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PD-AAB-650-81

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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

MALI - HIGHWAY DEVELOPMENT

625-H-007

AID-ILC/1-1069

(UNCLASSIFIED)

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

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AID-DLC/P-1069

February 8, 1973

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Mali - Highway Development

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed \$8,800,000 to the Government of Mali to assist in financing foreign exchange and local currency costs of goods and services for the reconstruction of the Bamako-Bougouni Road and the foreign exchange cost of U.S. road maintenance equipment.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at a meeting on Wednesday, February 14, 1973.

Rachel R. Agee
Secretary
Development Loan Committee

Attachments:

Summary and Recommendations
Project Analysis
ANNEXES A-I

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MALI HIGHWAY DEVELOPMENT

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SUMMARY OF RECOMMENDATIONS

1. Borrower: Government of Mali (GOM)
2. Loan Amount: \$8.8 million
3. Terms:
 - a. Maturity: Forty (40) years including a 10-year grace period.
 - b. Interest: Two percent per annum during the grace period, and three percent per annum thereafter.
 - c. Repayment: Interest and principal payable in U.S. dollars.
4. Total Cost of the Project:

A.I.D.	\$ 8.8 million
IDA	8.0 million
Government of Mali	<u>4.2 million</u>
Total	\$21.0 million
5. Project Description: The proposed Mali Highway Development Project consists of reconstruction and engineering supervision of two major trunk roads in Mali, engineering design study of a third trunk route, technical assistance to the GOM highway maintenance program and supply of road maintenance equipment to the GOM. The project is proposed as a multidonor activity with financing to be provided by A.I.D., the International Development Association (IDA) of the World Bank Group and the Government of Mali. The roads to be reconstructed are the 155 km Bamako-Bougouni Road and the 233 km Faladie-Segou Road. The engineering design study will be undertaken on the 120 km Bamako-Kolokani Road.
6. Purpose of the Loan: The proposed loan together with a proposed IDA Credit will assist the GOM finance the foreign exchange and local currency costs required to carry out the highway development program described in paragraph 5 above. The A.I.D. loan will be utilized for the purpose of financing the foreign exchange and local currency costs of reconstruction of the Bamako-Bougouni Road and the foreign exchange cost of U.S. road maintenance equipment. The IDA Credit and the Government of Mali contribution will finance the foreign and local currency costs of reconstruction of the Faladie-Segou Road, engineering supervision of the Bamako-Bougouni and Faladie-Segou Roads, engineering design of the Bamako-Kolokani Road, and technical assistance for the GOM highway maintenance program.

7. Background: During the course of an IBRD appraisal of a railway rehabilitation project in Mali 1966, the need was noted for a broad survey of Mali's transportation system and requirements. In 1967, the United Nations Development Programme (UNDP) agreed to finance such a survey with the World Bank (IBRD or the Bank) as the executing Agency. The survey was completed in 1969 by Tractonel, a Belgian consultant, and recommended a program of improved highway maintenance and rehabilitation of Mali's main trunk roads and improved agricultural feeder roads. Acting upon the recommendations of the survey report, the World Bank authorized its first highway maintenance program in Mali in 1970. This program included the supply of a portion of Mali's total highway equipment requirements, and the feasibility study and detailed engineering design of the Bamako-Bougouni and Faladie-Segou Roads. The feasibility studies were completed in February 1972 and served as the basis for the GOM request in September 1972 for A.I.D. assistance in financing rehabilitation of the Bamako-Bougouni Road.
8. Export-Import Bank Clearance: Export-Import Clearance for this project was obtained on November 20, 1972.
9. Country Team View: The Embassy Bamako, ADO Dakar and REDSO office in Abidjan have all endorsed this project.
10. Statutory Criteria: Satisfied; see Annex A.
11. Recommendation: That A.I.D. authorize a loan in the amount of \$8.8 million to finance the foreign exchange and local currency costs of reconstruction of the Bamako-Bougouni Road and the foreign exchange cost of U.S. road maintenance equipment.

CAPITAL ASSISTANCE COMMITTEE

Project Design Officer:	S.P. Walsh, AFR/DS
Desk Officer:	A. Vestrich, AFR/CWR
Engineer:	S. Lubin, SER/ENG
Lawyer:	M. Kitay, GC/AFR

February 8, 1973

I. INTRODUCTION

A. Summary Project Description

The proposed Mali Highway Development project is a multidonor effort to assist the GOM improve a major element of its basic road transport infrastructure and improve the GOM capability to effectively maintain and utilize this system. Specifically, the proposed project consists of reconstruction of two major trunk roads emanating from Bamako: engineering supervision during construction, continuation of an ongoing IDA financed highway maintenance and feeder road improvement program, including technical assistance and supply of highway maintenance equipment and detailed engineering required for improvement and/or reconstruction of the 120 km road from Bamako to Kolokani. The AID portion of the project will consist of reconstruction of the 155 km road running southeast from the capital of Bamako to the town of Bougouni and the supply of U.S. road maintenance equipment. All related road maintenance technical assistance will be provided by the International Labor Organization (ILO) and the French engineering consulting firm of BCEOM under contract to the GOM and financed by the IDA credit.

The roads to be reconstructed under this project represent Mali's two major land transport routes. The roads radiate from Bamako to the regional centers of Bougouni and Segou with the first 7 km from Bamako to Faladie being common to both roads. The Faladie-Bougouni section serves the cultivated region to the south and forms part of the important international link with the Ivory Coast; the Faladie-Segou section links the capital with the cotton producing areas around Segou and comprises part of the only all-weather link with Mopti, the gateway to the Niger River Basin. The Bougouni section will also serve the new international airport under construction at Senou, 10 km south of Bamako.

B. Background

In 1966 the IDA entered into a major program to assist the GOM rehabilitate and modernize its railway system. One of the indirect results of this program was the recommendation for a countrywide survey of Mali's land transport system. The survey was undertaken with the IBRD as executing agency for the UNDP, and completed in 1969. The survey served as the basis for the first IDA credit in 1970 for improvement of approximately 1,450 km of agricultural feeder roads and preinvestment studies for rehabilitation of Mali's two main trunk roads, the Bamako-Segou and the Bamako-Bougouni roads. The feasibility studies of these two roads were undertaken by the Canadian consulting firm of Kez International and completed in February 1972. Based upon the favorable results of these studies, the GOM in late 1972 requested A.I.D. and IDA assistance in financing rehabilitation of the Bamako-Segou and Bamako-Bougouni roads and continued assistance in improving its highway maintenance program.

C. A.I.D. Development Objectives in Mali

As one of the UNDP designated "least developed" nations, A.I.D.'s strategy in Mali is to provide the most concessional assistance possible to support economic development in the country with special emphasis on the rural sector, education and selected infrastructure. In view of Mali's basic problem of feeding its 5 plus million population, particular emphasis is directed at increasing food production and development of its livestock industry for domestic consumption and export earnings. U.S.G. policy also places emphasis on Mali's regional economic cooperation within West Africa and of a continuation of Mali's improved economic, commercial and political relations with the free world.

Prior A.I.D. assistance to Mali has been directed at the above objectives and includes assistance in establishing a central veterinary laboratory in Bamako designed to produce vaccines necessary to control the outbreak of animal diseases in Mali's livestock herd and assistance in the construction and equipping of a higher teacher institute designed to help Mali meet its need for primary and secondary school teachers.

D. Relation of Project to A.I.D. Objectives

The proposed project falls within the overall A.I.D. strategy of assisting the GOM eliminate transportation as one of the constraints on development of the rural sector and will have the effect of reducing the cost of transportation of livestock and agricultural commodities for both domestic and external consumption and consequently improve Mali's ability to compete more effectively for the West African livestock, cotton and groundnut markets.

E. Borrower

The Borrower will be the Government of Mali. The executing agency will be the Department of Public Works (DPW) of the Ministry of Industrial Development and Public Works. The Ministry of Industrial Development and Public Works and the Ministry of Transport are responsible for the planning of infrastructure investments. The latter is also in charge of major decisions on company policies of the state run enterprises, in addition to general supervisory functions. Transport regulation rests mainly with the Direction Nationale des Transports (DNT), which falls under the Ministry of Transport. The DNT itself is divided into the Office Nationale des Transports Routiers, which assumes functions mostly related to road transport, and divisions assigned to transport planning and intermodal transport coordination including sector regulations.

II. ECONOMIC ANALYSIS

A. Overview of Mali Economy and Development Objectives

Mali is a landlocked country of almost 1.2 million km² bordered by seven other African countries and is also one of the most rural and agriculturally oriented countries in the world. The northern part of

the country lies within the Sahara Desert and is sparsely populated. Most of the people live in the country's southern half, 55% of them in the Savanna regions through which flow the Niger River and its tributary, the Bani. Economically, the Savanna regions are the most active. Income within these regions is derived from the cultivation of food crops and from animal husbandry. Close to 90 percent of Mali's five million plus people live in some 9,500 rural villages and the occupation of almost all of these is in agriculture, livestock production and fishing. The exceptions are those rural-based people engaged in trade and in handicrafts. Most of the balance of the population work in servicing these primary industries by providing transport, processing, commercial and governmental services, etc., to the rural based population. While the primary sectors of the economy account for employment of close to 90 percent of the population, they are estimated to produce less than one-half of the gross domestic product (G.D.P.). The secondary sector of the economy (energy, manufacturing, handicrafts, construction and public works) accounts for about 15 percent of G.D.P. The balance of economic activity, in the tertiary sector, involving transport and communications, commerce, and the provision of governmental and other services accounts for about 40 percent of G.D.P. The industrial sector which contributes about 2% to the G.D.P. consists of a few manufacturing plants in Bamako. The G.D.P. per capita of US\$ 56 is one of the lowest in the world. Principal exports, which go mainly to neighboring countries, are rice, meat, fish, groundnuts, and cotton; cotton and groundnuts make up one-third of the recorded exports, and cattle accounts for one-half. Mali is now in the process of attempting to reorganize its economy which reached its lowest point in 1968 and contributed to a change in government and a devaluation of its currency. The present military government outlined its economic goals in the 1970-72 Economic and Financial Rehabilitation Plan as the achievement of equilibrium in government finances and foreign trade. The Plan's strategy is to concentrate on directly productive and quick yielding investments in agriculture and industry, and on improving efficiency in existing industry, state enterprises and transport infrastructure. As indicated by the goals of the Rehabilitation Plan, Mali's most pressing problems are improvement in its balance of payments and balancing its government finances.

B. Transport Sector

1. General

As part of its current three-year development plan, the GOM has emphasized maintenance and rehabilitation of its road transport system, improvement of feeder roads in support of ongoing agricultural projects and upgrading of primary roads as necessary inputs to reduce transport costs of its agricultural commodities for both domestic and external consumption.

The objectives of Mali's transport policies are the creation, preservation and expansion of transport capacities capable of handling efficiently the country's internal and external trade. While such objectives apply to any country, their realization in the Mali context implies overcoming specific difficulties, the most important of which are the geographical handicaps under which transport operates.

The unfavorable geographical features of Mali are its landlocked position and the great transport distances. There are, however, no major topographical obstacles to transport within the country. Mali is surrounded by a total of seven countries. Only two of them, Senegal and the Ivory Coast, provide connections to the Atlantic with sufficient capacity to handle Mali's overseas import and export trade, and then only if both are used. Neither of the two routes to Dakar or Abidjan taken alone is sufficient to fully satisfy Mali's overseas transport needs. Other external outlets to the ocean are either non-existent or insignificant in capacity and prohibitively costly.

In terms of its existing infrastructure, Mali has an extensive transport system with an overall adequate geographical layout. The physical infrastructure consists of a 640 km railway (Regie du Chemin de Fer du Mali --- RCFM) linking Bamako with the port of Dakar (Senegal via the Senegalese rail system); about 13,000 km of roads which some 3,200 km provide all-weather service; about 1,650 km of inland waterways which are navigable for about seven months each year; and an international airport at Bamako, as well as about a dozen airfields catering to domestic commercial needs.

Several investments are underway or planned with a view to improving the transport infrastructure. The railway is being modernized with the assistance of IDA (Credit 95-MLI) and new investment in track renewal and rolling stock are planned which will further increase rail capacity and improve the RCFM's cost performance. The existing IDA highway credit is also assisting the GOM in the program to improve agricultural feeder roads. The European Development Fund (FED) is financing the construction of a new international airport at Senou, just south of Bamako, to replace the existing facility which is severely limited in capacity. A recent Bank Group review of water transport requirements has identified the need for additional equipment to improve river navigation services. The GOM is also negotiating with the Export-Import Bank for financing of a proposed Malian free port in Abidjan which should result in increased demand for transport service along the Bamako-Abidjan road axis.

Most domestic Malian trade is carried by either road or rail. Road transport accounts for 75% of all passenger traffic; the railway carries about 15%; water transport, 8%; and air transport, the remaining 2%. Domestic freight traffic is handled 45% by road, 40% by rail and 15% by water transport. For external transport, the railway is the more

important mode. Of the total import-export traffic, estimates at about 400,000 tons per year, 55 to 60% is shipped via the railway to and from Dakar. About 20 to 50% is transported by road to and from the Ivory Coast, about half of it being overseas trade directed through the port of Abidjan. Remaining import-export traffic consists of trade with Upper Volta and Ghana.

2. Characteristics and Growth of Road Transport

On the basis of statistics on fuel consumption (Annex B), vehicle registration (Annex C), and semi-annual traffic counts by the National Directorate of Public Works (DPW), road traffic has been growing at an average annual rate of 5-6% since 1968. Traffic volumes are light, except on the primary roads serving Bamako. More than 75% of the traffic is concentrated on paved roads which carry an average of about 250 vehicles per day (vpd); traffic on all-weather gravel roads averages about 30 vpd, accounting for less than 15% of total volume. Secondary roads and tracks -- which represent more than 75% of the network -- carry about 10% of overall traffic, at an average of less than 20 vpd. Trucks account for a high 45% to total traffic, an indication of the importance of freight transport.

In 1971, the vehicle fleet numbered about 16,000, of which more than 50% were passenger cars, 25% light pickup trucks and vans, and the remainder heavy trucks and buses. The fleet has expanded steadily since 1965 at an average annual rate of about 7%. The capacity of the trucking fleet, however, appears inadequate, as evidenced by the substantial delays which occur in the evacuation of agricultural products. Even if there is a sufficient number of vehicles, output is low, with an average annual kilometrage of only 25,000 km per truck. The fleet suffers from both overloading and lack of maintenance. The main reason for the poor condition of the fleet would seem to be the low prices paid to the truckers. It is expected that the proposed IDA Credit will contain a requirement for a review of Mali's road transport pricing in an effort to correct this situation.

3. Financing Road Transport Infrastructure

Current annual expenditures for administration and maintenance are covered mainly by a Road Fund, and to a lesser extent by contributions from the Government's general budget. The Road Fund is also the most important internal source of finance for capital expenditures such as highway construction and equipment purchases. In 1970 and 1971, internal financing for highways averaged about MF 1.35 billion (US\$2.4 million) annually, about 60% of which was for current expenditures (Annex D).

Over the period 1966-68, lack of funds for maintenance led to a curtailment of operations and to the virtual breakdown of the equipment fleet. Highway maintenance expenditures over the period 1966/67 to 1969 decreased in real value from about US\$1.5 million to about US\$1 million equivalent. As required under the 1970 IDA Credit Agreement for the highway maintenance project, the Government undertook to supply the Road Fund with sufficient resources to cover the local costs of the program for highway maintenance and feeder road betterment, as well as the current requirements for maintenance. The Government also agreed to gradually increase the provision for equipment renewal so that, starting in 1975, annual current requirements would be covered; accordingly, since 1971, allocations have been increased as specified in the IDA/GOM agreed financing plan covering the period 1971-74. The present project provides for equipment renewals in 1973 and 1974. During the IDA/GOM negotiations for the proposed IDA credit, the financing plan will be updated to include requirements through 1976, and a new plan will be agreed upon.

Road users contribute to Government revenues through various taxes, import duties and fees, which were estimated by the IBRD in 1971 at about MF 4 billion (US\$8 million). About 65% of taxes and duties on gasoline and diesel oil are earmarked for the Road Fund, and are channeled into special account held for that purpose with the Mali Development Bank. Road Fund revenues have averaged about US\$2.4 million annually over the past two years; they are the only DPW revenues not affected by fluctuations in budget allocations, and are therefore essential for the continuity of DPW operations.

Over the last six years, Mali has received an average of about US\$3-5 million per annum in external financial assistance for highways. This amount represented about 70-80% of capital expenditures in the mode, and was directed mainly to upgrading of the primary road network. FED has been the main source of this external financing, with some contributions also from Eastern European countries, France, and the Arab Republic of Egypt.

C. Economic Evaluation of Project

The following analysis has been extracted from the IBRD project appraisal report on the Mali Highway Development Program dated September 15, 1972.

1. General

The proposed project is designed as a contribution to Mali's objective of improving the efficiency of the transport system. It also reflects the Government's policy to attach first

priority to the preservation and upgrading of existing facilities when planning transport investments. Thus conceived, the investments are economically sound. Their overall economic return is expected to be about 30%. The immediate benefits to be derived from the project are savings in transport costs, most of them being vehicle operating costs, and these are the benefits used in the economic evaluation. No benefits from increased production, such as in agriculture, were quantified to support the project. In the case of the rehabilitation works, such benefits will be insignificant, as the roads already exist; in the case of the highway maintenance program, the expected increases in production in the areas served are assumed to relate exclusively to various agricultural development schemes underway.

2. Rehabilitation of Paved Roads

The highways proposed for rehabilitation are two of the most important links in the primary road network of Mali. The Bamako-Bougouni Road, the main route south of the capital, serves main international links. The route from Bamako to Segou forms part of the country's main transport axis which extends from the Senegalese border to the Niger River Basin. The proposed rehabilitation and strengthening works will lower future transport costs for a significant portion of Malian trade.

Traffic levels on the roads vary from 2,700 vehicles per day (VPD) at the outskirts of Bamako to about 200 vpd. The Bamako-Faladie section which lies within the urban zone of the capital, carries an average of about 2,000 vpd. Traffic on the Faladie-Bougouni section averages about 250 vpd, and on Faladie-Segou about 400 vpd. The traffic is composed largely of passenger cars and light commercial vehicles, except on the Faladie-Bougouni section where the proportion of heavy trucks transporting export and import freight is greater. International traffic on this section accounts for approximately 30% of total volume. On the basis of origin-destination data collected by the consultants, traffic on the project roads is expected to grow at an average of about 6% per annum, with local and regional traffic increasing at about 6-8%, and international traffic at about 3-4%.

The proposed works form the first stage of a four-stage program of rehabilitation and strengthening scheduled over a period of about 15 years. The economic analysis was carried out for the entire program, of which works under the project form the most important part. The remaining works consists only of further pavement strengthening comparable in nature and importance to periodic maintenance. The proposed program was found to be the optimum economic solution when compared with the other possible alternatives of (1) increasing road maintenance to such an extent as to avoid further heavy deterioration, thus permitting the roads to continue to function as main transport

routes, (ii) rehabilitating and strengthening all sections of the roads immediately, or (iii) continuing the current level of maintenance which would imply further deterioration and complete reconstruction of the roads when they fail in five to ten years.

The economic returns on the proposed investments were computed by comparing them with alternative (i). In addition the pavement widening was analyzed separately on the basis of marginal benefits and costs. The marginal cost, however, of relocating a 6 km section of the existing road between Faladie and Senou, amounting to about US\$200,000, were excluded from the economic analysis as the proposed relocation is justified by safety requirements of Bamako's new international airport rather than transport cost savings. On the basis of savings in vehicle operating costs of up to 16% and on the specific evaluation procedures outlined above, the proposed rehabilitation and strengthening program is expected to yield economic returns on the Bamako-Senou, Senou-Bougouni and Faladie-Segou sections of 24%, 37% and 32%, respectively; Widening of the pavements yields a return of about 31%.

The above estimates of the economic returns rely on a number of inputs which have, on the whole, been quantified with a satisfactory degree of certainty. One factor less certain, however, is the level of future international traffic, particularly in view of the planned investment to increase the capacity of the railway, and the possible revision of transport pricing. A test of this variable indicates, however, that the economic viability of the proposed road investment is not threatened by the possible loss of such traffic. For instance, even if all overseas trade presently routed through Abidjan were diverted to the railway, the economic return on the Senou-Bougouni section, that section most affected by such diversion would remain about 28%; if such traffic were merely to remain stagnant, which is a more realistic assumption, the economic return would be about 33%. In view of the results of these and other tests listed in Table 11^{1/}, the rehabilitation and strengthening program is considered to be economically sound and of high priority.

3. Highway Maintenance and Feeder Road Betterment Program

The ongoing highway maintenance and feeder road betterment program is an essential element in the development of reliable and efficient highway maintenance in Mali. The additional capital expenditures for supplementary ILO and BCEOM technical assistance and training required to bring the program to a successful completion, as well as the total program, are justified. A reevaluation of the program, whose quantifiable benefits consist of savings in transport costs, indicates that the economic return is in the magnitude of about 17%. A sensitivity test based on a more conservative assumption of project benefits produces a yield of about 12%.

^{1/} See Annex F.

4. Highway Maintenance Equipment

The proposed second tranche of highway maintenance equipment would essentially complete the reconstitution of DPW's equipment fleet. The main objective of the ongoing highway maintenance program is to build up DPW's road maintenance capacity to an adequate level considering the nature and volume of traffic; and the characteristics and condition of the road network.

The detailed equipment analysis conducted at the time of appraisal of the 1970 IDA Credit concluded that, by 1975, DPW should be carrying out a volume of maintenance work requiring an equipment fleet with a renewal value of about MF 2.85 billion (US\$5.7 million equivalent at 1972 prices). The proposed A.I.D.-financed equipment purchases, together with the additional technical assistance to be provided under IDA financing, would enable the DPW to attain this objective.

If the proposed equipment is not provided, DPW will not have enough capacity to carry out the optimum program defined above, and over the years, some roads will progressively receive operating costs. The economic evaluation of the proposed equipment has been based on a comparison of the incremental outlays in equipment and recurrent expenditures with corresponding savings in vehicle operating costs. These savings for various types of roads and levels of maintenance have been estimated conservatively at about 4% of total vehicle operating costs. The economic return over the six-year average economic life of the equipment, assuming traffic growth of 5% per annum, is above 20%, indicating that this element of the project is well justified.

5. Cost Analysis

Based upon the feasibility study completed in February 1972 and substantially completed final engineering design the cost estimate for stage one of the four stage Mali Highway Development Project is \$21 million. This figure includes both capital costs for reconstruction of the two roads, procurement of highway maintenance equipment, technical assistance for the GOM road maintenance program, and annual maintenance cost of the roads and equipment. Other costs included in the benefit-cost analysis include the additional capital investments and maintenance costs required in stages 2 through 4 of the proposed highway development program.

6. Benefit Analysis

The analysis of project benefits was carried out by the consultant and subsequently revised by the IBRD project appraisal team. Since construction to be carried out under this project will rehabilitate two existing roads, the basic approach utilized in determining expected benefits was to compare the estimated vehicle operating cost savings expected to result from this investment with

potential cost savings expected to result from an alternative investment in increased road maintenance designed to avoid further heavy deterioration. The net difference in vehicle operating costs represent the direct project benefits. The analysis also considered the additional investment in further pavement improvement maintenance required to carry out the total four-stage rehabilitation and strengthening program scheduled over a 15-year period.

Benefits to be derived from the IDA-financed road maintenance and feeder road program also consisted of projected transport savings costs. The cost-benefit analysis of the highway equipment component of the project consisted of an analysis of incremental outlays for equipment and recurrent expenditures with corresponding savings in vehicle operating costs resulting from the better maintained road network.

7. Internal Rate of Return

As indicated by the IBRD Project Appraisal report, the IRR for the project as a whole, based upon preliminary cost estimates, is about 30%. The IRR for discrete project components are:

	<u>IRR</u>
a. Bamako-Senou Road	24%
b. Senou-Bougouni Road	37%
c. Faladie-Segou Road	32%
d. Highway Maintenance Program	17%
e. Highway Maintenance Equipment	20%

A sensitivity analysis undertaken by the consultant for variation in such factors as base year traffic data, traffic growth rates, investment costs, reduction in vehicle operating and road maintenance costs indicate that under the most conservative assumptions for any one of these factors, the IRR, for any given sections of the two roads, would not fall below 22%. The methodology used by the consultant carrying out the feasibility study were both comprehensive and consistent with standard economic evaluation techniques utilized in analysis of existing transport infrastructure and do not distort the potential benefits expected to result from the project. As the result of the approximately 20% higher capital cost associated with the use of a U.S. firm for reconstruction of the Bamako-Bougouni road, the IRR for the road will be less than estimated by the Bank and the consultant. Given the Bank and consultant estimates of 24% and 37% respectively for the Bamako-Senou and Senou-Bougouni segments, 20% increase in cost is not expected to adversely affect the final economic viability of the road. As indicated by the IBRD sensitivity analysis, a 15% increase in investment costs is estimated to reduce the IRR for the Bamako-Faladie-Senou and the Senou-Bougouni sections of the road to 22% and 29% respectively. An additional 5% increase in capital costs should result in final IRR's of approximately 21% and 26% respectively.

III. TECHNICAL ANALYSIS

A. Project Description

The part of the project to be financed with A.I.D. loan funds consists of the reconstruction of the trunk road from Bamako to the regional center of Bougouni, approximately 155 km (97 miles) southeast of Bamako. The road from Bougouni proceeds eastward to Sikasso and then south to Zegoua on the Ivory Coast border, where it joins the main north-south road to Abidjan.

The first 7 km (4.4 miles) from Bamako to Faladie carries traffic to the new international airport at Senou, 10 km (6.2 miles) south of Bamako, and is also common to the Bamako-Segou road to be constructed under a parallel financing agreement with the IBRD. The IBRD project will begin at Faladie. The A.I.D. financed project will also finance the construction of the junction point at Faladie.

The reconstruction work includes rehabilitation of the existing road structure (regravelling of shoulders, reshaping of ditches, repair and reconstruction of structures); widening of the pavement to 7 meters (22 ft) on the Bamako-Faladie-Senou section and to 6 meters (19 ft) on the balance of the road; base and pavement strengthening where required; widening of several one lane bridges; and some horizontal and vertical realignment where required for safety reasons.

B. The Existing Road

The existing road was constructed in the early fifties and with the Bamako-Segou road is the oldest paved link in the country. The original road was a gravel surfaced road on which a light one lane pavement was laid at a later date. Subsequently, some sections were widened sporadically and, at present, the pavement varies between 4 meters and 6 meters. The realignment follows the undulating terrain and includes a number of sharp curves and dangerous hogbacks. Although the road crosses only a few rivers, during the short but intense rainy season the lowlands are flooded. Numerous temporary streams are created necessitating the raising of some road sections above the surrounding terrain.

With increased traffic and heavier loads, the road pavement has been breaking up, requiring intensive maintenance and partial reconstruction. The present condition of the road, resulting in part from inadequate maintenance and in part from its design for lighter traffic, is such that it is unsuitable for present traffic volumes of about 2,000 vehicles per day on the Bamako-Faladie section and about 250 vehicles per day on Bamako-Bougouni section. In many places the base and subbase have failed due to structural inadequacies. Current maintenance, consisting of patching and sealing is of limited value.

C. Design Standards

The road will be designed for speeds of 100 km/h (60 mph). Horizontal curves will have a minimum radius of 500 meters (1550 ft.) and vertical curves a minimum radius of 6,000 meters (18,600 ft.) at the crest. Maximum grade will be 6%. Pavement will be designed for 13 metric ton (28,000 lb.) axle load. The road bed on the Bamako-Senou Airport section will be 11 meters (34 ft.) wide with a 7 meter (22 ft.) pavement and 2 meters (6 ft.) gravel shoulders. On the rest of the highway the road bed will be 9 meters (28 ft.) wide, pavement 6 meters (19 ft.) and gravel shoulders 1.5 meters (4.6 ft.).

The above standards are identical to those used on the Bamako-Segou highway financed under the IBRD parallel credit. These standards are consistent with the standards of the Mali Department of Roads and Bridges in the Department of Public Works.

D. Cost Estimate

The A.I.D. estimate for reconstruction of the Bamako-Bougouni road is based on the consultant's and the IBRD estimates, with an increase of 20% added to the construction contract cost for U.S. bidding. The 20% figure is arrived at by considering the higher mobilization cost for a U.S. contractor and the higher salary costs of the contractor's expatriate supervisory personnel and skilled workers. No additional costs are included for U.S. supervisory engineers since it is anticipated that engineering supervision will be provided by Kez under IDA financing for both the Faladie-Segou and the Bamako-Bougouni sections. The proportion of FX and local costs for construction under A.I.D. financing is estimated at 70% and 30% respectively. A breakdown of the A.I.D. cost estimate is given below:

	<u>*MF (000)</u>	<u>FX (\$)</u>	<u>Local Cost(\$)</u>	<u>Total Cost (\$)</u>
Construction Cost	2,562,000	3,502,689	1,501,153	5,003,842
U.S. Bid (20%)	<u>512,400</u>	<u>700,538</u>	<u>300,230</u>	<u>1,000,768</u>
	3,074,400	4,203,227	1,801,383	6,004,610
Engineering	<u>281,820</u>	<u>440,338</u>	<u>110,085</u>	<u>550,423</u>
	3,356,220	4,643,565	1,911,468	6,555,033
Construction Escalation (2x6%)	<u>402,746</u>	<u>550,622</u>	<u>235,981</u>	<u>786,603</u>
	3,758,966	5,194,187	2,147,449	7,341,636
Engineering Escalation	<u>28,182</u>	<u>44,034</u>	<u>11,008</u>	<u>55,042</u>
	3,787,148	5,238,221	2,158,457	7,396,678

Using the total road cost figure of \$7,396,678 and deducting the engineering supervision cost to be funded by the IBRD, the A.I.D. funding requirement would be approximately \$6,791,000 for the road construction.

E. Construction

Construction work on the project will consist of rehabilitation of shoulders and drainage ditches on portions of the road, partial reconstruction and widening of the base course to the design standards listed in III. C., and reconstruction and widening of the bituminous pavement to the above standards. Base course reconstruction will be either natural gravel or crushed stone. It is planned to request bids on both alternatives and to award on the basis of the lower cost alternative. Depending on the condition

*MF 512 = \$1

MF 0.0019531 = \$

of the existing pavement on various sections, pavement reconstruction will be either by multiple surface treatment or by resealing with a layer of precoated mix. Single lane bridges or bridges narrower than the road standards in III.C. will have to be widened. Some realignment of the roadway will be required to eliminate dangerous sharp curves and several new bridges and culverts will be constructed where existing structures are on the abandoned roadway. Some vertical curves will be regraded to improve visibility and grades reduced where safety considerations dictate.

F. Engineering

Final engineering is being completed by Kez International Ltd., a Canadian consulting firm whose contract is financed by the IBRD. The Kez contract includes preparation of bid documents and prequalification evaluation. Engineering supervision of both the Bamako-Bougouni and the Faladie-Segou roads will be financed under the IBRD credit. Arrangements will be concluded with the IBRD and the Mali Government to provide for reporting responsibility by the supervising engineer to A.I.D. on the Bamako-Bougouni road.

Final engineering of structures (bridges and box culverts) by Kez International is being executed to meet Mali engineering procedures which are modelled on French methods. These do not meet U.S. standards in that they do not provide full design data to the construction contractor. Arrangements have been made with the GOM to instruct Kez to provide the additional engineering details as well as to translate all bid documents from French to English. This work will be financed under the existing Kez contract either from the IBRD credit or by the GOM.

G. Administration

The Directorate of Public Works (DPW) in the Ministry of Industrial Development and Public Works will be responsible for execution of the project. On site engineering supervision will be provided by the consulting engineering firm which was responsible for the detailed engineering design of both the Bamako-Bougouni and the Faladie-Segou sections. Since the firm is not a U.S. or other Geographic Code 941 firm, its services will be financed from proceeds of the IDA credit. A.I.D. will require the firm to provide a separate supervision team for the Bamako-Bougouni section, headed by a Project Engineer. Another similar team will supervise construction of the IDA financed section. It is planned to have both engineering teams responsible to one overall Project Manager who will report to the DPW.

Construction contract bids will be solicited from U.S., other Code 941 and local firms. It is expected that the project size will be sufficiently large to attract U.S. bids.

H. Maintenance

The Mali highway network consists of about 13,000 km (8,125 miles) of roads and tracks of which 3,100 km (1,940 miles) are suitable for all weather traffic. Of these 1,630 km (1,000 miles) are paved roads and the balance all weather gravel roads. The planning of infrastructure investments in the transportation sector is the responsibility of the Ministry of Industrial Development and Public Works.

The maintenance of about 6,000 km of secondary roads and tracks which were formerly the responsibility of regional authorities were turned over to the DPW in 1971 when the highway maintenance system was reorganized as part of the program financed under the IDA Highway Maintenance Project (Credit 197 - MLI).

The reorganized DPW now has full responsibility for the administration, planning and maintenance of 11,300 km (7,000 miles) of roads which make up the primary and secondary road network. The remaining 1,700 km of earth tracks continue to be the responsibility of regional authorities.

The DPW, itself, is divided into a number of departments, each under the direct supervision of the Director General and his deputy. The major departments dealing with roads are: Roads and Bridges; New Works; and Equipment. Planning and supervision of maintenance, as well as all construction work in its 13 geographic subdivisions is carried out by the Department of Roads and Bridges. The New Work Department carries out the newly established feeder road betterment program, specifically for roads serving cotton and groundnut producing areas. The Equipment Department operates all workshops and manages, maintains, and repairs the DPW equipment fleet.

According to the IBRD, the highway maintenance and feeder road betterment program under the Bank's First Highway Project is now proceeding well, although progress in the early stages was somewhat slower than envisaged when the project was appraised; the technical assistance presently being provided to DPW by IDA will be extended in order to assure that the objectives of the program are realized. The required scope of this supplementary technical assistance was reviewed by the IBRD, the DPW and with the heads of the ILO and BCEOM teams, and it is now estimated that the technical assistance should be retained for about an additional year and a half, that is, until early 1975. Funds will therefore be provided under the proposed IDA credit for the appropriate extension of consultant's services: the 10-man ILO team will be extended by about 100 man-months, and the

7-man BCEOM team by about 70 man-months.

Under the ongoing IDA project, ILO has also arranged to send several promising technicians to its vocational training center at Turin, Italy, to attend three-month sessions in workshop management. The Bank feel this program has produced good results and it will be expanded under the present project. Accordingly, ILO will organize training in Turin for two groups of ten DPW technicians.

As a result of the IDA Highway Maintenance Project, the DPW is now soundly organized for its task of construction management and highway maintenance. Its staff includes about 20 trained Malian engineers in supervisory positions in the central departments and field divisions. Some 60 technicians supplement this staff, of whom half have some formal training. The three DPW departments mentioned employ a labor force of 1,650 of whom about 250 are recent recruits for the feeder road program. Although the labor force is largely illiterate and has a low level of training, it has some degree of practical knowledge gained through work experience. This has proved to be a sound basis for further training under the IDA program.

A reserve of \$2 million is being provided under the A.I.D. loan for the procurement of additional highway maintenance equipment required by the DPW. Disbursements against this reserve fund will be authorized by A.I.D. only after a current requirements analysis has been provided by the DPW, reviewed by the IBRD and approved by A.I.D.

The \$2 million estimate is based on a tentative list of equipment prepared by the IBRD as being required to complement the initial purchases made under the IDA Credit of 1970. Although this list is considered an accurate assessment of the DPW needs, no reevaluation has been made of the original requirements analysis of 1968. A.I.D. feels the 1968 analysis should be updated before final approval is given for procurement under this loan. The cost estimate of \$2 million has been made on the basis of current unit prices for the equipment on the list with the inclusion of 15% for initial spare parts, the cost of shipping and insurance.

The IBRD is continuing its highway maintenance program and is providing \$725,000 in the proposed credit for the FX costs of further training and technical assistance. These activities are being carried out under contracts with the International Labor Office (ILO) and the French consulting firm, BCEOM (see Annex G). It is planned to have these firms prepare the updated requirements analysis for the equipment and also to develop the equipment procurement specifications. Procurement services for U.S. equipment will be supplied by a U.S. consulting firm. The \$2 million reserve includes funds for this purpose.

I. Technical Soundness

Preliminary engineering under the previous IDA Credit was carried out in sufficient detail to provide a basis for the cost estimates in Section III. D above. The revisions by the IBRD and A.I.D. to increase the consultant's original contingency and engineering costs and to account for the increases resulting from U.S. bidding are believed to provide a reasonably firm cost estimate for the project. The consultant has, since completing his preliminary engineering, obtained approximately two-thirds of his required soil test results from the DPW. Any variations resulting from these soil tests are within the quantity contingency allowance.

J. Environmental Considerations

Since the project is solely a rehabilitation and reconstruction of an existing highway with only very minor changes in alignment where the straightening of some dangerous curves is involved, no modification of the environment or ecological changes are envisioned.

IV. FINANCIAL ANALYSIS

A. Financial Requirements

Total financial requirements for the proposed Mali Highway Development project are as follows:

	<u>F.E.(\$)</u>	<u>Local(\$)</u>	<u>Total(\$)</u>
a. Bamako-Bougouni Road Construction	3,500	1,500	5,000
b. Faladie-Segou Road Construction	4,062	2,188	6,250
c. Engineering Supervision	588	148	736
d. T.A. for Highway Maintenance	725	75	800
e. Equipment for Highway Maintenance	2,750	-	2,750
f. Feasibility Study for Bamako-Kolokani	194	66	260
g. Engineering/Construction Contingency	<u>3,659</u>	<u>1,532</u>	<u>5,191</u>
Total	15,478	5,509	20,987
		Say	21,000

B. Financial Plan

Pursuant to discussions with the GOM and the World Bank, A.I.D. has agreed to finance the total cost of reconstruction of the Bamako-Bougouni Road and \$2 million of the total \$2.7 million foreign exchange cost of the procurement of highway maintenance equipment. The balance of the equipment will be the GOM's contribution and will be utilized for procurement of motor vehicles. The IDA and GOM will finance the remaining project components, including engineering supervision of the A.I.D. financed Bamako-Bougouni Road. On this basis, the financial plan for the project is as follows:

	<u>F.E.(\$)</u>	<u>Local(\$)</u>	<u>Total(\$)</u>
A.I.D. Loan	6,754	2,037	8,791
IDA Credit	8,000	-	8,000
GOM Contribution	<u>724</u>	<u>3,472</u>	<u>4,196</u>
Total	15,478	5,509	20,987
		Say	21,000

C. Justification for Concessional Terms

The proposed A.I.D. loan of \$8.8 million would be on concessional terms of 40 years, including a 10-year grace period with interest at 2% per annum during the grace period and 3% per annum thereafter. The IDA credit would be at IDA's standard concessional terms of 50 years, including a 10-year grace period with a service charge of 3/4 of 1% on the disbursed balance.

As one of the "least developed" countries as defined by the U.N., Mali qualifies as one of the countries for which A.I.D. has agreed in principle to provide the most concessional development assistance including concessional loan terms as possible. In terms of Mali's severe and chronic budget and balance of payments deficits, A.I.D. concessional terms appear to be more than appropriate. In addition to providing concessional terms, the A.I.D. loan will also finance 100% of the estimated costs for reconstruction of the Bamako-Bougouni Road, including the local currency component. This approach is considered consistent with the A.I.D. policy of taking extraordinary measures to assist the "least developed" countries and in terms of limited GOM capability to mobilize domestic revenue to finance its development investments. It is estimated that the local currency component will not exceed \$2,040,000 or 23% of the A.I.D. loan.

D. Prospects for Repayment

Mali's present economic and financial picture can hardly be described as being bright, however, there are hopeful signs indicating that improvement can be made.

Since the present government assumed responsibility in 1968, Mali's efforts have been directed at reversing its severe and chronic budget, trade and balance of payments deficits. The difficult problems facing the Mali economy are indicated, perhaps most graphically, in terms of Mali's foreign trade problems. In no year since the independence has Mali had a surplus on the commodity trade account and in some years the deficits in this account have been extremely large. Thus, expenditures in the development program, specifically those requiring imports, have had to be financed from (1) external development assistance, and (2) external borrowing. On a fiscal year basis the deficits in the commodity trade account have been running between 10 billion M.F. in 1965/66 to 13 billion M.F. in 1968 and 8.1 million M.F. in 1970.

Recent developments in Mali have, however, been characterized by a continued pragmatic attitude on the part of the GOM toward economic problems. Following the establishment of convertibility of the Malian franc into the French franc in 1968, considerable progress has been made in liberalizing prices and trade. The measures taken to this end include reduction of the selling and purchasing monopolies of state trading enterprises and of the minimum equity requirements for private traders; relaxation of import and foreign exchange restrictions and reduction of export taxes; and increases in producer prices and controlled retail prices. These measures have spurred production and drastically reduced clandestine trade. Monetary and fiscal restraint has checked inflation. Public finances have however showed little improvement and despite some relief Mali's external public debt is growing more burdensome.

The terms of Mali's external debt are generally favorable: very low interest rates averaging 0.7 percent and on the whole, apparently comfortable repayment periods.

Term Structure of Mali's External Public Debt of December 31, 1970

<u>Interest Rate</u>		<u>Grace Period</u>		<u>Maturity (incl. Grace Period)</u>	
Nil	70%	2 years or less	15%	Up to 5 years	1%
2% or less	14%	Over 2-5 years	46%	Over 5-10 years	22%
Over 2% to 5%	13%	Over 5 years	39%	Over 10-15 years	35%
Over 5%	3%			Over 20 years	21%
Average: 0.7%					

This picture is deceiving, however, as it does not reflect the time sequence of the loans and hence the time profile of the related service payments. Virtually all of the more medium-term debt, i.e. loans of up to 15 years maturity, was contracted during the 1964-1967 period. As this debt accounts for nearly 45 percent of Mali's total external debt, debt service obligations will soon mount rapidly and stay high throughout the seventies.

Mali's sustained efforts at obtaining debt relief so far have met with some success, in terms of amounts as well as in terms of the periods of deferment. Negotiations with socialist countries in 1965 and 1966

resulted in relief of around US \$17 million, mainly through postponement of payments due the U.S.S.R. over the period 1966-1969 and elimination of interest on contracted debts. The German Government agreed in 1968 to deferment of payments of US \$0.9 million during 1968-1972 under its then only loan to Mali.

Relief obtained in 1969 and 1970 was again piecemeal and essentially short-term. The only longer-term arrangement was accorded by the U.S.S.R. which agreed to reschedule US \$25 million debt service payments due during the 1970-1973 period into 12 annual payments of equal size beginning in 1979. China accepted deferment by 5 years of payments of US \$20 million due in 1970 and 1971. Similar short-term agreements were reached with Ghana and Algeria, involving deferment by 4-5 years of US \$5.3 million.

Based on the debt outstanding at the end of 1970 and taking into account the deferment agreements noted, Mali's debt service obligations are projected to increase from US \$4 million in 1970 to US \$13 million in 1973 and US \$27 million in 1976; they would stay around US \$20 million for the rest of the decade and in 1990 would still be 40 percent higher than in 1970. It is unlikely that Mali will be able to raise payments of this order from its own resources.

In 1970 when external debt service obligations amounted to 11 percent and 13 percent respectively of government revenues and recorded export earnings, Mali defaulted on most of its obligations (U.S. \$3 million out of U.S. \$4 million). In 1973, debt service obligations would be 27 percent of estimated government revenues and 33 percent of estimated export earnings. While in 1976 the peak year of external debt service obligations, the corresponding ratios would be in the order of 50 percent. In the absence of a debt reorganization, regular imports would have to be compressed by up to 60 percent from their 1970 level. Such compression of imports would seriously depress the operation and development of the economy and cannot be realistically expected.

Of the US \$268 million external debt outstanding at the end of 1970, US \$52 million or 18 percent were yet to be disbursed. The great bulk of the pipeline related to loans from China (US \$29.5 million) and the U.S.S.R. (US \$5.1 million) and to credits from IDA (US \$10.8 million). The balance was under loans from Germany (US \$2.7 million), the U.S.A. (US \$1.2 million), the African Development Bank (US \$0.5 million) and the U.K. (US \$0.2 million). Except for the small amount yet to be disbursed under what is a British suppliers' credit, all of the pipeline is official aid.^{1/}

^{1/} Source: ICRD Economic Report on Mali No. AW-30a dated November 10, 1971

Based upon the foregoing analysis, Mali's ability to service its external debt must be assumed to be predicated upon continued budgetary subvention provided by the French and the ability of the GOM to attract continued concessional foreign aid and to develop export oriented projects with early payoffs. The proposed loan is directly related to this objective by providing concessional assistance in order to improve transport infrastructure required for Mali exports to and through the Ivory Coast. In view of the GOM emphasis upon improved export earnings, the present GOM/French financial relationship and the continuing GOM efforts at rescheduling its existing debt, reasonable prospect appear to exist for payment of interest during the ten-year grace period and repayment of the A.I.D. loan over the following thirty years.

E. Other Sources of Financing

Financing of the proposed project will be on a multi-donor basis with the IDA and A.I.D. contributing 38% and 42% respectively of the total. The GOM will contribute 20%. The GOM has received financial assistance from a number of donors from both the Free World and Communist block. At the present time, the major sources of Free World external assistance to Mali are the World Bank, UNDP, FAC, FED and the U.S.

In terms of the specific project proposal, private financing for this type of public sector infrastructure investment is not available. The Export-Import Bank has also indicated it is not interested in the project and other Free World donors are already committed to financing other activities in Mali.

V. IMPLEMENTATION PLAN

A. Engineering

The IDA financed consultant, Kez International, is currently completing the final engineering design for the two roads. A subsequent contract for engineering supervision will be financed by the IDA. A.I.D. will have certain prerogatives in regard to approval of the firm selected, staffing and scope of work. It has tentatively been agreed with IDA that the consulting engineer will field two separate teams to provide independent supervision of construction of the two roads.

B. Construction

Separate tender documents are presently being finalized by the IDA financed consultant for both the IDA and A.I.D. financed roads. It is intended that the tender process proceed on a parallel basis with the AID project restricted to U.S., Mali and Code 941 contractors. The IDA road will be open to international tender by firms from World Bank member countries and Switzerland.

In view of the magnitude of the work required, it is anticipated that a U.S. firm will be awarded the contract for the A.I.D. financed road and will subsequently be more competitive with other free world firms for the IDA financed road.

C. Equipment Procurement

Procurement of highway maintenance equipment under the A.I.D. loan will be handled by a U.S. consulting engineer. Equipment specifications will be prepared by a team of ILO and BCEOM consultants presently under an IDA financed contract with the GOM. Prior to procurement of any equipment, the GOM will be required to have the ILO consultants prepare an updated requirements analysis for IBRD review and A.I.D. approval.

D. Project Schedule

Based upon the foregoing engineering, construction and equipment procurement plans, the following schedule is proposed for implementation of the A.I.D. financed project components:

1. Road Construction Schedule

Loan Authorization	February 1973
Prequalification of Contractors	February 1973
Selection of Consulting Engineer	February 1973
Engineering Contract Signed	March 1973
Final Design Completed	March 1973
IFB Available (90-day bid period)	March 1973
Loan Signed	March 1973
Bid Opening	May 1973
Engineer's Construction Contract Recommendation	June 1973
Construction Contract Award	July 1973
Construction Contract Signed	August 1973
Contractor Mobilization	September 1973
Contractor on Site	October 1973
Construction Completed	September 1975

2. Highway Equipment Procurement Schedule

Loan Authorized	February 1973
Current Requirement Analysis	May 1973
Draft Equipment Specification	July 1973
Selection U.S. Procurement Agent	July 1973
IFB Available (60-day bid period)	August 1973
Bid Opening	October 1973
First Deliveries	January 1974
Final Deliveries	June 1974

To the maximum extent possible, the A.I.D. financed work will proceed in tandem with the IDA financed work. A condition to the effectiveness of the A.I.D. loan will in fact be execution of the IDA credit agreement, selection of a supervising engineer and execution of a contract for engineering supervision.

VI. ECONOMIC EFFECTS OF LOAN

A. Impact on U.S. Economy

This loan does not conflict with any U.S. business interests. To the contrary, the loan will assist the U.S. economy by financing approximately \$8.8 million of U.S. construction services and highway equipment. In addition, a U.S. firm awarded the construction contract for the Bamako-Bougouni Road will be able to compete more effectively for the IDA financed international tender for the Faladie-Segou Road.

B. Impact on U.S. Balance of Payments

Procurement under this loan will be in accordance with A.I.D.'s untying rules authorized by President Nixon. It is expected, however, that a U.S. construction firm will be awarded the contract due to a lack of any known local firms qualified to carry out a project of this size. To the extent that a U.S. firm having been awarded the contract for the A.I.D. work is, as a result, more competitive and is awarded the contract for construction for the IDA financed work, there would be a net return from the project in terms of the U.S. balance of payments.

C. Effect on Private Enterprise

The proposed loan will finance a contract with a private construction firm. In addition, once the road is reconstructed, private Malian transport firms, small business and agriculture producers will be able to move their goods at reduced costs.

CHECKLIST OF STATUTORY CRITERIA
DEVELOPMENT LOAN FUND

Many of the questions require only yes or no answers. Others, however, must be answered more fully. In those cases, a specific reference to explicit discussion of the matter in the loan paper will suffice. But where the loan paper does not deal explicitly with a matter that clearly requires more than a yes or no response, sufficient response must be made to indicate that the matter has been appropriately considered.

The following abbreviations are used in the checklist:

FAA - Foreign Assistance Act of 1961, as amended, incorporating amendments effected by the Foreign Assistance Act of 1971.

App. - Foreign Assistance and Related Agencies Appropriations Act, 1971.

MMA - Merchant Marine Act of 1936, as amended

Space for answers is provided in the margin to the right of each question. This form must be made a part of the Capital Assistance Paper.

I. COUNTRY PERFORMANCE

A. Progress Towards Country Goals

1. FAA §§201(b)(5), 201(b)(7), 201(b)(8), 208. Discuss the extent to which the country is:

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

Mali provides extension service for both livestock and agriculture to improve methods of animal husbandry and crop production. Mali has also joined the Entente Livestock Community in order to provide for more rational development of livestock production and distribution throughout the West Africa Entente states.

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

The GOM is trying to encourage both foreign and domestic private investment and has enacted a new investment code designed to encourage foreign private investment.

(c) Increasing the people's role in the developmental process.

Economic development efforts by the GOM reflect its determination to meet its people's aspirations. This project will create additional employment for Mali nationals.

(d) Allocating expenditures to development rather than to unnecessary military purposes or intervention in other free countries' affairs.

Increasing amounts of expenditures are being devoted by the GOM to development purposes. Military expenditures in Mali are essentially limited to that acquired to maintain internal order and stability.

(e) Willing to contribute funds to the project or program.

The GOM is providing funds to support the project (see Section IV B of loan paper).

(f) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangement; 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 GOM is directing its attention to more efficient control of government spending, the formulation of a more equitable tax structure. Private enterprise is also being encouraged for both national entrepreneurs and foreign investment. The government is also carrying out programs designed to train the people to productively assist in economic development.

(g) Responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

The construction of the road is an impressive indication of the GOM's responsiveness to the social concerns and needs of its people.

B. Relations with the United States

1. FAA §620(c). Is the government indebted to any U.S. citizen for goods or services furnished or ordered where: (a) such citizen has exhausted available legal remedies, including arbitration, or (b) the debt is not denied or contested by the government, or (c) the indebtedness arises under such government's, or a predecessor's unconditional guarantee?

No such indebtedness is known to exist.

2. FAA §620(d). If the loan is intended for construction or operation of any productive enterprise that will compete with U.S. enterprise, has the country agreed that it will establish appropriate procedures to prevent export to the U.S. of more than 20% of its enterprise's annual production during the life of the loan?

Not applicable.

3. FAA §620(e)(1). Has the country's government, or any agency or subdivision thereof, (a) nationalized or expropriated property owned by U.S. citizens or by any business entity not less than 50% beneficially owned by U.S. citizens, (b) taken steps to repudiate or nullify existing contracts or agreements with such citizens or entity, or (c) imposes or enforced discriminatory taxes or other exactions, or restrictive maintenance or operation conditions? If so, and more than six months has elapsed since such occurrence, identify the document indicating that the government, or appropriate agency or subdivision thereof, has taken appropriate steps to discharge its obligations under international law toward such citizen or entity? If less than six months has elapsed, what steps if any has it taken to discharge its obligations?

We are not aware of any GOM actions to nationalize or expropriate U.S.-owned property.

4. 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, and failed to take appropriate measures to prevent a recurrence and to provide adequate compensation for such damage or destruction?

No.

5. FAA §620(l). Has the government instituted an investment guaranty program under FAA §221(b)(1) for the specific risks of inconvertibility and expropriation or confiscation? Yes.
6. FAA §620(o): Fisherman's Protective Act of 1954, as amended, Section 5. Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters? If, as a result of a seizure, the U.S.C. has made reimbursement under the provisions of the Fisherman's Protective Act and such amount has not been paid in full by the seizing country, identify the documentation which describes how the withholding of assistance under the FAA has been or will be accomplished. Not applicable.
7. FAA §620(q). Has the country been in default, during a period in excess of six months, in payment to the U.S. on any FAA loan? Mali is not in default on any FAA loans.
8. FAA §620(t). Have diplomatic relations between the country and the U.S. been severed? If so, have they been renewed? There has been no break in relations with the U.S.

C. Relations with Other Nations and the U.N.

1. FAA §620(i). Has the country been officially represented at any international conference when that representation included planning activities involving insurrection or subversion directed against the U.S. or countries receiving U.S. assistance? Not to AID's knowledge.

2. FAA §§620(a), 620(n); Has the country sold, furnished, or permitted ships or aircraft under its registry to carry to Cuba or North Viet-Nam items of economic, military, or other assistance? No.

3. FAA §620(n); App. §108 What is the status of the country's U.N. dues, assessments, or other obligations? Does the loan agreement bar any use of funds to pay U.N. assessments, dues, or arrearages? To AID's knowledge the GOM is current on its obligations to the U.N. The loan agreement will prohibit use of loan funds to pay U.N. assessments.

D. Military Situation

1. FAA §620(i). Has the country engaged in or prepared for aggressive military efforts directed against the U.S. or countries receiving U.S. assistance? Not to AID's knowledge.

2. FAA §620(a). What is (a) the percentage of the country's budget devoted to military purposes, and (b) the amount of the country's foreign exchange resources used to acquire military equipment? Is the country diverting U.S. development assistance or P.L. 480 sales to military expenditures? Is the country diverting its own resources to unnecessary military expenditures? (Findings on these questions are to be made for each country at least once each fiscal year and, in addition, as often as may be required by a material change in relevant circumstances.) Has the country spent money for sophisticated weapons?

- a) 16.6%
- b) N.A.
- c) No
- d) No
- e) No

II. CONDITION OF THE LOAN

A. General Soundness

-- Interest and Repayment

1. FAA §§201(d); 201(b)(2). Is the rate of interest excessive or unreasonable for the borrower? Are there reasonable prospects for repayment? What is the grace period interest rate; the following period interest rate? Is the rate of interest higher than the country's applicable legal rate of interest?

The rate of interest is not considered excessive or unreasonable for the Borrower. See section IV-D for prospect for repayment, and Section IV-C for interest and terms. The rate of interest is not higher than the GOM's applicable legal rate of interest.

-- Financing

1. FAA §201(b)(1). To what extent can financing on reasonable terms be obtained from other free-world sources, including private sources within the U.S.?

See Section IV E of the loan paper.

-- Economic and Technical Soundness

1. FAA §§201(b)(2), 201(e). The activity's economic and technical soundness to undertake loan; does the loan application, together with information and assurances, indicate that funds will be used in an economically and technically sound manner?

Yes: See Sections II and III of the loan paper.

2. FAA §611(a)(1). Have engineering, financial, and other plans necessary to carry out assistance, and a reasonably firm estimate of the cost of assistance to the U.S., been completed?

Yes: See Section III of loan paper.

3. FAA §611(b); App. §101. If the loan or grant is for a water or related land-resource construction project or program, do plans include a cost-benefit computation? Does the project or program meet the relevant U.S. construction standards and criteria used in determining feasibility?

Not a water or related land resource project, however, see Section II of loan paper for IRR analysis.

4. FAA §611(a). If this is a Capital Assistance Project with U.S. financing in excess of \$1 million, has the principal A.I.D. officer in the country certified as to the country's capability effectively to maintain and utilize the project?

Yes.

B. Relation to Achievement of Country and Regional Goals

-- Country Goals

1. FAA §§207, 281(a). Describe this loan's relation to:

a. Institutions needed for a democratic society and to assure maximum participation on the part of the people in the task of economic development.

The project has as its principle objective decreasing the cost of transporting goods. This would encourage participation on the part of the people to expand agricultural production.

b. Enabling the country to meet its food needs, both from its own resources and through development, with U.S. help, of infrastructure to support increased agricultural productivity.

Improvement of the GOM's transport facilities will facilitate increased agriculture production through reduced transport costs.

c. Meeting increasing need for trained manpower.

The IDA financed portion of this project will assist the GOM in meeting its manpower requirements for improved maintenance of its highway system.

d. Developing programs to meet public health needs.

Not applicable.

e. Assisting other important economic, political, and social development activities, including industrial development; growth of free labor unions; cooperatives and voluntary agencies; improvement of transportation and communication systems; capabilities for planning and public administration; urban development; and modernization of existing laws.

The project will have a direct influence on the development of business activities along the Bamako-Bougouni Corridor and will improve one of Mali's main road transport axis.

2. FAA §201(b)(4). Describe the activity's consistency with and relationship to other development activities, and its contribution to realizable long-range objectives.

See Section II of loan paper.

3. FAA §201(b)(9). How will the activity to be financed contribute to the achievement of self-sustaining growth? See Sections I C & D and Section II of loan paper.

4. FAA §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 resource requirements and the relationship between ultimate objectives of the project and overall economic development.

See Section II and III of loan paper.

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

See Section II of loan paper.

6. FAA §201(b). How does the program under which assistance is provided recognize the particular needs, desires, and capacities of the country's people; utilize the country's intellectual resources to encourage institutional development; and support civic education and training in skills required for effective participation in political processes.

The AID program in Mali has been developed with these criteria in mind. Improvement of the Mali transport system will have an impact on the efficiency of Mali's agricultural production and flow of foods to the urban markets.

7. FAA #601(a). How will this loan encourage the country's efforts 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?

The loan, by helping to improve the road transport network and to strengthen the GOM agency responsible for road transport, will stimulate the evacuation of products to export markets and facilitate imports, will open opportunities for production and movement of agriculture and manufactured products, and will encourage individual initiatives in these areas, thereby stimulating competition.

8. FAA #202(a). Indicate the amount of money under the loan which is: going directly to private enterprise; going to intermediate credit institutions or other borrowers for use by private enterprise; being used to finance imports from private sources; or otherwise being used to finance procurements from private sources.

See Sections V A and VI A of loan paper.

9. FAA #611(a)(2). What legislative action is required within the recipient country? What is the basis for a reasonable anticipation that such action will be completed in time to permit orderly accomplishment of purposes of loan? None required.

-- *Regional Goals*

1. FAA §619. *If this loan is assisting a newly independent country, to what extent do the circumstances permit such assistance to be furnished through multilateral organizations or plans?*

This project is being financed as a multi-donor activity with the IDA.

2. FAA §209. *If this loan is directed at a problem or an opportunity that is regional in nature, how does assistance under this loan encourage a regional development program? What multilateral assistance is presently being furnished to the country?*

This is not a regional project. See Section IV of loan paper.

C. Relation to U.S. Economy

-- *Employment, Balance of Payments, Private Enterprise*

1. FAA §§201(b)(6); 102, Fifth. *What are the possible effects of this loan on U.S. economy, with special reference to areas of substantial labor surplus? Describe the extent to which assistance is constituted of U.S. commodities and services, furnished in a manner consistent with improving the U.S. balance of payments position.*

See Sections VI A & B of loan paper.

2. FAA 88612(b), 636(h). What steps have been taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. and local currencies contributed by the country are utilized to meet the cost of contractual and other services, and that U.S. foreign-owned currencies are utilized in lieu of dollars?

It is deemed inappropriate to attempt to use U.S.G. owned foreign currency to pay cost of U.S. goods and services. U.S. owned local currency is not available. The GOM is fully dependent on external sources for its development budget.

3. FAA 8601(d); App. 8109. If this loan is for a capital project, to what extent has the Agency encouraged utilization of engineering and professional services of U.S. firms and their affiliates? If the loan is to be used to finance direct costs for construction, will any of the contractors be persons other than qualified nationals of the country or qualified citizens of the U.S.? If so, has the required waiver been obtained?

See Section V A & B of loan paper. The answer to the second question is no.

4. FAA 8608(a). Provide information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.

Excess property deemed not suitable for this project in view of nature and use of goods to be purchased.

5. FAA 8602. What efforts have been made to assist U.S. small business to participate equitably in the furnishing of commodities and services financed by this loan?

The Agency's advertisement requirement will be complied with

6. FAA §621. If the loan provides technical assistance, how is private enterprise on a contract basis utilized? If the facilities of other Federal agencies will be utilized, in what ways are they particularly suitable; are they competitive with private enterprise (if so, explain); and how can they be made available without undue interference with domestic programs?

Not applicable.

7. FAA §611(c). If this loan involves a contract for construction that obligates in excess of \$100,000, will it be on a competitive basis? If not, are there factors which make it impracticable?

Yes.

Procurement

1. FAA §604(a). Will commodity procurement be restricted to U.S. except as otherwise determined by the President?

Yes.

2. FAA §604(b). Will any part of this loan be used for bulk commodity procurement at adjusted prices higher than the market price prevailing in the U.S. at time of purchase?

Not applicable.

3. FAA §604(e). Will any part of this loan be used for procurement of any agricultural commodity or product thereof outside the U.S. when the domestic price of such commodity is less than parity?

No.

D. Other Requirements

1. 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?

This project qualifies under the "multi-donor" exception to the country limitation rule. See G.C. memorandum to file dated January 2, 1973.

2. App. B106. Does the loan agreement provide, with respect to capital projects, for U.S. approval of contract terms and firms?

The loan agreement will require such approvals.

3. FAA §20(k). If the loan is for construction of a productive enterprise, with respect to which the aggregate value of assistance to be furnished will exceed \$100 million, what preparation has been made to obtain the express approval of the Congress?

Not applicable.

4. FAA §620(b), 620(f):

Has the President determined that the country is not dominated or controlled by the international Communist movement? If the country is a Communist country (including, but not limited to, the countries listed in FAA §620(f)) and the loan is intended for economic assistance, have the findings required by FAA §620(f) been made and reported to the Congress?

Mali is not a communist or "dominated country".

5. FAA §620(h). What steps have been taken to insure that the loan will not be used in a manner which, contrary to the best interest of the United States, promotes or assists the foreign aid projects of the Communist-bloc countries?

Procurement of goods and services for the project will be limited to Mali and Code 941. Loan Agreement will restrict the use of funds to A.I.D. project purposes.

6. App. §110. Will any funds be used to finance procurement of iron and steel products for use in Vietnam other than as contemplated by §110.

No.

7. FAA §636(i). Will any part of this loan be used in financing non-U.S.-manufactured automobiles? If so, has the required waiver been obtained?

The answer to the first question is no.

8. FAA §§620(a)(1) and (2), 620(p); No.
Will any assistance be furnished or funds made available to the government of Cuba or the United Arab Republic?
9. FAA §620(a). *Will any part of this loan be used to compensate owners for expropriated or nationalized property? If any assistance has been used for such purpose in the past, has appropriate reimbursement been made to the U.S. for sums diverted?* The answer to the first question is no.
10. FAA §201(f). *If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise?* Local construction firms will be eligible to furnish services under the loan.
11. App. §104. *Does the loan agreement bar any use of funds to pay pensions, etc., for persons who are serving or who have served in the recipient country's armed forces?* The Loan Agreement will restrict the use of funds to the project.

12. MMA § 901.b. Does the loan agreement provide, for compliance with U.S. shipping requirements, that at least 50% of the gross tonnage of all commodities financed with funds made available under this loan (computed separately by geographic area for dry bulk carriers, dry cargo liners, and tankers) be transported on privately owned U.S.-flag commercial vessels to the extent such vessels are available at fair and reasonable rates for U.S. flag vessels. Does the loan agreement also provide for compliance with U.S. shipping requirements, that at least 50% of the gross freight revenues of goods shipped under this loan, must be earned by privately owned U.S.-flag commercial vessels to the extent such vessels are available at fair and reasonable rates for U.S.-flag vessels?
- The loan agreement will include appropriate language to assure compliance with U.S. shipping requirements.
13. FAA. Section 481. Has the country failed to take adequate steps to prevent narcotic drugs from entering the U.S. unlawfully?
- No.
14. FAA. Section 604.e. Has there been compliance with restriction against procuring with AID funds agricultural commodities outside the U.S. when the domestic price of such commodity is less than parity.
- Yes.
- App. § 109. Compliance with requirement with regard to financing construction work performed by Third Country Nationals.
- Appropriate requirements will be included in the loan agreement and construction contract.

MALI
HIGHWAY REHABILITATION PROJECT

Fuel Consumption: 1964-1971
(m³)

	<u>1964</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>Average Annual Growth</u>	
						<u>1964-68</u>	<u>1968-71</u>
Gasoline	34,105	37,965	39,965	41,800	43,900	3%	5%
Diesel oil	17,470	18,735	19,230	21,600	22,100	2%	5.5%
Total	<u>51,575</u>	<u>56,700</u>	<u>59,195</u>	<u>63,400</u>	<u>66,000</u>	<u>2.5%</u>	<u>5%</u>

Source: Tractone], "Mali Transport Survey," July 1969.
DPW and petroleum companies, June 1972.

September 15, 1972

MALIHIGHWAY REHABILITATION PROJECTMotor Vehicle Fleet: 1965-1971

<u>Type of Vehicle</u>	<u>Total Number by End of Year</u>					<u>Distribution Percent of total in 1971</u>
	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	
Passenger cars	4,522	5,722	7,000	7,650	8,300	53%
Pick-ups, jeeps small buses	2,668	3,395	3,400	3,700	4,000	25%
Trucks (2-10 t)	2,098	2,657	2,700	2,850	3,000	19%
Trailer trucks	229	291	310	335	360	2%
Buses	88	110	130	155	175	1%
Total	<u>9,605</u>	<u>12,175</u>	<u>13,540</u>	<u>14,690</u>	<u>15,835</u>	100%

Average annual increase over period 1965-1971: about 7%

Source: - Tractional, "Mali Transport Survey," July 1969.
 - IBRD estimates, December 1969.
 - Mission estimates, June 1972.

September 15, 1972

MALI
HIGHWAY REHABILITATION PROJECT

Highway Expenditures and Financing: 1968-1972
(MF million)

I. Expenditures

	<u>1967/68</u>	<u>1969^{1/}</u>	<u>1970</u>	<u>1971</u>	<u>1972^{2/}</u>
A. Current expenditures					
Administration	157	136	142	152	155
Maintenance	629	546	636	638	730
	<u>786</u>	<u>682</u>	<u>778</u>	<u>790</u>	<u>885</u>
B. Capital expenditures (including equipment)	<u>1,639</u>	na	<u>1,790</u>	<u>2,939^{3/}</u>	na
Total	2,425		2,568	3,729	

II. Financing

A. Internal sources					
Road Fund	749	700	1,158	1,218	1,752
Other	<u>217</u>	<u>na</u>	<u>142</u>	<u>152</u>	<u>155</u>
	966		1,300	1,370	1,907
B. External sources	<u>1,459</u>	na	<u>1,268</u>	<u>2,359</u>	na
Total	2,425		2,568	3,729	

Note: na = not available

^{1/} Change in fiscal year.

^{2/} Budgeted or estimated.

^{3/} Including local expenditures under IDA project.

Source: DPA and mission estimates, June 1972

September 15, 1972

MALIHIGHWAY REHABILITATION PROJECTEstimated Contribution of Road Users to Government Revenues: 1971

<u>Source of Revenue</u>	<u>Applicable and Duties</u>	<u>Estimated Receipts (MF billion)</u>
<u>Petroleum Products</u>		
Gasoline	43,900 m ³	MF 34/lit
Diesel oil	22,100 m ³	MF 20/lit
Lubricants		
		2.29
		0.44
		0.05
		<u>2.97</u>
<u>Equipment and Parts:</u>		
New vehicles	1,764 vehicles	
	@ MF 1.8 million	
	= MF 3.2 billion	30%
Parts, tires, etc.	MF 2.4 billion	25%
		0.96
		0.60
		<u>0.40</u>
<u>Vehicle Registration</u>		
TOTAL ESTIMATED RECEIPTS FROM ROAD USERS:		3.94
As compared with:		
TOTAL HIGHWAY EXPENDITURES:		3.73
Total highway expenditures as % of receipts:		(95%)

Source: DPW and mission estimates, June 1972.

September 15, 1972

MALI

HIGHWAY REHABILITATION PROJECT

Economic Return on Rehabilitation and Strengthening Works

		<u>Bamako- Faladie- Senou (10 km)</u>	<u>Senou- Bougouni (145 km)</u>	<u>Faladie- Segou (223 km)</u>	<u>All Sections (378 km)</u>	
A.	<u>Best data estimates</u>					
	All works	24%	37%	32%	32%	
	Widening part	-	-	-	31%	
B.	<u>Sensitivity Analysis</u> (all works)	<u>Change %</u>				
	Base year traffic:					
	all traffic	- 15	23%	30%	27%	28%
	overseas traffic	-100	21%	28%	25%	26%
	Traffic growth rate:					
	all traffic	- 15	23%	34%	29%	30%
	overseas traffic	-100	23%	33%	-	30%
	Investment Costs	+ 15	22%	29%	28%	28%
	Savings in vehicle operating costs	- 15	23%	30%	28%	28%
	Savings in road maintenance costs	- 15	23%	30%	27%	28%

Source: Kez International, Ltd., Feasibility Study, February 1972.

September 15, 1972

MALIHIGHWAY REHABILITATION PROJECTTechnical Assistance Requirements
for Highway Maintenance and Feeder Road Betterment Program

Task	Field of Expertise	Number of Experts	Short-term Requirements			
			Provided Under Gr. 197-005	To be Provided Under Project	Total Needed	
Reorganization of Equipment Department (ILO)	Equipment management (Chief of mission)	1	33	6	39	
	Professional training (Deputy)	1	33	6	39	
	Workshop and machine tools	1	30	9	39	
	Equipment inspection	1	33	15	48	
	Administration and cost accounting	1	24	12	36	
	Procurement and inven- tory	1	30	6	36	
	Equipment maintenance and workshop operations		4	30	12	42
				25	15	40
25				10	35	
25				10	35	
		10	208	101	309	
Planning and Control of Highway Maintenance and Feeder Road System (DORH)	Highway planning (Chief of mission)	1	32	20	52	
	Administration and accounting	1	17	5	22	
	Highway engineering	1	3	2	5	
	Feeder road construc- tion	2	30	10	40	
			25	10	35	
	Equipment maintenance	2	30	10	40	
		2	10	15		
		7	117	72	189	

Source: DPM and mission estimates, June 1972.

AID Loan No.
Cap. Asst. Paper No. AID/DLC/P
Project No. 625-22-310-614

CAPITAL ASSISTANCE LOAN AUTHORIZATION

Provided from: Development Loan Funds

MALI HIGHWAY DEVELOPMENT

Pursuant to the authority vested in the Administrator of the Agency for International Development (hereinafter called "A.I.D.") by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part I, Chapter 2, Title I, the Development Loan Fund, to the Government of Mali (Borrower) of not to exceed Eight Million Eight Hundred Thousand Dollars (\$8,800,000) to assist in financing foreign exchange and local currency costs of goods and services for the reconstruction of the Bamako-Bougouni Road and the foreign exchange cost of U.S. road maintenance equipment. This loan will be subject to the following terms and conditions:

1. Interest Rate and Terms of Repayment. Borrower shall repay the loan to A.I.D. 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. interest on the outstanding balance at the rate of two percent (2%) per annum

during the grace period and three percent (3%) per annum thereafter.

2. Currency of Repayment. Provision shall be made for repayment of the loan and payment of the interest in United States dollars.

3. Other Terms and Conditions.

(a) Equipment, materials and services financed by the loan shall be procured from Mali and from countries included in Code 941 of the A.I.D. Geographic Code Book.

(b) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

ASSISTANT ADMINISTRATOR FOR AFRICA

DATE

