. Sagleipie-Sanniquellie 3/	AID	770	2,320	3,090 5/
2. Plibo-Barclayville 3/	AID	370	2,045	2,415 5/
3. Buchannah Rivercess 4/	Possible AID	1,115	8,000	9,115
4. Brewerville-Konia 4/	Possible AID			
Subtotal C		2,255	12,365	14,620
TOTALS A+B+C 6/		15,410	45,940	61,350

Footnotes

1/ IBRD may provide foreign exchange financing at later date

2/ GOL would provide major portion of this local cost estimate

3/ Being financed under AID loan 669-H-019. The GOL is providing a minimum of $375,000 of local currency to support these projects

4/ May be partially financed under proposed rural roads AID loan

5/ IBRD Spring 1975 Mission to Liberia estimates. AID feels estimates may be high for item C-2 and low for items C-3 and C-4

6/ Does not include costs for items A-6, B-1, B-6, B-7, B-8 or B-9 which are not being considered for financing at this time

ANNEX C.

Detailed Cost Estimates of Equipment to be Financed by AID Loan

ITEM	DESCRIPTION	UNIT	ESTIMATED UNIT PRICE (FAS BALT.) $1,000	ESTIMATED TOTAL PRICE (FAS BALT.) $1,000
1	Dump Truck 6 c.y. 4x2	66	20.	1,320
2	Water Tank Truck 2500 gals. 6x4	19	24.	456.
3	Fuel Tank Truck 2000 gals. 4x2	2	22.	44.
4	Asphalt Distributor 1500 gals.	1	22.	22.
5	Road Patching Truck 4x2	2	22.	44.
6	Wrecker 4x2	2	25.	50.
7	Pick Up 3/4 Ton (4x2)	44	6.5	286.
8	Mech. Service Truck Tools 3/4T(4x2)	8	8.0	64.
9	Workshop Van (Towed)	4	70.0	280.
10	Vibr. Hand Compactor (Soil)	12	2.0	24.
11	Vibr. Hand Compactor (Asphalt)	2	2.0	4.
12	Wheel Tractor	2	10.0	20.
13	Rotary Brooms	2	2.5	5.
14	Pneumatic Roller Self-Propelled	12	18.0	216.
15	Steel Tandem Roller Self-Propelled	1	15.0	15.
16	Spreader Box	6	2.0	12.
17	Portable Concrete Mixer (7.S)	2	5.0	10.
18	Asphalt Finisher	1	48.0	48.
19	Striping Machine	1	2.0	2.
20	Traffic Counter (rec./Visual)	R10/V20	L.S.	25.
21	Radio Equipment Complete	L.S.	L.S.	90.
22	Portable Weigh Bridge	2	10.0	20.
			TOTAL	3,057.
			Spares 10%	306.
			Sub-Total	3,363.
			AAPC Procurement Services	167.
				3,530.
			Shipping and Insurance	670.
				4,200.
			Contingency	150.
			Estimated Total Cost	$4,350.

ANNEX D
PAGE I

AID 1020-23 (7-71)
SUPPLEMENT I

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

Project Title & Number: Master Log Frame
Liberia Highway Maintenance Equipment

Life of Project:
From FY _____ to FY _____
Total U. S. Funding _____
Date Prepared: _____

PAGE 1

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to which this project contributes:	Measures of Goal Achievement:		Assumptions for achieving goal targets:
Improved economic and social intergration of poor agrarians though increased access to needed goods, services and markets in rural areas.	1. Reduced transport costs and increased utilization of goods and services. 2. Increased usage of health services and consolidated rural school schools. 3. Annual upgrading of 120 miles of roads to all weather accessible standard beginning 1977.	National commerce figures.	Upgraded roads result in increased access and reduced transportation costs.
PURPOSE: MPW institutionally and physically capable of maintaining national road system to acceptable standards.	1. All road maintenance equipment deployed in 10 Districts per Sauti Plan by mid-1976. 2. 40% of trained personnel employed by MPW actually performing scheduled maintenance at any time beginning 1976. 3. 90% equipment in operating condition at all times, 70% utilization for road maintenance purposes BEGINNING 1977. 4. MPW operating maintenance program at same level of effectivness w/o consultant advisors by 1978.	MPW manpower statistics Spot checks of district offices and roads.	1. MPW STAFF SUFFICIENTLY MOTIVATED TO MAKE OPTIMUM USE OF THEIR UP-GRADED SKILLS. 2. ALL MULTI-DONOR ROAD CONSTRUCTION PROJECTS IMPLEMENTED AS PLANNED. 3. SUFFICIENT TRANSPORT CAPACITY WILL EXIST IN PRIVATE SECTOR TO ACCOMMODATE INCREASED COMMERCE.

AID 1020-28 (7-71)
SUPPLEMENT I

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number:

Life of Project:
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs: necessary and su sufficient to achieve prupose.		Affecting output-to-purpose link:
1. Reorganized and well managed MPW Maintenance and Construction Division.	1. Existing maintenance districts redefined to achieve uniform work-loan.	MPW statistics	
	2. Maintenance equipment and staff in each district proportional to road mileage and maintenance requirements.		1. Road maintenance has high priority in GOL budget (necessary funds provided).
	3. Direct authority lines between Construction Maintenance Divisions and 8 Maintenance District Offices.		2. GOL continues training after FRG advisors depart.
	4. Reorganization complete by 1978		3. MPW is provided with adequate fud supply.
	5. Administrative and technical staff possess skills required to satisfactorily perform jobs.		4. MPW road maintenance equipment wil not be diverted to non-road usage.
2. Operational Personnel trained	1. 267 equipment operators, mechanics, electricians provided training required for jobs by July - 76.	FRG training records	5. Trainees will go to work for MPW.
	2. 90% operational personnel possess skills required for satisfactory performance in assigned job jobs by July - 76.	FRG and MPW tests	
	3. Quantity and quality of trained personnel adequate to meet required maintenance loads (routine, preventive, restorative) per manufactures standards.	Evaluation of maintenance work performed.	

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AID 1025-29 (7-71)
SUPPLEMENT 1

Master Log Frame

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: Liberia Highway Maintenance Equipment

Life of Project:
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:		Assumptions for achieving outputs:
3. Effective Management System	1. Cost accounting system showing planned and actual costs of each job working by December - 76. 2. Records system showing status of all roads, equipment, and personnel in place by November 75. 3. Long term plan showing scheduled work for next 6 months (updated monthly) in place by November 75 in all Districts.	IBRD and MPW project staff. Physical inspections.	
4. Equipment and spare parts required to meet road maintenance requirements provided to MPW.	1. Equipment and spare parts meet projected needs at planned level of maintenance through 1978. 2. District office maintenance schudules not constrained by lack of equipment and parts.		
5. Efficient workshop facilities	1. Each district workshops construct and equipped with needed tools and equipment by January 76. 2. Facilities adequate to permit maintenance of MPW's existing and projected fleet of equipment until 1978. 3. Maintenance of equipment not hampered by inadequate workshop facilities.		

AID 1020-28 (7-71)
SUPPLEMENT I

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: Master Log Frame
Liberia Highway Maintenance Equipment

Life of Project:
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:		Assumptions for achieving outputs:
6. Design, Supervision, Construction and Reconstruction of Priority Roads and Road Segments: (1) - IBRD; (2) ADB; (3-6) IBRD; (7-8) AID.	Completion of upgrading of United Nations Drive, Mesurado Bridge, Monrovia By-Pass and length of Bushrod Island by start of 1977 2. Completion of Sierra Leone Road Link and Bomi Hills Roads by start of 1977. 3. Reconditioning of 70 miles of paved roads by mid-1975. 4. Paving of 85 miles of laterite road from Tototo to Ganta by end of 1975. 5. Upgrading the 15 mile Mt. Coffee Dam Road by end of 1976. 6. Upgrading of 28 mile Kakata - Totokla road by end of 1976. 7. Completion of 103 miles of z roads (SS+PB) by end of 1977. 8. Completion of 205 miles of road (B-K + Bu-River Cess)		

AID 1020-28 (7-71)
SUPPLEMENT I

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

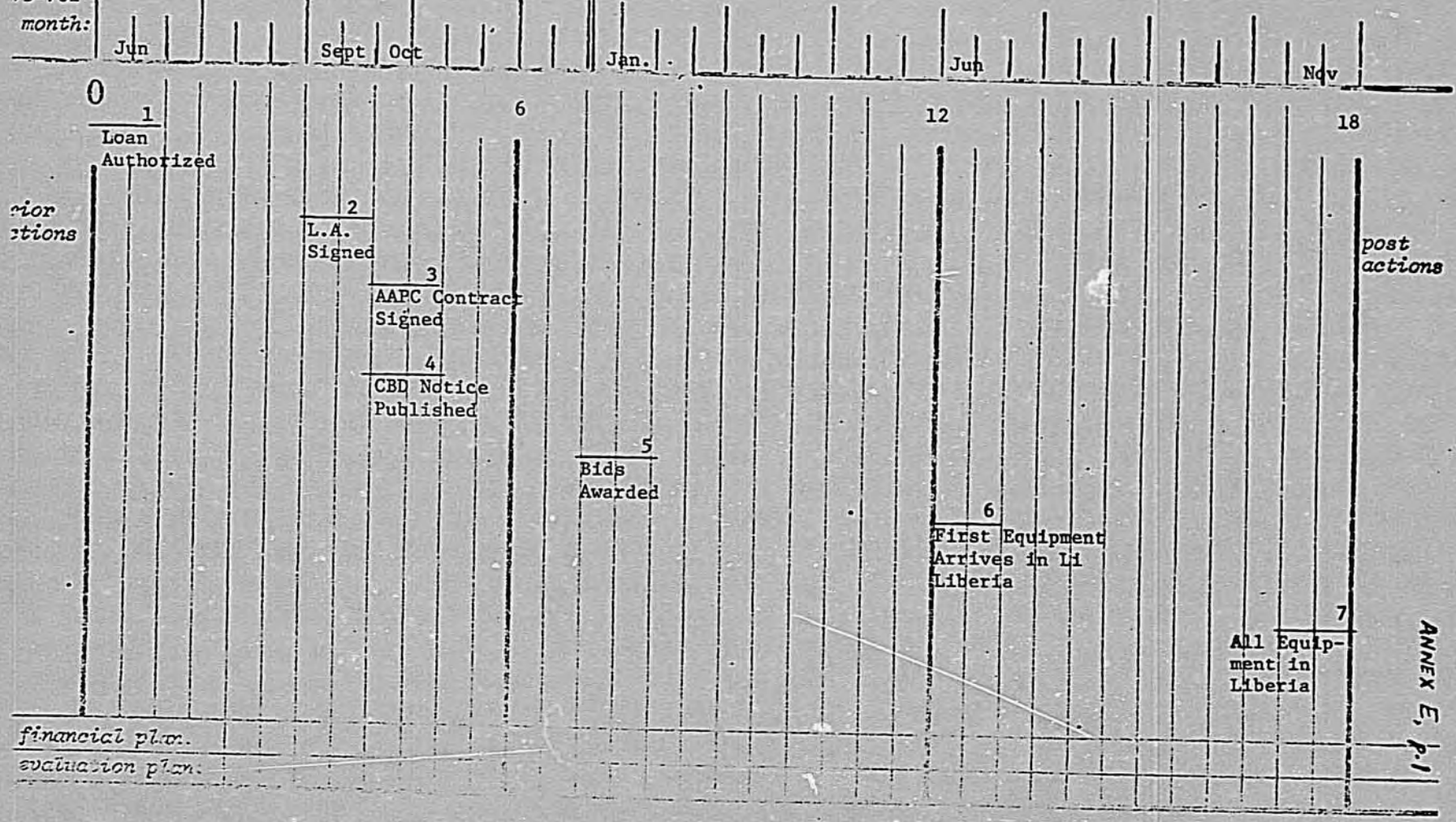
Life of Project:
From FY 75 to FY 78
Total U.S. Funding 4 million
Date Prepared:

Project Title & Number: Liberia Road Maintenance Equipment Loan II

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs: Activities and Types of Resources	Implementation Target (Type and Quantity) Level of Effort/Expenditure for each activity Millions	Contracts, Loan Agreements and Physical Inspections	Assumptions for providing inputs: Affecting input-to-output link
(IBRD/UNDP)			
1. Implement reorganization plan, establish and administer management training program. 2. Set up cost accounting system, record keeping systems, schedules. 3. Procure shop equipment and tools, rehabilitate or construct shops as necessary. 4. Provide public works expert to coordinate FYRMAD inputs.	1-4. 1.875		1. GOL and donors make contributions as planned. 2. Donor activities will be coordinated as required. 3. Suitable trainees can be located, provided with training. 4. Delays due to procurement, unavailability of equipment will not be crtical to project.
(FRG)			
5. Develop Technician's training curriculum and guides, schedule sessions, secure facilities, provide training and equipment.	5. 4.400		
(AID)			
6. Develop equipment requirement list, advertise for bids, select suppliers, procure, ship, and deploy equipment.	6. 8.400		
(GOL)			
7. Provide recurrent budget and MPW staff support for FYRMAD.	7. 1.395		
Total	16.070		

SAMPLE FORM

country:	project no:	project title:	date:	/ x / original	PPT appr
Liberia	PP	FY 75 Road Maintenance Equipment Loan	6/9/75	/ / revision#	



PROJECT PERFORMANCE NETWORK

ANNEX E, p.1

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country:	project no:	project title:	date:	/X / original / / revision #	apprvd:
Liberia	PP	FY 75 Road Maintenance Equipment Loan	6/9/75		

CPI NARRATIVE

1.	Loan Authorized	75 June
2.	Loan Agreement Signed	Sept.
3.	AAPC Contract signed	Oct.
4.	CBD Advertisement for Bids	Oct.
5.	Bids Awarded	76 Jan.
6.	First Equipment Shipment. arrives in Liberia	June
7.	All Equipment in Liberia	Nov.

PROJECTED EVALUATION PLAN

AID will conduct a project evaluation in mid 1976. The evaluation team will be made up of three experienced AID personnel (probably an engineer, an evaluation officer, and a project officer), at least one MPW operations or planning officer (both preferably) and the team will consult closely with SAUTI consultants, the FYRMAD coordinator and the FRG training program manager.

Final team composition and evaluation timing will depend upon personnel availabilities but will not vary greatly from that noted above.

The Evaluation Team will review and report on at least the following:

1. Overall effectiveness of the MPW's organization and management.

2. Effectiveness of MPW's training programs. Specifically:

   a) Have or are sufficient numbers of trained personnel in appropriate categories being trained?

   b) Are they located (to be located) where the need is?

   c) Has the MPW made suitable arrangements for personnel retention and staff development including, if appropriate, steps to provide salaries and benefits comparable with the private sector to assure adequate numbers of trained personnel will be available over the long run?

   d) Is MPW's senior staff supportive of and understand the MPW's training programs and future training needs?

3. Road Maintenance.

   a) Is the MPW meeting its targets for quality and quantity of road maintenance work?

   b) Is it undertaking this work in a cost effective manner?

4. Equipment use and its maintenance.

   a) Is the AID financed equipment being effectively utilized. (Team should report on locations and usage rates of AID financed equipment).

   b) Is the AID financed equipment being properly and periodically serviced and overhauled?

5. Equipment Rehabilitation

   a) Team will report on the MPW's equipment rehabilitation program's progress (financed under AID Loan 669-H-020).

The items covered above are not meant to be a definitive listing of what should be evaluated but do reflect the priorities of the project. Since USAID and REDSO/WA will be in continual contact with the FYRMAD coordinator and SAUTI and thus will be able to keep close tabs on the projects problem/progress, we will request that REDSO/WA and USAID/L work out a more detailed evaluation plan to be approved by AID/W and to reflect the work and the requirements of the Management Information System tests to which this project will be subjected.

The Evaluation Team will submit its report to REDSO/WA and to USAID/L for review prior to release of the final copy.

A final, end of project, evaluation covering essentially the same subjects noted above may be required if substantial issues/problems are surfaced from the proposed evaluation. In addition, all issues/problems that are surfaced will be subject to a realistic review and resolution process in which USAID/L and REDSO/WA will represent AID's immediate interests.

Participation of AID and Other Donors in GOL's Road Programs

AID's involvement in the GOL's road program started in 1962. AID's inputs were primarily part of an effort to improve the MPW's capacity to plan, administer and develop the transportation infrastructure, and to improve its maintenance capacity. From 1962 through 1967 AID provided approximately $3.9 million in grant assistance and $620,000 under project support loans for advisory services, equipment, spare parts, and other commodities for force account road construction and maintenance. As Liberia's public road network expanded, the GOL, AID and other donors became increasingly concerned about the need to provide adequate maintenance for the expanding highway network.

For its part, AID, beginning in 1968 shifted its emphasis from providing advisory services to MPW to providing operational OPEX personnel in key positions to help improve MPW's overall maintenance efforts. Between 1968 and 1972, AID provided approximately $1.1 million in loan and grant funds to support this activity.

AID, during this period, began to help the MPW shift more of its resources to road maintenance and to down play force account construction. This was a reasoned response to the fact that the rapidly expanding Liberian road network required an expanded MPW maintenance capability.

AID helped to lessen the road construction burden on the MPW by providing two loans for 155 miles of rural access road construction ($975,000 in 1968 and $3.4 million in 1972) undertaken by private local contractors. This freed MPW resources for maintenance.

In 1973 AID lent the GOL $4.4 million for the purchase of road maintenance equipment, spares and related services. This was AID's financing contribution to the first phase of the GOL's Five-Year Highway Maintenance and Development Program (1973-1977) (FYRMAD).

In total, since 1962 AID has provided approximately $14.4 million in loan and grant assistance to the MPW and its predecessor agencies for equipment, road construction and technical assistance services. The proposed $4.0 million loan would bring AID's assistance to $18.4 million. AID also has plans to consider a FY 1976 loan for rural access road construction. This loan is expected to be in the $8 million range.

During this period the IBRD lent the GOL about $10.0 million for road construction and upgrading of its road maintenance capabilities. (The IBRD is now considering a $27 million loan to support construction of roads under the FYRMAD).

The Federal Republic of Germany also provided about $10 million during the same time frame. Its most recent contribution was the 1973 grant in excess of $1,000,000 for training highway maintenance equipment operators and maintenance management personnel. (Now being increased to about $4.4 million).

The AFDB is considering providing some $8.5 million in loans for primary road construction under the FYRMAD.

These loans and grants summarize the major ongoing and planning activities of foreign donors in Liberia's road transport sector up to now. Specific references elsewhere in this paper will show how the GOL and the donors, including AID are tying in their recent and proposed contributions to Liberia's road transport sector into the FYRMAD's objectives. The first donor contributions to the program were made in 1973. The Maintenance Program's financing is noted in detail in the Financial Analysis section of this paper. The proposed 1975 GOL and donor contributions to the maintenance program are noted in the same section and comparisons are made with the program proposed in 1973.

The origins of the FYRMAD and its maintenance component stem first, perhaps, from the maturing of the MPW and its consequent awareness that it would have to balance construction with maintenance in order to keep its expanding road network from decaying to ruin.

By 1970 the GOL fully recognized that the rapid growth and upgrading of the country's highway network was outstripping its capacity to provide adequate maintenance. It felt however that new roads were also needed to open remote areas and encourage development.

In 1970, the UNDP agreed to a GOL request to finance a detailed study covering the physical and administrative needs of an effective highway maintenance effort. The IBRD was selected to be the executing agency for the work and in August 1970, a contract was signed with Sauti Overseas Anstalt for execution of the study.

Following the completion of the Sauti Study in August 1972, the GOL, with the assistance of the IBRD, convened in October, the first Multi-Donor Conference in Liberia. At the conference the GOL presented its Five-Year Highway Maintenance Program (1973-1978), the maintenance portion of which was based primarily on the recommendations contained in the Sauti Study. Other reports and studies which detailed needs for primary and secondary road studies and construction were also considered at the conference. A total of ten countries and international organizations, including the U.S., Germany, Israel, Italy, Rumania, Sweden, the U.K., the AFDB, IBRD, and the UNDP sent delegations. Representatives at the conference, including the AID representatives, expressed interest in financing portions of the five-year program, then estimated to cost $39.0 million.

By mid 1973 AID, the IBRD and the FRG had agreed to finance the most pressing needs of the FYRMAD (see Annex C for details) and the program itself got off to a start later that year.

The concept of the FYRMAD has not been substantially revised since 1973. Nevertheless, by mid 1974 donors and the GOL began to recognize that the committed and proposed financing would be insufficient to cover all the plan's objectives.

Recognizing this need, AID, the IBRD, the FRG and the GOL have all indicated their willingness to increase their financial contributions to the program. In addition the AFDB plans two loans of about $8.5 million total to support the program.

AID's proposed loan, which GOL officials recognize is a tentative commitment dependent on the usual USG project authorization procedures is just one of the proposed contributions to the continuation of the FYRMAD. Part II of this paper describes this loan and its integration into the second financing tranche of the FYRMAD in detail.

The GOL is also very cognizant of AID's own basic development lending objectives and is not seeking funding from AID for any road construction projects which could be considered as primary, city, or truck load construction projects. The project elements in FYRMAD that fall in this category are mainly being funded by the IBRD and the AFDB. The total financing requirements of FYRMAD, including roads for which no funding is yet firm, could amount to $90 million or more. The maintenance component of FYRMAD will be in excess of $18 million, not including the GOL's recurrent budget expenditures.