

## ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR

FROM: Lewis W. Lucke, DEO

SUBJECT: Mali Project 688-0212 - The Kayes-Nioro du Sahel Road

I. Problem:

Your signature is required to authorize a grant of five million dollars (\$5,000,000) from the Sahel Development Program to the Government of the Republic of Mali for the subject project.

II. Discussion:

A. Project Profile

The project is a \$5,000,000 grant to the Government of the Republic of Mali. It will, together with financial assistance from the international donor community, finance the construction of an all-weather road between Kayes and Nioro-du-Sahel in Mali's isolated First Region. The completion of this road should have substantial impact on the two large-scale development activities in the area (Operation Kaarta and Operation Kayes-Nord) and should play a general and basic role for supporting regional development efforts of the GRM.

The project outputs consist of the final engineering design, supervision and construction of a 250 km. road between Kayes and Nioro. User and beneficiary analyses have led to a split-level design for construction. The road will be constructed to five-meter paved standards from Kayes to Dialaka (82 km.) and to five-meter laterite standards from Dialaka to Nioro (168 km.). Construction will be carried out by a qualified private contractor to be selected in accordance with acceptable competitive bidding procedures.

It is anticipated that AID's \$5,000,000 contribution to the project will consist of (1) approximately \$1,200,000 for the final engineering design to be undertaken by a U.S. firm; (2) \$1,900,000 for the supervision of actual construction, also by a U.S. firm; (3) \$1,900,000 toward an undivided share of the general construction contract including Code 941 and/or local cost procurement of goods and services for the project.

## B. Beneficiaries

Direct potential beneficiaries of the project can be broken into two distinct groups. The largest group to benefit will be the low-income rural herders and small farmers (male and female), primarily oriented toward the subsistence sector and who are located within the boundaries of Operations Kaarta and Kayes-Nord ---potentially 300,000 people. The second group to directly benefit from the project will be the regional transport industry. Road improvement will result in a more efficient transport sector and a substantial reduction in vehicle operating costs.

## C. Financial Summary

The anticipated total cost of the project is \$39,991,000. The projection of expenditures by fiscal year is:

	<u>AID</u>	<u>Other Donors</u>	<u>Total</u>
FY - 81	300	0	300
FY - 82	900	0	900
FY - 83	578	2435	3013
FY - 84	1332	17225	18557
FY - 85	1075	10913	11988
FY - 86	<u>815</u>	<u>4418</u>	<u>5233</u>
Total	5000	34,991	39,991

## D. Technical and Environmental Considerations

1. The plans and specifications and cost estimates meet the requirements of Section 611 (a) of the Foreign Assistance Act, and the project is deemed technically sound.
2. The Initial Environmental Examination (Section 2 E) resulted in a recommendation for a Negative Determination. An Environmental Assessment was prepared within the scope of the TAMS Kayes-Nioro Road Feasibility Study which foresaw no permanent or irreversible adverse effects on the environment.

## E. Conditions Precedent

1. Disbursement of funds is conditioned on:
  - a) An executed contract for final engineering design services acceptable to AID with a firm acceptable to AID.
  - b) Evidence satisfactory to AID of multi-donor financing available to finance road construction.

2. Additional disbursement of funds is conditioned on:
  - (a) Evidence of a binding agreement between the Grantee and another donor or donors for financing the remainder of project construction costs.
  - (b) An executed construction contract acceptable to AID.
  - (c) An executed engineering supervision services contract acceptable to AID.
  - (d) A maintenance plan for the Kayes-Nioro Road.

F. Implementation

The source and origin of commodities, goods and services being procured for this project will be from AID Geographic Code 241. A waiver to increase the shelf item procurement limitation from \$2,500 per unit to \$6,500 has been requested.

G. Committee Action and Congressional Apprisement

1. The Mali Road Development PID (Kayes-Nioro Road) was approved in AID/Washington on March 20, 1978.
2. The Mission Project Review Committee met on June 26, 1980. The Project Committee concluded that only minor changes were needed in the subject Project Paper and recommended approval of the project and the Project Grant Agreement.
3. Congress was apprised of this project in the FY 1980 Congressional Presentation projecting a \$5,000,000 obligation in that year.

H. Responsible Project Officers

George Thompson, Mission Engineer, USAID/Bamako  
Roger Simmons, Project Officer, AFR/DR/SFWAP

III. RECOMMENDATIONS:

That you sign the Project Authorization (Tab A) authorizing the Kayes-Nioro du Sahel Road Project with planned obligations up to \$5,000,000 in accordance with procedures described in the Authorization.

Drafted by: DEO: L.W. Lucke;jm

## PROJECT AUTHORIZATION

Name of Country: Mali  
Name of Project: Kayes-Nioro du Sahel Road  
Number of Project: 688-0212

1. Pursuant to Part I, Chapter 1, Section 121 of the Foreign Assistant Act of 1961, as amended, (the "Act"), I hereby authorize the Kayes-Nioro du Sahel Road Project for the Government of the Republic of Mali involving a planned obligation of not to exceed Five Million Dollars (\$5,000,000) in grant funds over a one year period from date of authorization, subject to the availability of funds in accordance with the OYB allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project consists of technical services and commodities to assist the Government of the Republic of Mali (GRM) in facilitating rural development in the heretofore isolated First Region of Mali by constructing a 250 kilometer all-weather road from Kayes to Nioro du Sahel.

3. The Project Agreement, which may be negotiated or executed by the officer to whom such authority is delegated in accordance with AID regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as AID may deem appropriate:

(a) Source and Origin of Goods and Services

Goods and services, except for ocean shipping, financed by AID under the project shall have their source and origin in AID Geographic Code 941 or in the Cooperating Country, except as AID may otherwise agree in writing. Ocean shipping financed by AID under the project shall, except as AID may otherwise agree in writing, be financed only on flag vessels of the United States. The \$2,500 per unit limitation for shelf item procurement is hereby waived to \$6,500 per unit.

(b) Prior to disbursement of funds under this grant the GRM will submit to AID, in form and substance satisfactory to AID:

1) an executed contract for final engineering design services acceptable to AID with a firm acceptable to AID.

2) evidence of multi-donor funding of project construction.

(c) Prior to additional disbursement of funds for engineering supervision and construction, or prior to the issuance of docu-

mentation pursuant to which disbursement will be made to finance the said goods and services, the GRM will, except as otherwise agreed by the Parties in writing, furnish to AID in form and substance satisfactory to AID:

- 1) Evidence of a binding agreement between the GRM and another source or sources under which the donor(s) will finance the remainder of the construction costs of the Project.
- 2) An executed construction contract.
- 3) An executed engineering supervision services contract acceptable to AID with a firm acceptable to AID.
- 4) A maintenance plan for the Kayes-Nioro Road.

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Assistant Administrator

Drafted by: DEO: L.W.Lucke; jm

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add  
 C = Change  
 D = Delete

Amendment Number

DOCUMENT CODE  
3

2. COUNTRY/ENTITY  
Mali

3. PROJECT NUMBER  
688-0212

4. BUREAU OFFICE  
AFR

5. PROJECT TITLE (maximum 40 characters)  
Kaya-Nierya Sahel Road

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)  
MM DD YY  
09 30 86

7. ESTIMATED DATE OF OBLIGATION  
(Under "B" below, enter 1, 2, 3, or 4)  
A. Initial FY 80 B. Quarter 5 C. Final FY 80

8. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY 80			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	4575	425	5000	4575	425	5000
(Grant)	(4575)	(425)	(5000)	(4575)	(425)	(5000)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country						
Other Donor(s)				26,243	8728	34,991
<b>TOTALS</b>	4575	425	5000	30,818	9173	39,991

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) 5	780	320				5000		5000	
(2)									
(3)									
(4)									
<b>TOTALS</b>						5000		5000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code							
B. Amount							

13. PROJECT PURPOSE (maximum 480 characters)

To facilitate rural development in Mali's First Region by opening to better access a productive but remote area and stimulating development projects, the cash economy, and commerce.

14. SCHEDULED EVALUATIONS

15. SOURCE/ORIGIN OF GOODS AND SERVICES

Interim	MM	YY	MM	YY	Final	MM	YY	<input type="checkbox"/> 000	<input type="checkbox"/> 941	<input type="checkbox"/> Local	<input type="checkbox"/> Other (Specify)
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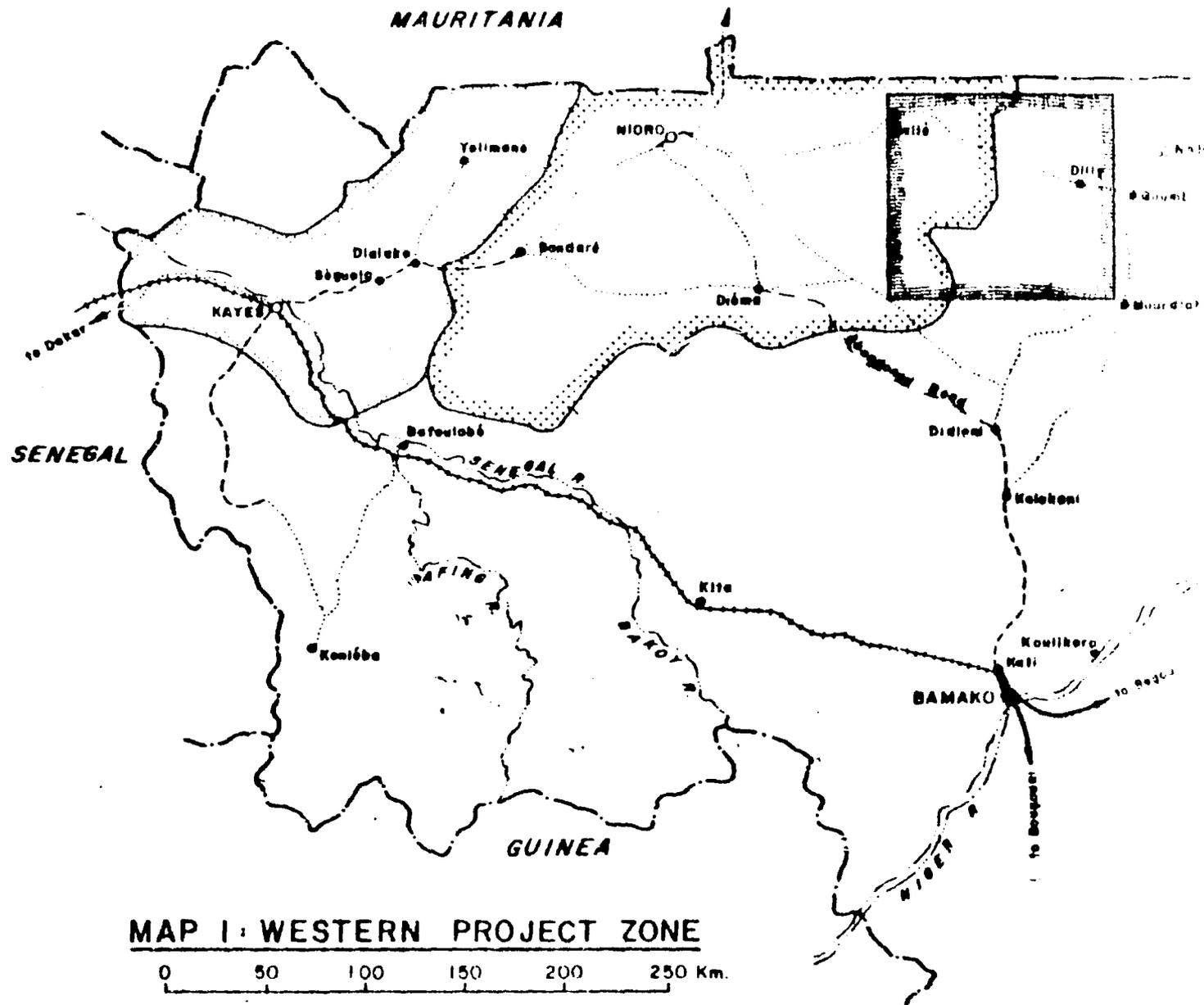
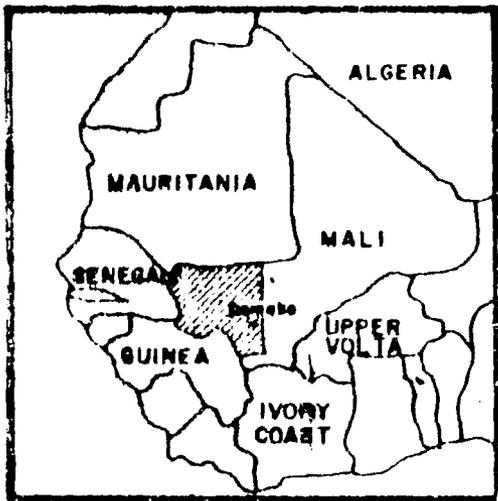
6. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment.)

17. APPROVED BY	Signature	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
	Title Acting Mission Director	

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**LEGEND**

- Paved Road
- Good Laterite Road
- - - Poor Laterite Road
- · · · · Track
- + + + + + Railroad
- - - - - River
- ▬▬▬▬▬▬▬ Limit of MII - Kaarta Project
- ▬▬▬▬▬▬▬ Limit of Térékolé - Kolimbé Project
- ▬▬▬▬▬▬▬ Limit of Livestock II Project

**MAP I: WESTERN PROJECT ZONE**

0 50 100 150 200 250 Km.

## Acronyms and Abbreviations

AID	Agency for International Development
DNTP	National Direction of Public Works Division
EA	Environmental Assessment
GR	Rural Engineering
GRM	Government of the Republic of Mali
IBRD	International Bank for Reconstruction and Development
IEE	Initial Environmental Examination
MTPT	Ministry of Public Works and Tourism
ODIK	Kaarta Integrated Development Operation
OPAM	Malian Agricultural Products Office
OVSTM	Operation Vallée Senegal-Terekole-Lake Magui
PID	Project Identification Document
PP	Project Paper
RFP	Request for Proposal
TAMS	Tippetts-Abbett-McCarthy-Stratton
TOR	Terms of Reference
USG	United States Government

## I. DESCRIPTION OF THE PROJECT

### A. Project Profile:

The Project is a \$5,000,000 grant to the Government of the Republic of Mali (GRM). It will, together with financial assistance from the international donor community, finance the construction of a road between Kayes and Nioro-du-Sahel in the First Region of Mali. Given the explicit importance of this road for the only two major GRM development efforts in the zone, (Operation Kaarta, Operation Kayes Nord), as well as the more general regional development, the GRM has accorded high priority to its construction.

The project outputs noted in this paper are the final design, supervision and construction of a 250 km. road from Kayes to Nioro. Detailed user and beneficiary analysis of the road has led the GRM and PP team to utilize a split-level design for construction. The road will be constructed to 5-meter paved standards (7-meter platform) from Kayes to Dialaka (82 km.) and to 5-meter laterite standards (7-meter platform) from Dialaka to Nioro (168 km.). The construction will be the responsibility of a qualified private contractor, selected in accordance with acceptable competitive bidding procedures. Project engineering design and overall supervision will be provided by a competent A&E company.

The input to be financed by AID grant will be a \$5,000,000 contribution for procurement of Code 941 and/or local cost goods and services toward completion of the overall project. It is currently anticipated that this contribution will finance (1) \$1,200,000 for the final engineering design, including the development of specifications and bid documents for the project, undertaken by a U.S. firm, (2) \$1,900,000 for the supervision of actual construction, also undertaken by a U.S. firm, and (3) \$1,900,000 toward an undivided share of the general construction contract. Details of the project procedures and financing proposal may be found in Section III: Implementation Plans of this project document.

### B. Historical Background to the Project:

In the 1930's, the French colonial administration began efforts to promote development of groundnut cash crop production among the inhabitants of the project zone. A necessary adjunct to that effort was the construction of some form of motorable access into the hinterland from the railroad at Kayes. A rudimentary road was therefore built along the traditional trade routes of the day, roughly equivalent to the alignment indicated in this project proposal. Over time, portions of the road were gradually upgraded with improvement attempts essentially focused on structures to permit passage over major watercourses.

The overall current state of road is very poor. Maintenance is extremely difficult and the existing track is generally impassable

or extremely difficult to travel during the rainy season. The combination of heavy vehicle use and uncontrolled drainage has damaged the few engineered portions of the road severely and in some sections the alignment is virtually non-existent except as a cleared path, or a series of paths.

The road and the region it serves have most recently been cited as having significant investment potential by foreign donors. A regional transport study, (Bamako-Kayes) conducted in 1975, identified the Kayes-Nioro road segment as important to the future development of the northern part of the region and to the success of proposed development projects in the area (IBRD and UNDP 1976). The 1977 analysis of assistance requested by Mali from the United Nations Development Program identified the First Region as being among the most isolated in the country (UNDP 1977). The Permanent Interstate Committee for Drought Control in the Sahel (CILSS) and the Club du Sahel, in their diagnostic review of road maintenance in the Sahel, listed the Kayes-Nioro road as in need of rehabilitation (CILSS/Club du Sahel 1978). In a USAID concepts paper regarding the transport sector in the Sahel, in preparation for the CILSS/Club du Sahel meeting on transport in 1978, the Kayes-Nioro road rehabilitation was cited as representative of the type of road which can achieve "crucial" access for a development zone to major marketing centers. The current TAMS feasibility study has updated and underscored the accuracy of those remarks.

AID interest in the project dates from 1976. A series of AID-sponsored investigations (Sahel Access Roads, Mali First Region Feeder Roads, First Region Integrated Development) led the Mission to submit a PID (Mali Rural Roads Development) which was approved in AID/W on March 20, 1978. If the project implementation (including PP approval for August, 1980) remains on schedule, project construction will be complete by December, 1986.

As the AID contribution to the project will represent only 13.7% of total project costs (design, supervision, construction) it is recognized that a major multi-donor funding effort must be mobilized as soon as possible so as to ensure timely completion of road construction. That funding effort is actively being solicited by the GRM through its own channels and those of the Club du Sahel. In November/December, 1979 the Club initiated discussions with a number of potential donors, including FED, Islamic Development Bank, Abu Dhabi Fund, Kuwait Fund and OPEC Special Fund. Preliminary results have been encouraging and the PP team feels confident that total funding for the project will be located by the end of CY-1980.

## II. PROJECT ANALYSES

### A. Economic Analysis Summary

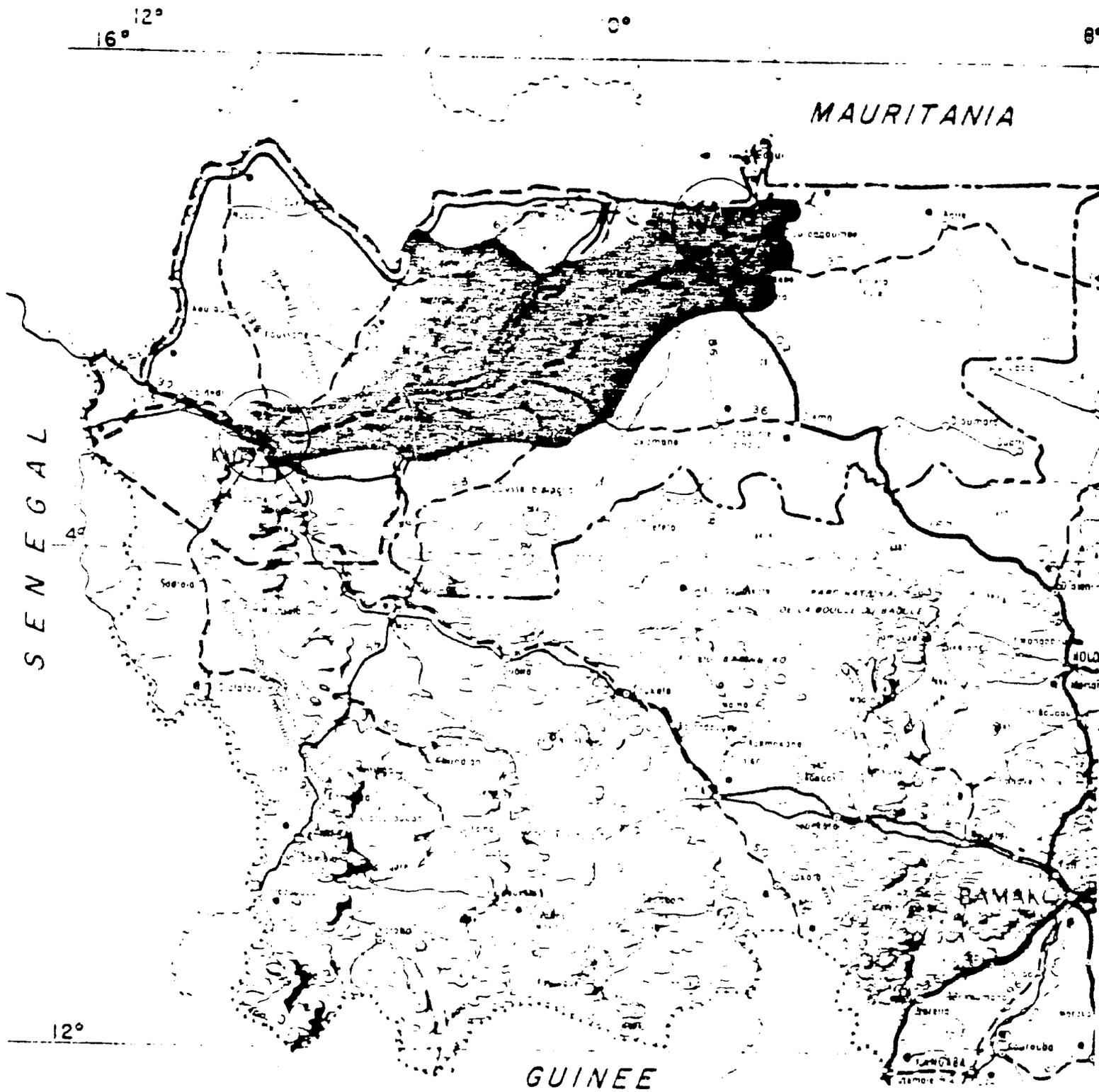
The TAMS feasibility study entered into considerable depth in its analysis of the socio-economic parameters of project feasibility, as will be noted in this section and that on project social soundness. The interested reader is directed to Chapters 7-15 and corresponding appendices (E through I) to more fully appreciate the complexity of their analysis.

#### 1. Description of the Regional Development Context

For its entire length of approximately 250 km., the Kayes-Nioro road lies within the administrative limits of the First Region of Mali. The Kayes-Nioro alignment represents the basic access route between the Dakar-Bamako railway and the primary regional administrative/marketing center of Kayes, and the town of Nioro and the entire northern half of the First Region. Of the 750,000 inhabitants in that Region, probably some 280,000 (or 37%) are effectively cut off with all but the most superficial contact with the modern sector of the national economy, essentially because of the extremely poor state of the Kayes-Nioro road. Map 1 illustrates the regional context within which the project road is situated, including the two principal development projects which lie in its zone of influence: Operation Kaarta and Kayes-Nord Livestock Development.

The area economy impacted by the project can be characterized almost exclusively by its small-farm (2-5 hectare) agricultural production system in sorghum, millet and groundnuts, and its fairly rudimentary transhumant livestock production system. TAMS has noted that livestock accounts for perhaps 55% of regional GDP, but that agriculture employs a much higher proportion of the active rural population.

In an attempt to stimulate greater employment and income-generating possibilities in these sectors, the Government of Mali is undertaking two large-scale, long-term development projects. One is entrusted to the Kaarta Integrated Development Organization (ODIK) and the other, to a small group of public sector agencies coordinated by the Malian Livestock and Meat Organization (OMBEVI). Canadian financial assistance through Canadian International Development Agency (CIDA) will cover the project's first five years of implementation costs totaling \$21,000,000. The project will theoretically impact an area of 35,210 square kilometers and a population of 301,500. The Malian Government's other large-scale



----- LIMIT OF KAARTA/LIMITE DE KAARTA

———— LIMIT OF KAYES - NORD/ LIMITE DE KAYES - NORD

- - - - - LIMIT OF OVSTM/LIMITE DE OVSTM

**■** ZONE OF INFLUENCE/ZONE D'INFLUENCE

investment in the First Region is the Kayes Nord (Guidimaka) Pastoral Area Livestock Development Project, currently being implemented under a \$15,000,000 agreement with the Government of Saudi Arabia. It covers 15,000 square kilometers containing a population of about 200,000.

Additionally, a number of other projects sponsored by various international donors and the Government of Mali are presently at various stages of progress within the northern portion of the First Region:

- . USAID project to improve rural health services in Yelimane;
- . an irrigation study of the Lake Magui-Terekole, Kolombine Valleys within the framework of the Operation Vallée Senegal Terekole-Magui (OVSTM), for which a three-year agreement was entered into with a West German firm with a provision for assessing the cost of constructing three small dams and carrying out an anti-schistosomiasis campaign;
- . various studies sponsored by the Organization pour la mise en valeur de fleuve Senegal (OMVS) for aerial mapping in the "cercles" of Kayes and Yelimane;
- . studies done for the once-proposed First Region Pilot Development Project will be used in planning OMVS activities in conjunction with the Manantali and Diama dams.

The improvement of the Kayes-Nioro road and the development projects within the First Region are closely interrelated. The achievement of development project goals will clearly be greatly aided by the presence of an all-weather transportation link.

## 2. Regional Transportation Sector

Transport within the First Region is clearly dominated by the Dakar-Bamako railroad, connecting Kayes and the Region with the rest of Mali. The existence of the railroad since the turn of the century has, in all probability, represented a principal reason why road infrastructure development in the First Region has not received the same attention as it has in the regions of Mali to the east of Bamako. The road network in the First Region is classified as being composed of 862 km. of gravel secondary roads and 2468 km. of low-level feeder roads or tracks. In reality however, the vast majority of these roads are non-engineered alignments which were created by local truckers who wound their

way around major obstacles in their attempt to reach small villages and isolated markets.

The Consultant undertook origin-destination traffic surveys and manual classification counts in October, 1979 to estimate current traffic volumes over the existing Kayes-Nioro alignment. The results of those investigations are noted below, following adjustments for seasonal variations.

Kayes-Nioro Average Annual Daily Traffic (1979)

<u>Road Section</u>	<u>Light Vehicles</u>	<u>Heavy Vehicles</u>	<u>Total</u>
Kayes-Segala	15	20	35
Segala-Dialaka	10	15	25
Dialake-Nioro	7	8	15

Source: TAMS report, Table 9-2

While in the field, the Consultant attempted to quantify the unit operating costs for representative vehicles over the project road. His conclusions, noted below, confirm that substantial savings to transport operating costs could be realized were the alignment to be upgraded from its existing state.<sup>1</sup>

Unit Vehicle Operating Costs (1979)

<u>(\$/km.)</u>	<u>Paved Surface</u>	<u>Gravel Surface</u>	<u>Improved Earth Surface</u>	<u>Existing Kayes-Nioro Road</u>
Light Vehicle	0.0971	0.1410	0.1523	0.2792
Heavy Vehicle	0.1759	0.2425	0.2635	0.4692

Source: TAMS report, Table 9-6

It would be anticipated, therefore, that construction of the road to standards proposed by the Consultant will reduce actual transport cost by 50-65% on a per-kilometer basis.

The transport industry in the First Region is organized into three basic trucking groups: (1) Union Nationale des Cooperatives des Transports Routiers du Mali (U.N.C.T.R.), (2) Office des Produits Agricoles du Mali (O.P.A.M.), and (3) individual private truckers. The vast majority of truckers in the First Region are organized through the U.N.C.T.R.

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<sup>1</sup> Representative vehicles were the Land Rover 109 Station Wagon ("light vehicle") and the Berliet GLR 200 ("heavy vehicle").

In Mali, official truck tariffs exist for the movement of all cargo and agricultural produce. These tariffs were established in 1977 at the following levels in the First Region:

General merchandize	104-MF/T-K
Paddy	84.5 MF/T-K
Cotton	106.6 MF/T-K
Cereals	61.24 MF/T-K

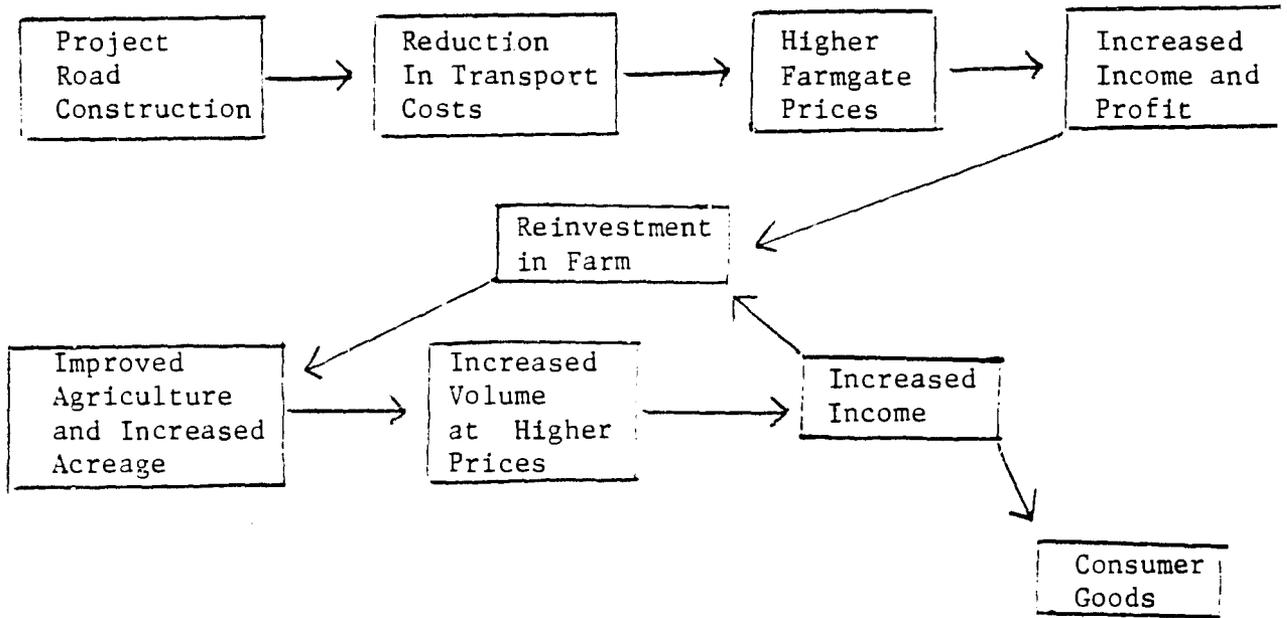
These tariffs are applied for all government transactions. Private truckers, however, often find these tariffs too low and demand higher rates, attaining levels as much as 50-100% higher than the official rates, depending on the quality of the transport infrastructure.

### 3. Analysis of Project Feasibility

a) Methodology: The Consultant undertook a detailed computer analysis of seven different road improvement options. Seven sensitivity tests were also run on each of these options to assess the consequences of changes in the key parameters of the original statistical comparison. These sensitivity tests included:

- modification  $\pm$  20% to construction/maintenance costs
- modification  $\pm$  20% to net revenue calculations
- inclusion of positive impact of road on livestock sector
- opportunity cost of capital at 12%

The benefit stream for these analyses was composed both of user cost savings for non-agricultural vehicles and value-added to agricultural production in the area which can be attributable to the construction of the project road. The value-added benefit stream calculation entailed the development of a regional agricultural production model, which itself was built on a number of assumptions derived by the Consultant from local base data. The basic chain of impacts which permits the Consultant to measure the value-added sum influenced by the road is represented schematically below:



Following its discussions with the Consultant in Bamako and AID/W, the PP team is satisfied that both the methodology and the data utilized in this economic analysis are adequate to permit an understanding of the economic parameters of the project so as to arrive at a reasonable appreciation of project choice feasibility.

b) Conclusions of the Economic Analysis: The results of both reference case and sensitivity test cost-benefit analysis of the various construction alternatives are indicated in the two tables noted below. The first table illustrates the results of all analyses in the absence of an additional 10,000 ha. agricultural production scheme for the Yelimane-Segala area, and the second illustrates similar results if such an investment is realized.

The basic conclusions which can be drawn from these tables are:

(a) with only those agricultural programs firmly programmed for implementation, the optimum investment in economic terms (W5M) is to improve the Kayes-Nioro to the following standards: a double surface treated paved road from Kayes to Dialaka; a laterite/gravel surfaced road between Dialaka and Niror. It would not be feasible to upgrade the existing Dialaka-Yelimane branch road under these conditions.

(b) if an additional 1.25 billion MF is invested in the agricultural sector in the Yelimane-Segala areas, the Dialaka-Yelimane branch road would become feasible and the optimum improvement of the project (W5) would con-

The Sensitivity Tests:  
Without Additional Agricultural Investment  
(1979 prices)

		IMPROVEMENT OF EXISTING ROAD TO:				
		Modified Alt. 2 (W2M)	Modified Alt. 3 (W3M)	Modified Alt. 4 (W4M)	Modified Alt. 5 (W5M)	Modified Alt. 6 (W6M)
Pessimistic Conditions	<u>Sensitivity Tests</u>					
	Limited Maintenance					
	\$ NPV (Million MF)	<u>1143</u>	893	262	701	156
	IRR (Percent)	<u>14.4</u>	12.3	10.5	11.1	10.2
	Lower Net Revenues					
	NPV (Million MF)	<u>(206)*</u>	(389)	(875)	(702)	(1468)
	IRR (Percent)	<u>9.2</u>	9.0	8.6	9.0	8.2
	Higher Costs					
	NPV (Million MF)	<u>1110</u>	932	408	631	(278)
IRR (Percent)	<u>13.2</u>	11.8	10.5	10.7	9.7	
<hr/>						
BASE ANALYSIS						
	NPV (Million MF)	1934	2004	1877	<u>2288</u>	1736
	IRR (Percent)	16.4	14.4	12.8	<u>13.0</u>	11.9
<hr/>						
Optimistic Conditions	Lower Costs					
	NPV (Million MF)	2757	3076	3347	<u>3946</u>	3750
	IRR (Percent)	20.6	17.9	15.8	<u>16.0</u>	14.9
	Higher Net Revenues					
	NPV (Million MF)	4073	4397	4629	<u>5279</u>	4940
	IRR (Percent)	22.1	18.8	16.3	<u>16.4</u>	15.1
	Livestock Impact					
NPV (Million MF)	2153	2406	2427	<u>2896</u>	2395	
IRR (Percent)	16.9	15.1	13.4	<u>13.6</u>	12.6	

\* Numbers in parentheses are negative.  
\$ Net present value.

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sist of: a double surface treated road between Kayes and Dialaka; a laterite/gravel surfaced road between Dialaka and Nioro; a "minimum standard" road for Dialaka-Yelimane.

(c) the results of all sensitivity tests would appear to indicate that the project remains feasible in all but the most pessimistic conjuncture of events, and even then it is perhaps supportable on other than straight rate of return analysis.

Based on its overview of the TAMS Study and the fact that a major agriculture development scheme is not currently planned for the Yelimane area, the PP team has concluded that the project proposal noted in this Section under (a) is economically the most attractive alternative and should be retained as the object of this project design.

## B. Engineering Analysis Summary

The Feasibility Study for the Kayes-Nioro Road includes a detailed analysis of engineering aspects of the project, Chapters 2, 3, 4, 5, and 6. Supporting data for the statements and conclusions noted below may be located in the final TAMS report and annexes.

### 1. Engineering Design

Several design modes were studied to determine the most practical method to use. One method studied was the reinforcement of the Public Works Design Division with technical assistance and materials to allow an in-house staged design with construction to begin as soon as possible. Problems which would be incurred with this method, however, outweighed the benefits. By example, the availability of Public Works staff and facilities are limited by on-going work. The staged design effort was intended to save time, but that amount of time that actually would be saved has been determined to be insignificant. Consequently, a more conventional design mode has been adopted. The Request for Proposal and Terms of Reference will require two contracts--the first for the design and bid package and engineering supervision (subject to other donor financing) and the second for road construction.

### 2. Design Standards and Preliminary Design

The TAMS team reviewed Malian design standards and all prior work and studies done on this road and then developed three different road standards ---CC, BB, and AA. An analysis of the impact of each of these standards was completed on (a) construction costs, (b) maintenance costs, (c) development revenues, and (d) user savings. The recommended road standards were the ones which optimized the difference between costs and revenues/savings. For the first section of road, Kayes to Dialaka, the AA standard has been retained. For the remainder of the road from Dialaka to Nioro-du-Sahel, the BB standard has been chosen.

The recommendation by TAMS of a split-level (i.e. part AA and part BB) design was the result of the comprehensive economic and technical analysis which covered traffic counts, user analysis, projected future traffic levels and maintenance costs. Above Dialaka a paved road is not the optimal solution, while below Dialaka it is.

The preliminary design characteristics adopted for each category of road (average for flat terrain) are summarized below:

	<u>Category BB</u>	<u>Category AA</u>
Design Speed - km/h	80	80
Roadway Width - m	5	5
Platform Width - m	7	7
Min. Radius Horizontal - m	240	240
Min. Radius Vertical crest - m	4500	4500
Min. Radius Vertical sag - m	2200	2200
Max. Grade %	5	5
Sub-base Course - cm	0-40	0-40
Base (or Rolling) Course - cm	20	20
Surfacing	-	DBST

The consultant's category AA has a roadway and platform width less than Malian standard A<sub>2</sub>. The consultant's categories BB and CC retain the same platform width as B<sub>2</sub> and C but with wider roadways. For categories AA, and BB a smooth transition (1:4) from pavement slope to embankment slope will facilitate maintenance and improve safety. Width reductions are not expected to have an adverse effect on average travel speed due to the relatively low present and projected traffic volumes. The wider roadway width for standard BB will facilitate upgrading to standard AA in the future.

The following table summarizes normal Malian design standards:

Design Standards of Each Road Category \*

(Malian Standards)

	Dry Season Trail, D	Improved Trail, C	Gravel Road B <sub>2</sub>	Improved Gravel Road, B <sub>1</sub>	Paved Road A <sub>2</sub>	Improved Paved Road, A <sub>1</sub>
Design Speed km/h	--	40	60	80	80	100
Roadway Width m	3	4	5	6	6	6+
Platform Width m	<b>varies</b>	6	7	9	9	9+
Minimum Radius - Horizontal m	--	40	120	240	240	425
Minimum Radius - Vertical crest m	--	500	1600	4500	4500	10,000
Minimum Radius - Vertical sag	--	700	1500	2200	2200	3000
Maximum Grade %	--	8	7	6	6	5
Sub-base course cm	--	--	0-20	0-25	0-25	0-25
Base (or rolling) Course cm	--	<b>min.</b>	10-20	10-25	10-25	10-25
Bituminous Surfacing	--	--	--	--	DBST	DBST

\* These are average standards for flat terrain

Source: TAMS Report, Table 3.1

The differences between TAMS standards and the normal Malian Road Standards were due to cost, maintenance and safety considerations and were to facilitate future up-grading of the BB road to AA standards. The GRM has accepted these standards as experimental deviations from their own. They did recommend that TAMS's original proposal of a five-meter wide pavement for AA standard be increased to six-meters and this will be considered during final design.

Normal Malian load capacity, sight distance, speed clearance, signaling and other design characteristics will be used in the final design unless the selected design engineering firm can find major deficiencies.

The TAMS preliminary design includes alignment plans of the entire road plotted on 1:50,000 scale aerial photos. Included is a station by station chart showing the following information:

- Terrain Type (Flat, Rolling Mountainous, etc.)
- Estimated Road Profile Grade (%)
- Estimated Height of Fill or Cut
- Estimated Sub-base, thickness
- Base Thickness
- Existing Drainage Structures to remain
- New Drainage Structures Required

TAMS recommends refurbishing existing bridges as well as the construction of several additional pipe and box culverts, and fords in certain locations.

### 3. Construction Mode

As with the design mode, the phasing of construction was studied. The execution of several different contracts was considered to enable work to start sooner and to make it more likely that smaller contractors in Mali could compete. It has been decided, however, to award two contracts at most and preferably one, demanding that contractors mobilize adequately to complete work in a minimum amount of time.

### 4. Road Maintenance

The maintenance capability of the Ministry of Public Works is one of the key issues of this project. The TAMS team studied this issue in depth and found much to be desired. Chapter 6 of the Feasibility Study describes the existing road maintenance system and notes its deficiencies. It also describes planned improvements in maintenance capabilities and makes specific recommendations for improving capability in the First Region and especially for the Kayes-Nioro Road. The study included cost estimates for maintenance equipment and the operating costs

necessary for different road standards. The key to achieving sufficient highway maintenance capability is the Fourth World Bank Highway Program. TAMS studied the program and concluded that if it is implemented successfully, most future First Region road maintenance requirements would likely be satisfied without further outside assistance. In any case it is a reasonable scenario that the complete implementation of the IBRD Fourth Highway Project will assure adequate maintenance of the Kayes-Nioro Road at least until the year 1990. After that time it is entirely possible that funding problems for repair and replacement of equipment and materials may reduce the level of maintenance to less than adequate. However, a sensitivity analysis anticipating this scenario has shown that even with limited maintenance after 1990, the road will yield a satisfactory rate of economic return. Also a Condition Precedent concerning maintenance will be included in the Grant Agreement in order to assure that the GRM's commitment is adequate ( see Part V.).

#### 5. Project Costs and Financial Plan

The cost estimates in the TAMS study (Chapters 4 and 5) are adequate for PP and 611 (a) purposes. A detailed engineering analysis of unit costs was prepared by TAMS during the study. The unit costs were then applied to quantities estimated on the basis of the preliminary designs for each type of road standard. The total cost was estimated at \$39.9 million over six years including design, supervision, construction and inflation. The final engineering design will include a detailed and confidential engineer's estimate of road costs which should be within plus or minus 20% of presently estimated project costs, and within plus or minus 10% of the low bid.

#### 6. AID Funds

At the completion of the Draft Report on the TAMS Feasibility Study of the Kayes-Nioro-du-Sahel Road, a review was made of several AID funding options. It was recognized that it would be possible but unlikely for a U.S. construction firm to be interested in the project. This was particularly true in light of the relatively small percentage of actual project construction expenses to be provided by AID vis-à-vis other donors and resulting impossibility of tying construction funding to U.S. source/origins. On the other hand, it was quite conceivable that U.S. firms and possibly some from Code 941 countries would be interested in the engineering design and supervision components. It was concluded that these were the areas for a logical application of AID funds, and also will give AID a leadership role among the donors. The remaining portion of AID's

five million dollar grant, though estimated at only 4.7 percent of the construction cost, will provide "seed money" toward interesting other donors in the co-financing of the project.

Also, in applying the method of construction and financing proposed in the Implementation Plan of this PP (III, A), the use of AID funds for construction would satisfy AID's and the USG's legitimate interests in source/origin procurement.

#### 7. Other Donor Funding

Although other donors have not yet been clearly identified, several have expressed interest. Furthermore, the GRM has assured AID that they are taking and will take all necessary steps to secure required funds. It is the position of USAID/Bamako that work under the project should begin as soon as possible; by beginning the project AID will be assuring potential donors of our and the GRM's commitment to the project. Beginning now will also place AID in a leadership role in the eventual consortium of donors. Two Conditions Precedent are recommended to assure that the GRM's commitment and success in seeking and securing other Donor Funding is sufficient (see Part V).

#### 8. GRM Contribution

Although GRM is not in a position to make funds available for the actual design or construction contracts, their contribution to the project is important to its success.

The Ministry of Public Works and Tourism will provide staff time to assist in project management, and together with other Ministries (e.g. Plan, Foreign Affairs) will be principal actors in consolidating and coordinating other donor participation.

It is conceivable that one or more other donors may themselves demand funding participation by the GRM. However, the PP team and USAID would advise against this course. As stated in the PID, and as is especially true today, the GRM is in a very untenable financial situation. Mali is one of the poorest of the RLDC's (Relatively Lesser Developed Countries) whose 25% funding participation requirement is automatically waived and whose substantial commitment to the project would possibly present an unduly heavy burden to the already shaky Malian economy.

One factor stands out, despite all this, as a reason for optimism concerning at least one sector of the Malian financial picture and a reason for proceeding with the project; that is, the upcoming implementation of the IBRD Fourth Highway Project

should considerably improve Mali's road maintenance capabilities. The IBRD's proposed Fourth Highway Program (for road maintenance) includes a condition of effectiveness which requires that the GRM's Road Fund, which provides financing for routine and heavy road maintenance as well as for GRM contributions for new road construction, be made liquid.<sup>1</sup>

The IBRD contends that maintenance holds a position of primary importance before any construction of new roads. If AID demanded a GRM contribution to the Kayes-Nioro Project it would be from this Road Fund that the money would be drawn--to the obvious detriment of the IBRD project and to the detriment in sum of the Malian transport and infrastructure sector as well.

#### 9. Financial Summary and Financial Plan

The attached Financial Summary Chart breaks down project disbursements by component, fiscal year, source of funds, and foreign exchange versus local currency costs. It should be noted that the breakdown in local currency and foreign exchange for construction are estimates based on an overall ration of 1:3 and may change depending on which commodities are attributed to AID's share of each payment by the contractor (see Section III, B). These may all be attributed to local cost items or to 941 source/origin equipment at any ratio.

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<sup>1</sup> Currently, the road fund consists almost entirely of Postal Checks for which cash reserves are almost non-existent.

FINANCIAL SUMMARY CHART\*  
 CURRENT PRICES, THOUSANDS OF DOLLARS (\$000)  
 KAYES-NIORO DU SAHEL ROAD PROJECT (688-0212)

FY81 COMPONENT	AID			OTHER DONORS			GRM			SBTL		
	FX	LC	T	FX	LC	T	FX	LC	T			
Design	300	0	300	0	0	0	0	0	0	300		
Supervision	0	0	0	0	0	0	0	0	0	0		
Construction	0	0	0	0	0	0	0	0	0	0		
TOTAL	300	0	300	0	0	0	0	0	0	300		
FY82 COMPONENT												
Design	900	0	900	0	0	0	0	0	0	900		
Supervision	0	0	0	0	0	0	0	0	0	0		
Construction	0	0	0	0	0	0	0	0	0	0		
TOTAL	900	0	900	0	0	0	0	0	0	900		
FY83 COMPONENT												
Design	0	0	0	0	0	0	0	0	0	0		
Supervision	460	0	460	0	0	0	0	0	0	460		
Construction	88	30	118	1826	609	2435	0	0	0	2553		
TOTAL	548	30	578	1826	609	2435	0	0	0	3013		
FY84 COMPONENT												
Design	0	0	0	0	0	0	0	0	0	0		
Supervision	495	0	495	0	0	0	0	0	0	495		
Construction	628	209	837	12919	4306	17225	0	0	0	18062		
TOTAL	1123	209	1332	12919	4306	17225	0	0	0	18557		
FY85 COMPONENT												
Design	0	0	0	0	0	0	0	0	0	0		
Supervision	545	0	545	0	0	0	0	0	0	545		
Construction	398	132	530	8185	2728	10913	0	0	0	11443		
TOTAL	943	132	1075	8185	2728	10913	0	0	0	11988		
FY86 COMPONENT												
Design	0	0	0	0	0	0	0	0	0	0		
Supervision	600	0	600	0	0	0	0	0	0	600		
Construction	161	54	215	3314	1104	4418	0	0	0	4633		
TOTAL	761	54	815	3314	1104	4418	0	0	0	5233		
TOTALS												
Design	1200	0	1200	0	0	0	0	0	0	1200	0	
Supervision	2100	0	2100	0	0	0	0	0	0	2100	0	
Construction	1275	425	1700	26243	8748	34991	0	0	0	27518	9173	
TOTALS	4575	425	5000	26243	8748	34991	0	0	0	30818	9173	
GRAND TOTALS			Design	1200								
			Supervision	2100								
			Construction	<u>36691</u>								
				<u>39991</u>								

\*Includes all physical and price contingencies; inflation calculated at 10%/year compounded.

### C. Social Soundness Analysis

The TAMS Kayes-Nioro Road Feasibility Study contains a detailed social analysis (Chapter 12 - TAMS report) to which the reader may refer for a thorough examination of social issues. The remarks which follow should therefore be considered complementary rather than exhaustive.

#### Historical Perspective

The area through which the present road passes has known trade and empire-building over many centuries. Arab authors have described the wealth and power of the Ghana Empire which, until its defeat by the Almoravids and subsequent disintegration into smaller Soninke kingdoms, ruled the western Sudan for several hundred years up to the end of the eleventh century. From the thirteenth to the sixteenth centuries the Mali Empire, succeeded by the Songhai Empire, ruled over these vast areas. The breakup of the latter was followed by the rise of the Bambara states of Segou and Kaarta. The kings of Kaarta located their various capitals in such towns as Yelimane, Koniakari, Nioro, Mourdia, and Dioka. The mid-nineteenth century saw the jihads of Al Hadj Oumar Tall and his followers who ravaged the lands from Kayes to the Bandiagara plateau until the French general Archinard inflicted a final defeat on Amadou Tall, son of El Hadj Oumar, at Korikori near Bandiagara in April 1893.

During the periods of warfare in what now constitutes northwestern Mali, there were vast displacements and migrations of population. The slave trade sent Sudanese in bondage across the Atlantic to the Americas and across the Sahara to North Africa, the Arabian peninsula, and as far as present-day Turkey, home of the Ottoman rulers. Testimony to the changing demography can be seen in the works of the medieval Arab authors, such European explorers as Bazy, Park, and Dochart, and finally the officers of the French colonial army--Faidherbe, Mage, Borgnis-Desbordes, Galliéni, Frey, Archinard, Delafosse. That the commercial fortunes of peoples rose and fell with the flood and ebb of conquest, peace, trade, more conquest is undeniable. The turbulent eras that followed the breakup of Mali and Songhai, the defeat of the Bambara and others by the Tukolor destroyed entire towns and gave birth to new ones. Ethnic groups mingled and intermarried, blurring distinctive genetic pools (if indeed pure distinctions ever existed).\*

What were the trade goods of yesteryear? A partial list would include skins and hides, wool, beeswax, ivory, rice, millet, peanuts, shea butter, gum arabic, rubber, ostrich eggs and feathers, wood, cotton, woven cloth, gold, dates, and of course slaves. These were exported items and the list doesn't include the many dried foodstuffs and spices that were and still are traded, nor does it include livestock traded on the hoof.

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\* Rokiaton N'Diaye Keita, Kayes et Le Haute Sénégal, Volume III, Bamako: Editions Populaire, 1972

Some of the imports were tools, tissues and linens, coppers, salt, sugar, beads, horses. Today they include various manufactured goods, foodstuffs, and petroleum.\*

The years immediately after independence brought about a decline in the area's trade for several reasons. First, mother France no longer subsidized the important local peanut crop. Second, the break-up of the short-lived Mali Federation resulted in a three-year severance of the rail links between Mali and Senegal. Third, the Keita regime adopted the Malian franc as the official currency which quickly became inconvertible and brought on futile attempts at strict currency controls. The Keita government's socialist attitudes toward private commerce thus effectively forced the local merchants to invest their capital elsewhere, notably the Ivory Coast. What government policies did to agricultural production is also clear: First Region peanut commercialization dropped from 90,000 tons in 1958-59 to 30,000 in 1966-67; cotton production was 1400 tons in 1962-63 versus 20 tons in 1967-68; in 1961-62 millet production was 150,000 tons as opposed to 88,000 in 1968-69.\*\* The latter part of the decade was the beginning of the drought years.

In spite of all these problems, trade is picking up once again. The government, following the military coup in 1968, has eased its restrictive policies and France now guarantees the convertibility of the Malian franc. One can see the physical evidence in Kayes that merchants are beginning to repatriate some of their capital to invest in housing and shops in Kayes, in road transport, and in improved housing and services in the smaller villages. Private citizens are contributing their monies to have mosques, schools, dispensaries, and maternity centers constructed in their villages and in some cases are even supplying various government agencies with vehicles with which they might better serve their populations. Malian workers in France have also formed agricultural cooperatives, have talked the French government into providing intensive agricultural training to them, and have returned to Mali with all their overseas earnings invested in modern agricultural equipment.

Though the Kayes-Nioro area is considered to be ever-deficient in grain production, much grain continues to flow across the Malian, Mauritanian, and Senegalese borders. The existing road, even in such poor condition, facilitates this trade. The road is furthermore an important commercial link between the Mauritanian hubs of Kiffa, Tamchakett, Aioun-el-Atrouss, Nema, and Oualata and Nara, Nioro, and Kayes in Mali. The town of Sandaré, about mid-way between Kayes and Nioro, is a crossroads for trade between Mali, Mauritania, and Algeria and is an overnight stop for trucks of Algerian registry bringing goods into Mali.

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\*J. Spencer Trimingham, A History of Islam in West Africa (London: Oxford University Press, 1970).

\*\* Rokiaton N'Diaye Keita, Kayes et Le Haute Sénégal, Volume III, Bamako: Editions Populaire, 1972.

### Socio-cultural Perspective

The population to be served by improvement of the road consists of several different ethnic groups. The Soninke (or Sarakole), Kagoro, Diaward, Khassonke, and Bambara form part of the extensive Mande group of West Africa. These are the sedentary agriculturalists who inhabit and cultivate those areas along the Senegal River and its branches--the Kalakoro, the Dialabou, the Terekole, the Korigou, and the Kolinbiné. It is the river system which provides the water necessary to sustain sedentary life among these peoples. Social structure, customs, and traditions are similar among these groups. We may, however, differentiate the Soninke from the others because of their long-standing acceptance of Islam. Religion, it is said, was an important unifying factor in implementing the long distance trade practiced by the Soninke.\* These people continue to be long distance traders, travellers, and workers. Substantial numbers of Soninke men work in France, the Ivory Coast, and elsewhere and regularly send money home via postal mandate to their families and relatives.

Sedentary villagers grow rain-fed crops during their short rainy season of June through August. Food crops consists of millet, sorghum, rice, and corn. A second crop season begins when the recession of the river flood begins and villagers plant to take advantage of the moisture retained by the flooded areas along the waterways. Besides the food grains, farmers grow onions, tomatoes, beans, earth peas, okra, melons, sweet potatoes, various kinds of gourds, tobacco, and dah. Some portion of these crops are commercialized but part is always retained for home consumption.

Much of the cultivation is accomplished with short-handled hoes and picks of various blade sizes, but plow technology is also well known in the area. Plows are pulled by oxen, horses, or donkeys, depending on soil conditions. Not everyone, however, has the financial wherewithal to be able to buy plows and draft animals. Nor does everyone who has the means necessarily want to invest in agricultural inputs because of the unsure return on investment due to unfavorable climatic conditions, unrewarding producer prices, and difficult and expensive transportation. It must be mentioned, though, that official producer prices in Mali are lower than those of Senegal and Mauritania and of course free or parallel market prices are much higher. It is therefore difficult to accurately evaluate farmers' motivation to invest in ag inputs, but we can nonetheless conclude that investing in cattle remains the safest farmer hedge against food and other needs.

The Peul and Tukolor traditionally are more partial to raising livestock than crops. We might justifiably describe three livestock-raising systems in the area traversed by the road: transhumant, semi-transhumant (or semi-sedentary), and sedentary.

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\*Nehemia Levtzion, The Differential Impact of Islam among the Soninke and the Manding; Conference On Manding Studies/Congres d'Etudes Manding; School of Oriental and African Studies: London, 1972.

Under the transhumant system, herds moved northward in the Sahel as the rains begin to pass the season grazing the northern plains, locating natural salt licks, and remaining relatively free from the threat of debilitating insects, particularly the tse-tse fly. The northern sojourn removes cattle from cultivated areas and therefore removes or lessens the threat of crop damage by animals. At the same time, the southern pastures are preserved to provide some forage to get the herds through the dry season, for as the rains in the Sahel cease and surface water dries up, the herders move the cattle back south to pass the dry season watering along one of the branches of the Senegal river system. In the cercles of Kayes and Yelimane, it is around the series of intermittent lakes known as the Magui complex. The forested area of the bend in the Baule river will be the dry season grazing area for cattle from the cercles of Nioro and Nara (some). Once the rains again approach, the process repeats itself.

The semi-transhumant system is less extensive. Some herder owners may send their cattle on the northern leg of the transhumance but they will return to the home village and pass the dry season nearby. The northern sojourn, again, preserves southern pastures and removes the animals from insect-infested areas. The herds may not move at all if cattlemen learn that the rainfall in the Sahel is insufficient and grass and surface water is lacking.

The sedentary routine is to hire Peul herders who pasture, water and guard your cattle for a fixed period of time and contracted for a certain amount of money, milk, grain, or calves. The herds may move out of village corrals to pasture and water during the day and be returned to the corrals at night. This system provides one advantage the transhumance does not--it allows the gathering of manure which is then spread in fields or composted. A variation on this sedentary system is that in which the Fulfulde herder(s) moves the cattle in a radius near the village but never approaches it with the herds as long as the crops are growing. This presupposes having adequate grass and water near the village on a year-round basis. This latter system is common to Bambara farmers and to a lesser extent Soninke and Khassonke, all of whom tend to want to be able to see their cattle when they want to, for various reasons.

For both agriculturalists and herders who also raise crops, cattle represent savings and a hedge against hard times. Of course, herders trade their animals for grain, and the farmers vice-versa. When the normal market transactions are disrupted by natural disaster or other calamity, grain and cattle prices tend to be inversely related, i.e., cattle prices fall when there is a shortage of grain and rise when there is an abundance.

Cattle, considered as capital, are a relatively safe investment which reproduce and which are inflation-proof since rising prices are followed by increased market values for cattle. However, as the need arises--for money, for marriage celebrations, housing improvements,

education, taxes--cattle must be sold. The farmer or herder thus chooses which head he will sell. If these are sold to one of the cattle merchants who work the area, the cattle may end up being trekked to Bamako where they will be sold for local consumption or for export to one of the neighboring coastal countries.

#### Role of Women

Work within the village is organized by age and sex division of labor, with specific tasks assigned to men and women varying from one ethnic group to another. Men are most likely to be responsible for providing grain for the family while women are more frequently responsible for production of vegetables and spices for making food sauces. This production is important nutritionally since it provides most of the proteins and vitamins to complement the basic starch staple. Women may also raise grain but this is not their primary responsibility. Women work on common fields with men and cultivate their own fields. The produce from a woman's fields is considered her own and if there is a surplus, she may sell it and dispose of the income.

In some villages, women are active in trade and in the production of items for sale. A number of village women are engaged in trade exclusively. They often travel long distances over the road to sell such items as tomatoes, onion, okra, mangos, and ladle gourds. They return with fruit, spices, cloth, peanut oil, shea butter, black pepper, tea and sugar. In Sandare, for example, young women take onions to sell in Kayes and buy cloth and cooking utensils which serve as their dowry. In Segala, women take cloth they have dyed to sell in Kayes and return with indigo and fruit to sell in Segala. Reciprocally, women from Kayes will market products in local villages and return to Kayes with dried okra, ladle gourds, bitter tomatoes, and onions. Thus the trade is two-way, i.e., no woman (or man for that matter) engaged in trading returns empty-handed. Goods are sold at one end and the money re-invested in other goods to sell.

#### Impact Perception/Participation

Not all villages which will be served by the road have been visited by TAMS or Mission personnel to ascertain the benefits that villagers perceive will result from an improved road. Nonetheless, the nine visited by the TAMS group together with many others visited by the Mission anthropologist are considered to be representative of the rural dwellers in the area. People, with the exception of those in one village south of Nioro whose interests lay in the Bamako-Nioro road, were unequivocally positive about the road improvement. The only sour note which enters is the oft-heard complaint that words are not acts. Meaning that the road improvement has been talked about for years but nothing has been done. Still, people remain hopeful and want the work to get started.

The villagers frequently described their region using the French word "enclavé". Their area was cut off, isolated from anything but itself

during the rainy season of the year and a long, arduous journey at other times. Benefit perceptions of an improved road focused around these principal themes:

- . Better access to medical care.
- . Ease in marketing products, buying goods and having goods available, particularly viewed as beneficial to women who participate in commerce.
- . Possibility of selling different types of agricultural produce, especially fresh produce and milk and butter, which now spoils, and of obtaining better materials and farm implements.
- . Lowered costs for transport, vehicle repair and fuel with the likelihood of lowered costs for goods purchased and more profit (or higher prices) for goods sold.
- . Savings of time.
- . Improved comfort of travel for sick and old persons.
- . Visiting relatives with greater ease and frequency.
- . Investment in vehicles, a more worthwhile expenditure since they wouldn't be damaged so quickly.
- . Transport of sheep and goats by truck.

A variety of comments made by villagers is listed by village in Appendix F of the TAMS Feasibility Study and illustrate specifically the readiness of villagers to express the number of ways they could use the road to improve their lives.

The rural participants welcome an improved road; their motivation to participate can be seen in their stated desires to have better access to markets, to improve their economic state, and to improve the quality of their lives by access to services. Since people already make long journeys on the existing road, the road and its use will not be a new innovation requiring villagers to alter basic values. Rather, the road feeds into the values, social structure, and organization of communities, particularly those of the Soninke, already renowned as traders and merchants.

From the vantage point of those who use the road to deliver services to the rural population, an improved road is also welcome for it would aid them in accomplishing their goals. It will permit agencies of the GRM to carry out their educational, health, and cultural programs more effectively and at a lower cost. The time lost in travel and the extra expense of fuel, vehicle maintenance, and vehicle repairs caused by a road in extremely poor condition impose extra burdens on public services and often result in the premature destruction of scarce government vehicles.

Rural participants sampled were genuinely interested in increased marketing of products, in the availability of more equipment, and in ways of reducing the destruction to crops. Respondents were especially enthusiastic about marketing perishable vegetables and fruits. Villagers are likely to respond to the road's economic incentives since these

are largely consistent with their social values. A particular caveat (which does not undermine the road's sociocultural feasibility) is, however, in order. One of the major intentions of government and donor agency development programs for the Kaarta region surrounding Nirodu-Sahel is to increase production and marketing of cereal grains and livestock. For the Kayes Nord project serving the region west of Kaarta, livestock development is the major goal. Village investigations revealed that farmers were somewhat unenthusiastic about increased grain production to be sold at controlled government prices. They did not yet see cattle production as a form of income generation. The traditional role of cattle for investment and savings is still very important in these isolated village economies but is open to change and evolution.

The point is that opening the road for rural dwellers will make government more accessible to them but it will also make them more accessible to government. It may make government control of the commercial networks easier and thus render parallel market commerce too risky. The final result could be a worsening of the terms of trade for people adjacent to the road. We feel, though, that this possibility is already known and understood by everyone.

#### Spread Effects of the Project

The most immediate application of the spread effects concept to the Kayes-Nirodu road regards construction and maintenance. As a foreign contractor will be responsible for construction, the ability to construct similar roads is not imparted to the Malian construction industry. Effectively, since a road deteriorates and disappears without maintenance, the way to increase the spread effects of the project itself is to amplify the capacity of the Ministry of Public Works to maintain roads. Such a program will be sponsored by the IBRD beginning in 1981 in support of DNTP maintenance works and equipment.

Other spread effects facilitated by the road related to increased opportunities for the diffusion of ideas, technology, and services. By connecting the administrative centers of Kayes and Nirodu-Sahel, the road will increase contact among health and education staff and others engaged in the delivery of public services with the populace under their jurisdiction. Easier access will also permit enhanced communication among the agents of the existing development projects in the road's zone of influence (Kayes-Nord, Kaarta, O.V.S.T.M.) and the proposed USAID First Region Pilot Development Project. Those engaged in development projects and service delivery have rural clientele whom they serve to whom they can communicate the information, ideas, or technology to which they have been exposed. By making contact less difficult and less time-consuming and by removing the barriers to frequent travel, the road will permit the spread of knowledge. The populations themselves who participate in development projects and benefit from service delivery also will use the road and will likely

communicate with others regarding the results or benefits of their participation. This type of travel and desire to travel more should facilitate the spread of techniques and knowledge as well as products.

#### Benefit Incidence

Two principal types of economic benefits will accrue from an improved road: value added benefits and user cost savings (See Section II, A of PP. Economic Analysis Summary). The principal beneficiaries of value added benefits are farmers and transporters or merchants, i.e., those who use the road to transfer products. Others who use the road, such as visitors, people seeking medical help, workers, and government personnel who use the road to distribute supplies or deliver services, will be the beneficiaries of user cost savings.

The TAMS Feasibility Study claims that the benefits of reduced transport costs, i.e., the savings achieved by transport of goods on a better road, will be distributed between the rural farmer and the transporter such that 80% of the savings will go to the farmer and 20% to the transporter. The farmer will benefit from the savings in the form of higher prices received at the farm gate, that is, a higher profit and greater income than was possible before the road was improved. The transporter will enjoy an absolute increase in profit and an increased profit ratio also largely because of this significant reduction in transport costs. (See Figure 10:1 of TAMS report).

#### SUMMARY

1. The majority of benefits to be derived generally fall within the domain of access to resources and opportunities. This access results in a higher distribution and amount of incomes to the rural farmer and the farm family. The project will not limit or deny access to any group.
2. Employment benefits are not directly attributable to the road project. In the long run increased employment in marketing and merchandising as the volume of production expands can be anticipated. No employment will be eliminated because of the project. To the extent that the road provides for greater use of labor-replacing devices in agriculture, the existing constraint of available labor on the expansion of farm production will be lessened.
3. Rural displacement, migration and urbanization are discussed in detail in the TAMS Report. No other social costs nor social benefits are anticipated in this regard since the road project will not alter the more basic changes occurring in Malian society. The road may somewhat stem the exodus to urban areas, but such a change cannot be assumed.
4. Changes in power and participation between the target group of rural farmers and other groups may occur as farmers gain more income and participate more widely in the regional economy.

5. Finally, when the Manantali dam is completed and cheap electricity is regularly available, such cities as Kayes and Nioro might be expected to develop light industry or food processing capabilities, thus providing regular and stable markets for rural cattlemen and agriculturalists.

#### D. Administrative Feasibility

The implementation proposal retained for this project was deliberately chosen for simplicity and ease of administration. The contracting out of design, supervision and construction responsibilities will require the interested parties essentially to draw up terms of reference and provide general supervision and occasional review of project progress, as is noted below.

1. The Grantee: As the grantee, the GRM will be ultimately responsible for basic policy decisions, arbitrage among the various donors to the project and formal contracting for A&E, supervising and construction services. Responsibility within the GRM for these actions will lie with the Director General of the Ministry of Public Works in Bamako. It is expected that this office will liason closely with AID and the other donors at every stage of the project development process.

2. AID: AID/Bamako will coordinate all USG involvement in this project through the local AID direct-hire engineer, who will assume all responsibilities as project manager. His basic duties will include drawing up the draft TOR for AID-financed A&E services, the planning and follow-through on all AID-related documentation for the project and occasional site visits on the verification of work progress. It is expected that some occasional supporting assistance may be requested of REDSO/WA or AID/W technical and contracting personnel. The Grant agreement, as well as the A&E and construction contracts, will include the usual AID rights for approval of contracts, subcontracts, changes and revisions and the right to inspect all books and records. Finally, the project manager will be responsible for appropriate execution of all audits and evaluations as deemed appropriate.

#### E. Environmental Concerns

The Initial Environmental Examination whose facesheet is attached, was prepared in September 1977. It recommended that a Negative Determination be made, indicating that the project road would have little or no adverse effects on the local environment. During the preparation of the road feasibility study undertaken by TAMS, a detailed Environmental Assessment was undertaken in accordance with AID regulations (see Chapter 13, TAMS Feasibility Study). The EA concluded that no adverse or irreversible impact would effect the physical or human environment as a result of the project. The findings of the EA were reviewed and accepted by AID/Washington on June 16, 1980.

INITIAL ENVIRONMENTAL EXAMINATION

Project Location: Country of Mali, West Africa, in the First Region administration area.

Project Title: Mali Rural Roads Development

Funding: FY 1979 \$11.6 million, of which \$9.9 million funded by USAID.

Life of the Project: 20 years

IEE Prepared by: R. Dudley Chief Engineer, REDSO/WA  
J. Hradsky, Project Officer, REDSO/WA  
Date: September 10, 1977

Environmental Action Recommended: Negative Determination.

Concurrence: \_\_\_\_\_  
Country Development Officer  
Date: \_\_\_\_\_

Assistant Administrator's Decision:  
  
Date: \_\_\_\_\_

III. IMPLEMENTATION PLAN

A. Plan and Schedule: The following plan and schedule is proposed for Project Implementation

<u>Implementation Action</u>	<u>Estimated Due Date or Timing</u>
1. GRM-USAID meeting to discuss basic conditions; obligation planning; set-up negotiations; request for expressions of interest (REI), other Donors; etc.	June 25, 1980
2. PP complete and received in AID/W.	July 15, 1980
3. Grant Agreement Draft complete, translated and presented to GRM.	July 20, 1980
4. REI complete and approved by GRM.	August 1, 1980
5. AID/W approved PP and authorized Project.	August 11, 1980
6. Mission advised of Allotment of Funds.	August 15, 1980
7. GRM advertized REI.	August 15, 1980
8. Final Report of TAMS received by USAID.	August 15, 1980
9. Preliminary RFP translated and presented to GRM	August 30, 1980
10. Prequalification committee designated.	August 30, 1980
11. RFP approved by GRM and complete/ RLA or contract officer visit.	September 30, 1980
12. Grant Agreement signed.	September 30, 1980
13. TAMS report received by other Donors.	October 1, 1980
14. RFP approved by GRM and RLA or contract officer.	November 1, 1980
15. Expressions of interest and prequalification data received --Closing date.	November 15, 1980
16. Prequalifications approved; RFP/TAMS report attached sent to firms.	December 30, 1980

- |                                                                                                                 |                    |
|-----------------------------------------------------------------------------------------------------------------|--------------------|
| 17. Closing date for Proposals                                                                                  | March 1, 1981      |
| 18. Committee Report on Proposals sent to USAID and MTPT.                                                       | April 1, 1981      |
| 19. Proposal approved by USAID and REDSO lawyer.                                                                | April 15, 1981     |
| 20. Proposal approved by Ministry and letters sent to firms.                                                    | May 1, 1981        |
| 21. Negotiation begins between GRM and first firm; USAID and REDSO lawyer present.                              | June 1, 1981       |
| 22. Contract signed.                                                                                            | July 1, 1981       |
| 23. Design Survey begins.                                                                                       | September 15, 1981 |
| 24. Multi-donor/GRM Meeting Final Pledging Session re Bid Documents, Procedures and Donor Consortium Agreement. | March 15, 1982     |
| 25. Engineering Consultant notified as to modification if any.                                                  | April 1, 1982      |
| ***26. Co-financing Agreements signed                                                                           | July 1, 1982       |
| ***27. Draft Final Design and Final Bid or Preliminary Bid Documents received by GRM.                           | July 1, 1982       |
| 28. Final Design and Bid Package approved. Engineering Consultant advertized IFB.                               | February 1, 1983   |
| 29. Bids received.                                                                                              | May 15, 1983       |
| 30. Contract awarded.                                                                                           | August 1, 1983     |
| 31. Mobilization begins.                                                                                        | October 1, 1983    |
| 32. Contractor mobilized.                                                                                       | December 1, 1983   |
| 33. First USAID monitoring.                                                                                     | March, 1984        |
| 34. Periodic USAID inspections (every 3-6 months, etc.).                                                        | -                  |
| 35. Road Construction complete; Reception provisoire.                                                           | December 1, 1986   |

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\*\*\* Critical Decision Point: This step in the implementation plan is the point at which an important Condition Precedent (C.P.)

takes effect. The CP is explained in section five. Here, though the importance of this CP will be emphasized, assurances by the GRM have been made to secure adequate co-financing for the construction component of the project. The probability of securing such co-financing from other donor sources is considered adequate to commence the final design. Nonetheless, to avoid any possibility of long-term disbursement problems AID's financial disbursement to this project has been phased. This CP marks the end of Tranche I; i.e., the completion of detailed engineering design and specifications documents and preliminary bidding documents. If other donor agreements have not been signed or are not forthcoming by this point, remaining AID funds will be deobligated. Other prior implementation steps will demonstrate whether this CP is likely or not to be met; e.g. multi-donor/GRM meetings should have taken place before this juncture to secure and formalize the commitment of continued funding.

It can be noted that AID's intervention need not have been in vain even if the CP remains unsatisfied. The completed design and specifications will continue to be available for use should financing become available. It is unreasonable to keep the additional AID resources obligated beyond this date with no sure means of expenditure.

## B. Procurement Plan

As mentioned previously, AID disbursement for this multi-donor project will take place in distinct tranches: Tranche I: Final Engineering Design, Specifications and Bid Documents; Tranche II (a) Construction Supervision, (b) Payment of an Undivided Share of the General Construction Contract.

For Tranche I and II (a) disbursement will follow AID HB 11, Chapter I for Host Country Contracting of Professional and Technical Services (see preliminary RFP/TOR Annex F).

For Tranche II (b) when multi-donor funding for construction is complete, the AID input will be payment of an undivided share of the general construction contract. Our system of payment will be similar to that used by the other donors and has already been successfully utilized for three multi-donor infrastructure projects in Cameroon (see Transcam III PP, 631-0011). Under this system, our payment of the AID portion of the contractor's regular billing will be contingent upon the contractor's draw-down of Code 941 or local cost goods or services in an amount at least equal to the cumulative sum for which he is requesting reimbursement. His monthly billing for USG payment will therefore be accompanied by satisfactory proof of 941 or local cost drawdown for purposes of attribution of project funds.

It is currently anticipated that the total \$1.9 million AID share of the construction contract will be attributed to local expenses (sand, gravel, wood, labor) incurred by the contractor. In order to encourage Code 941, and especially Code 000 procurement, however, the procurement system established by the PP team has deliberately retained the 941 option. A basic overview of AID procurement guidelines has been provided below in the event that Code 941 goods or service procurement is claimed by the contractor for purposes of attribution.

### 1. Disbursement of Funds:

The construction contractor will submit monthly progress reports to the on-site supervising engineer, who supervises the contractor on a day-to-day basis and maintains his own, separate records. The contractor's monthly report (decompte volume) when received by the resident engineer, will reflect quantities only. The resident engineer will verify the reported quantities and prepares the certificate of payment using corresponding unit prices, any reimbursements or deductions for advances or guarantees along with escalations factors as per the contract's escalation clause. The supervising engineer then will divide up the total value among the various donors on the basis of their proportional share of the total contract responsibilities.<sup>1,2</sup>

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<sup>1</sup> Each donor's fractional share of monthly billing (clef de repartition) will be calculated by dividing each individual donor pledge by the total amount pledged for the contract by all donors (in Malian Franc

This document will be certified correct by the:

- . Contractor
- . General Director, DNTP
- . Supervising Engineer
- . Technical Representative Selected by the Donor
- . Consortium

Finally, the approved monthly bill will be forwarded to the contractor's duly designated bank or banks for payment against project funds by each of the Donors on a timely basis and in proportion to their various pledges.

## 2. Procurement of Goods and Services

As noted previously, for Tranche I and II (a) of this project, responsibility for procurement of design and supervision services will be with the DNTP of the MTPT, with AID guidance and approval as per AID HB 11, Chapter 1. However, it is anticipated that little procurement will be carried out by the contractor. Procurement will be limited to occasional shelf items as defined below.

For Tranche II(b), responsibility for procurement and supervision of construction services will rest with the DNTP through the services of the Engineering firm contracted for the supervision of construction under Tranche II (a) under the guidance and approval of the Donor Consortium.

It is expected that the selected contractor will conduct procurements made for purposes of attribution in accordance with good commercial practices to obtain the lowest possible prices for the best available products. Further, to afford the contractor maximum flexibility to conduct his procurement, it is envisioned that he will use his own established procedures rather than the procedures established by AID for use in project procurement.

### (a) Equipment List

The contractor will not be required to submit an equipment list to AID for review or approval prior to the initiation of procurements. It is expected, however, that the limited equipment to be purchased will correspond to the actual needs of the project and contain only new equipment which is normally eligible for AID financing.

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2 Because of the possibility of exchange rate fluctuations over time or cost overruns in construction, the Grant Agreement will specify that the AID contributions to the project will, in no case, exceed the total amount pledged by the USG at the time of contract signature in terms of the rate of exchange then in effect.

(b) Eligibility

1.) To be credited for attribution all equipment and commodities procured, except for vehicles, must have their source and origin in Code 941 countries or the host country. Vehicles, as defined in AID's eligibility listing, must be of U.S. manufacture only, except as authorized by USAID/Bamako or AID/Washington.

To be eligible for payment, therefore, the contractor will be required to present to the supervising engineer, together with its request for payment, the following documentation:

. Evidence showing that procurement to be credited took place in eligible source countries and that the commodities or equipment procured originated in eligible source countries. (AID's componentry rules must be observed.)

. Evidence, such as suppliers' invoices, showing that the items purchased were new and unused at the time of acquisition.

2.) Shelf Item Procurement

Imported shelf items are goods that are normally imported and kept in stock, in the form in which imported, for sale to meet a general demand in the country for the item; they are not goods which have been specifically imported for use in an AID-financed project.

.Shelf Items Imported from Code 941 Sources and/or Produced Locally - Shelf items are eligible for local costs financing in unlimited quantities up to the total amount available for local procurement under the terms of the project grant agreement authorizing local cost financing if they have their origin in a country included in Code 941 or produced locally.

.Waiver - A waiver of the maximum authorized amount for shelf item procurement is requested, to raise the limit from \$2,500 to \$6,500 per unit or transaction for road construction and maintenance, spare parts, survey equipment and other small, non-major equipment.

-Justification -This waiver is needed to allow the contractor to procure repair parts for heavy equipment on the local market, for Code 899 imports as shelf items are most often above \$2,500 when applicable to road construction equipment and materials. Buying this equipment in the U.S. and having them shipped to Mali can and has caused serious delays in project implementation. High cost repair parts are often available from the local distributors and the raising of the limit to \$6,500 per transaction will permit local acquisition of needed parts, equipment and materials and will also result in a decline in heavy equipment down-time.

. Shelf Items Imported from Non-Free World Sources

Imported shelf items produced in or imported from countries not included in Geographic Code 899 are ineligible for AID financing.

NOTE: The Supervising Engineer will be responsible for verification that the conditions above are met before certifying for payment.

#### IV. EVALUATION PLAN

Since this is a construction project, it will not be difficult to verify achievement of the project outputs - the physical existence of a road, constructed to specified standards, between Kayes and Nioro. The construction contractor will submit monthly progress reports to the engineering supervisor, describing work progress and problems encountered, and overall performance will be measured by a competent AID technician periodically.

Verification that the outputs have achieved the project purpose will be ascertained by an evaluation mission of approximately 3 weeks duration in the second year following project completion. The evaluation team should include an AID or IQC road engineer, a transport economist, a rural development economist and a rural sociologist. The evaluation team should undertake appropriate O-D traffic surveys \*(if not available) and representative village and farm-level survey research so as to better understand the impact of the road on the rural development process. They should also examine the performance of the GRM in maintaining the road and verify, on a post facto basis, the quality of contractor construction and the desirability of engineering design. All base data utilized by the evaluation team can be drawn from the USAID-financed TAMS feasibility study of the road.

The proposed evaluation work plan follows:

##### 1. Baseline Data

-the existing Kayes-Nioro alignment is in extremely poor condition. Vehicles using the road may pass only seasonally and at a high cost. Economic user costs for light vehicles are estimated at 279 MF/km for light vehicles and 469 MF/km for heavy vehicles.

- the level of agricultural production in the project is currently very low. Yields are currently calculated at 650, 500, 750, and 660 kg./ha. for sorghum, millet, maize, and groundnuts, respectively. Cultivation patterns are essentially in subsistence agriculture, located on small farms (1.8-4.5 hectares in size) and oriented to sorghum (33.0%), millet (24.0%), groundnuts (21.2%), maize (7.5%) and miscellaneous (13.3%).

-the project zone is currently in a cereal deficit area. The total deficit for 1979 is estimated at 5,201 tons for sorghum.

-current (1979) average annual daily traffic flows were estimated at 35, 25, and 15 v.p.d. on the Kayes-Segala, Segala-Dialaka and Dialaka-Nioro sections, respectively.

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\* Origin-Destination

## 2. Targets

-construction of 82 km. of AA-standard paved road from Kayes to Dialaka and 168 km. of BB-standard laterite road from Dialaka to Nioro.

-improvement of the reliability, speed and reduction of cost of vehicle transport between Kayes and Nioro.

-lower transport costs subsequent to road construction will be distributed between trucker and farmer in such a manner that the absolute difference between the trucking tariff charged and the cost of operation per ton-kilometer will be about 20-25% higher than was the case on the existing road. The remainder of cost savings will go to the farmer in the form of a higher ex-farm price for his produce. The farmer will then re-invest at least 20% of this additional revenue into extended crop production.

## 3. Progress Indicators

-Construction stage: construction is scheduled to take 36 months from the notice to proceed following contract signature. Construction speed and quality will be monitored on a regular basis by the GRM, AID and other donors.

-Following Completion of Construction:

- (a) annual traffic counts of the Ministry of Public Works
- (b) annual statistical records of agriculture and livestock production of Operation Kaarta and Operation Kayes-Nord.
- (c) annual operating cost and tarification records of U.N.C.T.R.
- (d) annual records of Ministry of Public Works concerning level of maintenance activities over the project road.

## 4. Causative Factors

Failure to achieve any of the above targets will require an investigation into the causative factors:

-Construction Delays

- (a) delays in selection of contractor
- (b) contractor incompetence
- (c) delays in delivery of equipment or materials
- (d) hinderances due to actions or omission of GRM
- (e) improper engineering design or construction supervision
- (f) unforeseen natural conditions or force majeure
- (g) inadequate donor financing
- (h) higher than normal contingencies

-Following Construction

- (a) GRM failed to support adequate maintenance of the project road

- (b) lower vehicles operating costs are not passed onto farmer, either because of fixed GRM transport tariffs or due to lack of open competition in regional trucking industry
- (c) rural development "Operations" fail to receive long-term support of GRM and donors, or fail to become self-sustaining
- (d) unforeseen natural conditions negatively impact on regional rural development efforts

V. CONDITIONS, COVENANTS AND NEGOTIATING STATUS

As was noted in Section III (Implementation Plan) of this Project Paper, disbursement of AID funds under this project will be made in two distinct tranches. The conditions precedent specific to each tranche are noted below under the nomenclature "First disbursement" (Tranche I) and "Additional disbursement" (Tranche II, (a) and (b) ).

In addition to the Standard Conditions Precedent in the Grant Agreement (legal opinion, specimen signatures) the following special CP's will, therefore, be contained in Article V of the Project Grant Agreement:

A. First Disbursement (for engineering design services)

Prior to the first disbursement of funds under the project, or to the issuance of commitment documents with respect thereto, the cooperating country (Grantee) shall furnish to AID, in form and substance satisfactory to AID:

1. An executed contract for final engineering design services for the project acceptable to AID with a firm acceptable to AID.
2. Evidence of multi-donor funding to finance project construction.

B. Additional Disbursement (for engineering supervision and construction)

Prior to additional disbursement under the Grant, or after issuance by USAID of documentation pursuant to which disbursement will be made to finance the goods and services referred to in Part A above, the Grantee will, except as the Parties may otherwise agree in writing, furnish to AID in form and substance to AID:

1. Evidence of a binding agreement between the Grantee and another donor source or sources under which the donor or donors will finance the remainder of the construction costs of the project.
2. An executed construction contract acceptable to AID.
3. An executed engineering supervision services contract acceptable to AID.
4. A maintenance plan for the Kayes-Nioro Road.

**PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK**

Life of Project  
From FY 81 to FY 86  
Total U.S. Funding \$5,000,000  
Date Prepared June 8, 1980

Project Title & Number: Kayes-Nioro Road (688-0212)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Program or Sector Goal:</b> The broader objective to which this project contributes:</p> <p>To upgrade the economic well-being and the quality of life of the rural population located in heretofore isolated areas of the Mallan First Region between Kayes and Nioro-du-Sahel.</p>	<p><b>Measures of Goal Achievement:</b></p> <p>Impact on region of improved transport infrastructure and signs of positive economic and social effect on population of affected villages.</p>	<p>National accounts and statistics by "Operation" indicating economic activity and income by impact area.</p>	<p><b>Assumptions for achieving goal targets:</b></p> <ul style="list-style-type: none"> <li>- GRM will devote sufficient budgetary and human resources to the Kayes-Nioro area development projects.</li> <li>- Donor assistance to Kayes-Nioro zone in FED will continue or "Operation" will become self-sustaining.</li> </ul>
<p><b>Project Purpose:</b></p> <p>To facilitate First Region rural development by removing a major transport obstacle.</p>	<p><b>Conditions that will indicate purpose has been achieved: End of project status.</b></p> <p>a) More efficient transportation of development inputs and marketable production.</p> <p>b) Area development schemes functioning efficiently, attaining goals of raising the level of ag production, economic activity and social well-being in affected villages.</p>	<p>Data collection by area "Operations" on ag production and farmer or herder income levels.</p>	<p><b>Assumptions for achieving purpose:</b></p> <p>Availability of minimum rural road access is indispensable complement to and will stimulate increased ag output (cereals, vegetables, cattle) by facilitating the operational activities of these schemes.</p>
<p><b>Outputs:</b></p> <p>Final engineering design, supervision and construction of Kayes-Nioro Road.</p> <p>Improved road construction and maintenance capabilities of the GRM Travaux Publics.</p>	<p><b>Magnitude of Outputs:</b></p> <p>82 km. Type-Kayes-Dialaka 5-meter wide paved all-weather road.</p> <p>61 km. Type-Dialaka-Sandare 5-meter laterite all-weather road.</p> <p>107 km. Type-Sandare-Nioro 5-meter laterite all-weather road.</p>	<p>Design and engineering specifications</p> <ul style="list-style-type: none"> <li>- Operational records of private contractor.</li> <li>- Inspections by Mission and REDSO engineers.</li> </ul>	<p><b>Assumptions for achieving outputs:</b></p> <ul style="list-style-type: none"> <li>- Construction standards based on real needs of area farmers and herders.</li> <li>- GRM will support adequate maintenance of project road with help of an IBRD contribution to upgrade Mallan Travaux Publics maintenance capabilities.</li> </ul>
<p><b>Inputs:</b></p> <p>a) Construction by private firms following appropriate bidding procedures.</p> <p>b) Commodities</p> <p>c) Technical Assistance/Engineering Design</p>	<p><b>Implementation Target (Type and Quantity)</b></p> <p>AID to contribute \$5 million to the final engineering design, supervision and other services, contingent on equivalent documented proof of Code 941 procurement of goods and services.</p> <p>Multinational donors to contribute balance of funds necessary to complete construction of road (est. \$34.9 million)</p>	<ul style="list-style-type: none"> <li>- AID financing and procurement documents.</li> <li>- Financial and operating records of private contractor.</li> <li>- Multi-donor commitment document and GRM records</li> </ul>	<p><b>Assumptions for providing inputs:</b></p> <ul style="list-style-type: none"> <li>- Private contractor available to undertake construction within anticipated timeframe.</li> <li>- Multi-donor contribution for the construction phase of the project shall be secured by GRM.</li> </ul>

5C(1) - COUNTRY CHECKLIST

Listed below are, first, statutory criteria applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Security Supporting Assistance funds.

A. GENERAL CRITERIA FOR COUNTRY

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1. <u>FAA Sec. 116.</u> Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in consistent pattern of gross violations of internationally recognized human rights?                                                                                                                                                                                                                                               | YES |
| 2. <u>FAA Sec. 481.</u> Has it been determined that the government of recipient country has 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  |
| 3. <u>FAA Sec. 620(a).</u> 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  |
| 4. <u>FAA Sec. 620(b).</u> If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement?                                                                                                                                                                                                                                                                                                                                                            | YES |
| 5. <u>FAA Sec. 620(c).</u> 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  |
| 6. <u>FAA Sec. 620(e) (1).</u> 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  |

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7. FAA Sec. 620(f); App. Sec. 108. Is recipient country a Communist country? Will assistance be provided to the Democratic Republic of Vietnam (North Vietnam), South Vietnam, Cambodia or Laos? NO
8. FAA Sec. 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
9. FAA Sec. 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
10. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? N/A
11. FAA Sec. 620(o); Fishermen's Protective Act, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters, N/A
- a. has any deduction required by Fishermen's Protective Act been made?
- b. has complete denial of assistance been considered by AID Administrator?
12. FAA Sec. 620(q); App. Sec. 504. (a) Is the government of the recipient country in default on interest or principal of any AID loan to the country? (b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds, unless debt was earlier disputed, or appropriate steps taken to cure default? NO
- \* 13. FAA Sec. 620(s). "If contemplated assistance is development loan (including Alliance loan) or security supporting assistance, has the Administrator taken into account the percentage of the country's budget which is for military expenditures, the amount of foreign exchange spent on military equipment and the amount spent for the purchase of sophisticated weapons systems?" (An affirmative answer may refer to the record of the taking into account, e.g.: "Yes as reported in annual report on implementation of Sec. 620(s).") This report is prepared at the time of approval by the Administrator of the Operational Year Budget.\* N/A

\* Revised

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\* Upward changes in the Sec. 620(s) factors occurring in the course of the year, of sufficient significance to indicate that an affirmative answer might need review should still be reported, but the statutory checklist will not normally be the preferred vehicle to do so.) \*

14. FAA Sec. 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
15. FAA Sec. 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 AID Administrator in determining the current AID Operational Year Budget? Not in arrears
16. FAA Sec. 620A. Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism? NO
17. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA? NO
18. FAA Sec. 669. Has the country delivered or received nuclear reprocessing or enrichment equipment, materials or technology, without specified arrangements on safeguards, etc.? NO
19. FAA Sec. 901. Has the country denied its citizens the right or opportunity to emigrate? NO

#### B. FUNDING CRITERIA FOR COUNTRY

##### 1. Development Assistance Country Criteria

a. FAA Sec. 102(c), (d). Have criteria been established, and taken into account, to assess commitment and progress of country in effectively involving the poor in development, on such indexes as: (1) small-farm labor intensive agriculture, (2) reduced infant mortality, (3) population growth, (4) equality of income distribution, and (5) unemployment.

b. FAA Sec. 201(b)(5), (7) & (8); Sec. 208; 211(a)(4), (7). Describe extent to which country is:

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

The GRM is committed to a policy of involving its citizens in the development process particularly as involve small farmer agricultural production and other areas to the extent possible.

It is believed that Mali to the extent possible is responding to its development needs in the food production and storage areas.

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B1b

- (2) Creating a favorable climate for foreign and domestic private enterprise and investment. N/A
- (3) Increasing the public's role in the developmental process. (3) Mali and AID have undertaken a number of projects that involve increasing large numbers of Malians particularly farmers.
- (4) (a) Allocating available budgetary resources to development. (4) (a) Within the context of an extremely poor country, Mali allocates what it can toward development.  
(b) Diverting such resources for unnecessary military expenditure and intervention in affairs of other free and independent nations. (b) Relatively limited money put into military expenditures.
- (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. These are areas of concern for the Malian government.
- (6) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures. Mali takes such actions within the considerable constraints of its resource

c. FAA Sec. 201(b), 211(a). Is the country among the 20 countries in which development assistance loans may be made in this fiscal year, or among the 40 in which development assistance grants (other than for self-help projects) may be made?

YES

d. FAA Sec. 115. Will country be furnished, in same fiscal year, either security supporting assistance, or Middle East peace funds? If so, is assistance for population programs, humanitarian aid through international organizations, or regional programs?

NO

2. Security Supporting Assistance Country Criteria

N/A

a. FAA Sec. 502B. Has the country engaged in a consistent pattern of gross violations of internationally recognized human rights? Is program in accordance with policy of this Section?

b. FAA Sec. 531. Is the Assistance to be furnished to a friendly country, organization, or body eligible to receive assistance?

c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

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e. FAA Sec. 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?

f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

3. Project Criteria Solely for Security Supporting Assistance

FAA Sec. 531. How will this assistance support promote economic or political stability?

4. Additional Criteria for Alliance for Progress

N/A

[Note: Alliance for Progress projects should add the following two items to a project checklist.]

a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?

b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPEIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?

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5C(2) - PROJECT CHECKLIST

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY.. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT.

1. App. Unnumbered; FAA Sec. 653(b)

(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project; Through annual Congressional presentation.

(b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure plus 10%)? YES
2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, 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 U.S. of the assistance? YES
3. FAA Sec. 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 the assistance? N/A
4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; see Fed. Register, Vol 38, No. 174, Part III, Sept. 10, 1973)? N/A
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project? YES

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## A.

6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate?
7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project 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.
8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
9. FAA Sec. 612(b); Sec. 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 U.S. are utilized to meet the cost of contractual and other services.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?

Multi-donor funds being sought for majority of construction expenses to be incurred under the project. AID will provide largely engineering design and construction supervision services.

Procurement of goods and services for the project will encourage international trade and competition.

Project will utilize U.S. construction design consultants and U.S. manufactured commodities.

Mali's contribution is in proportion to its status as one of Africa's very poorest nations.

N/A

B. FUNDING CRITERIA FOR PROJECT1. Development Assistance Project-Criteria

- a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

The project will reduce the enclavement of Mali's First region, providing new markets for agricultural producers and transporters throughout the area of the road and subsequently allow greater economic benefits to many poor and here to fore isolated Malian villagers.

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b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

N/A

- (1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;
- (2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;
- (3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;
- (4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:
  - (a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;
  - (b) to help alleviate energy problem;
  - (c) research into, and evaluation of, economic development processes and techniques;
  - (d) reconstruction after natural or manmade disaster;
  - (e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;
  - (f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

The project will allow greater integration of the 1st Region of Mali into the national economy.

N/A

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(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

Waived. Mali is a RLDC.

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing?

N/A

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on; (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) 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 (6) integrating women into the recipient country's national economy.

The project will impact on (2), (5), and (6) with remainder N/A.

f. FAA Sec. 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.

The project was developed upon request and in cooperation with people and Government officials of the host country, and in accordance to the GRM's own development priorities.

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g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

YES

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

No negative impact on the U.S. economy is anticipated as a result of this project.

2. Development Assistance Project Criteria (Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

N/A

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

d. FAA Sec. 201(f). Does project paper describe how 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?

## ANNEX C

### CERTIFICATION PURSUANT TO SEC. 611 (a) OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED:

The project analyses and the Feasibility Study prepared by TAMS demonstrate to the extent practical, adequate planning and design incorporated into the components of the Kayes-Nioro Road Project. This is in addition to the fact that the major portion of AID's financing of the project will consist of preparing a detailed final engineering design of the road, the major share of actual construction expected to come from multi-donor sources. The USAID engineer has reviewed and approved the planning and financial analyses for all engineering components accomplished to this point and recommends 611 (a) certification.

Therefore, I, George T. Eaton, Acting Mission Director of the Agency for International Development in Mali, based upon the project analyses and the analysis of the USAID engineer, do certify that in my judgement adequate planning necessary to carry out project assistance and a reasonably firm estimate of all costs to the U.S. Government have been completed, and therefore, Section 611 (a) of the Foreign Assistance Act has been satisfied.



MINISTÈRE  
DES TRAVAUX PUBLICS  
ET  
DU TOURISME

TÉLÉPHONE : 22-29-01 et 22-39-37  
TELEX 657

N° \_\_\_\_\_ / MTPT / CAB



MAY 17 1980

ACT	DEPO
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A/DIR	<input checked="" type="checkbox"/>
PROG	<input type="checkbox"/>
MGMT	<input type="checkbox"/>
CONT	<input type="checkbox"/>
AGR	<input type="checkbox"/>
LVST	<input type="checkbox"/>
GDO	<input type="checkbox"/>
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REPUBLICQUE DU MALI  
Un Peuple - Un But - Une Foi

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Bamako, le 16 Mai 1980

Le Ministre des Travaux Publics  
et du Tourisme

Monsieur Le Directeur de l'Agence  
l'US-AID Ambassade Américaine

--- BAKKO ---

OBJET : Projet KAYES-NIORO

REF : V/L du 10 Avril 1980

Monsieur le Directeur,

Me référant à votre lettre du 10 Avril 1980 relative au montage technique et financier du projet cité en objet et à l'entretien téléphonique que vous avez eu à ce sujet le 9 Mai dernier avec mon Directeur de Cabinet, j'ai l'honneur de vous faire part des propositions ci-dessous.

Auparavant je tiens à vous dire combien j'apprécie la collaboration fructueuse qui s'est instaurée entre votre organisme et mes services. L'intérêt constant que vous avez personnellement manifesté pour ce projet et l'efficacité avec laquelle la phase des études de faisabilité a été menée sont des signes prometteurs pour l'avenir de ce projet.

Le Gouvernement du Mali souhaiterait vivement que l'US-AID s'engage à financer en une seule étape l'étude technique définitive de la route KAYES-NIORO y compris la bretelle DIALAKA-YELIMBE.

.../...-

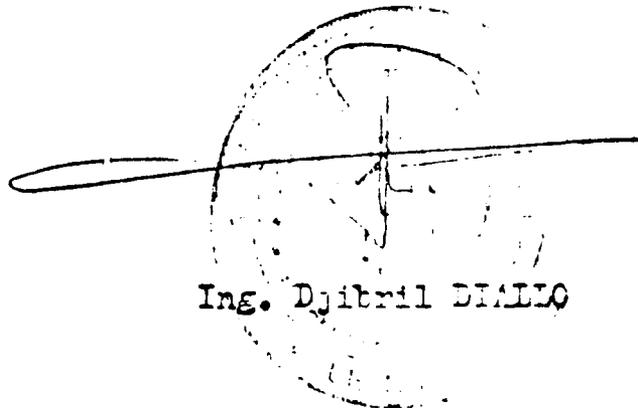
Les dossiers d'études seront toutefois conçus pour une exécution par tranches économiques c'est-à-dire prenant en compte des délais de mise en place du financement, le seuil critique d'intervention des entreprises (ou de la régie) et d'autres critères financiers et économiques.

Je puis vous assurer que le Gouvernement du Mali prendra toutes les dispositions requises pour le financement des tranches économiques qui seront ainsi arrêtées.

Je souhaiterais par ailleurs que votre organisme puisse intervenir dans le financement de la première tranche de construction.

Je ne manquerais pas de vous informer des contacts pris auprès d'autres bailleurs de fonds pour le démarrage rapide des travaux de construction.

Veuillez agréer, Monsieur le Directeur, l'assurance de ma considération distinguée.



Ing. Djibril DIALLO

*return to program files*

# TELEGRAM

ACTION: USAID  
INFO  
AMS  
DCM  
CHRON

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Classification

CONTROL 229  
REC'D: 5/6/78 1356

R 060233Z MAY 78  
FM SECSTATE WASHDC  
TO RUTABO/AMBASSY BANAKO 3458  
INFO RUTAIJ/AMBASSY ABIDJAH 3326  
RUTADR/AMBASSY DAKAR 5886  
BT  
UNCLAS STATE 116152

AIDAC DAKAR FOR OMVS COORDINATOR

E.O. 11652: N/A

TAGS:

SUBJECT: MALI ROAD DEVELOPMENT - PID REVIEW

TO	ACT	INIT
DIR		
PIOS		
MGMT		
CONT		
AGR		
LEST		
LD		
HLS		
CVL		
CSO		
CNSN		
...		

1. THE MALI ROAD DEVELOPMENT (KAYES-NIORO ROAD) PID WAS REVIEWED AT PROJECT COMMITTEE MEETING HELD MARCH 23 AND ATTENDED BY COU LEVIN, AFR/SPMA, AFR/DR, AND BERVENOR. AA/AFR HAS SUBSEQUENTLY REVIEWED THIS CABLE AND APPROVED THE PID. THE HIGH PRIORITY OF THE ROAD WAS NOTED, ALONG WITH ITS TIE-IN WITH THE CLUB DU SAHEL TRANSPORT WORKING GROUP PROGRAM. IT WAS NOTED THAT THIS ROAD FALLS BETWEEN THE CATEGORIES OF FARM-TO-BARKET AND TRUNK OR PRIMARY ROAD. PROJECT IS TO BE A KEY SECONDARY ROAD INVOLVING A MAJOR INVESTMENT (CURRENTLY PROJECTED AT D.O.S. 14 MILLION, NOT INCLUDING BRIDGES AROUND KAYES) WHICH MEANS SPECIAL APPROVAL WILL BE SOUGHT FROM THE CONGRESS.

2. AS DISCUSSED LEVIN/SHEAR CONVERSATION, A TWO-STEP PP PROCESS IS REQUIRED BECAUSE THE ENGINEERING DESIGN FOR THE ROAD WILL COST OVER D.O.S. 500,000. THE PP FOR ROAD DESIGN SHOULD TAKE INTO ACCOUNT THE BERGER ROAD MAINTENANCE DIAGNOSTIC STUDY FOR MALI AND TIE THE KAYES-NIORO ROAD PRIORITY TO THE REGIONAL PRIORITIES SET FORTH IN THE BANAKO-KAYES REGIONAL TRANSPORT STUDY, AS WELL AS TO LOCAL COMMUNITY NEEDS. IT SHOULD PRESENT (A) A COMPREHENSIVE ECONOMIC AND SOCIAL ANALYSIS OF REASONS FOR ELECTING FINANCED IN FIRST REGION OR ELSEWHERE IN MALI, (B) SCOPE, DURATION AND ESTIMATED COST OF DESIGN SERVICES REQUIRED AND (C) REVISED TRAFFIC ANALYSIS. A SECOND PP, FOR ROAD

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CONSTRUCTION, CAN BE BASICALLY AN AMENDMENT TO THE FIRST ONE, TO INCLUDE THE FINAL ENGINEERING DESIGN AND IMPLEMENTATION PLAN, REFLECTING THE RESULTS OF THE ENGINEERING STUDY. A NUMBER OF ISSUES WERE DISCUSSED WHICH SHOULD ALSO BE ADDRESSED IN PROJECT DESIGN PHASE AS FOLLOWS:

3. ASSOCIATION WITH OTHER DONORS - THIS PROJECT IS CLOSELY LINKED WITH DEVELOPMENT PLANS OF OTHER DONORS. THE CANADIANS ARE PLANNING TO FINANCE A COMPREHENSIVE RURAL DEVELOPMENT PROJECT IN THE KAARTA AREA. THE KAYES-NICRO ROAD WILL LINK THE FEEDER ROADS TO BE BUILT UNDER THE KAARTA PROJECT WITH KAYES. TOGETHER, THE SMALL ROADS AND THE KAYES-NICRO ROAD WILL "DISENCLAVE" THIS PART OF THE FIRST REGION. WE WILL WORK WITH THE CANADIANS THROUGHOUT THE DEVELOPMENT OF THIS PROJECT. THE PP SHOULD INCLUDE IN THE OVERALL COST-BENEFIT ANALYSIS AN ESTIMATE OF THE BENEFITS TO BE DERIVED BY THE KAARTA PROJECT FROM THE ROAD. RATHER THAN MAKE ROAD CONSTRUCTION CONTINGENT UPON JOINT FINANCING ARRANGEMENT WITH OTHER DONORS, WHICH COULD INDEFINITELY DELAY ITS ACTUAL FUNDING. PARALLEL FINANCING OF RELATED PROJECTS BY CIDA, BADEA, ET AL, WILL BE INVESTIGATED. INVESTIGATION SHOULD INCLUDE, HOWEVER, THE DEGREE OF DONOR COORDINATION REQUIRED IN PARALLEL ACTIVITIES, AND MECHANISM FOR ACCOMPLISHING SUCH COORDINATION, WITH RESPECT TO THOSE ASPECTS OF PROJECTS FINANCED ON A PARALLEL BASIS THAT ARE NEVERTHELESS DEPENDENT UPON ONE ANOTHER FOR SUCCESS. THE FIRST PP SHOULD OUTLINE POSSIBILITIES FOR OTHER DONOR FINANCING OF PARALLEL PROJECTS AND THE SECOND CONSTRUCTION PP SHOULD PRESENT CASE FOR U.S. FUNDING OF ROAD.

4. BRIDGES: CDD ADVISED THAT PID SHOULD ALSO HAVE INCLUDED 12 BRIDGES NEAR KAYES. THE FIRST PP SHOULD REVISE THE DESIGN COST ESTIMATE TO INCLUDE THE BRIDGES. THE BRIDGES SHOULD BE PROPERLY DESIGNED TO REDUCE NEGATIVE ENVIRONMENTAL EFFECTS.

5. DESIGN STANDARDS: THE FIRST PP TEAM SHOULD CAREFULLY DETERMINE WHAT STANDARD OF ROADS IS NEEDED (I.E., SHOULD THE ROAD BE OF R2 STANDARD AND BRIDGES BE R1 STANDARD WITH THE ROAD STANDARD INCREASING TO R1 AT SOME FUTURE POINT WHEN TRAFFIC DENSITY INCREASES.) THE EXAMINATION WOULD INVOLVE A STUDY OF PROJECTED TRAFFIC AND OF MAINTENANCE FACILITIES.

6. FORCE ACCOUNT VS. PRIVATE CONTRACTOR IS AN ISSUE THAT

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OPTIONAL FORM 10101  
(Formerly FS-412M)  
January 1975  
Dept. of State

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SHOULD BE INCLUDED IN FEASIBILITY STUDY CONDUCTED UNDER FIRST GRANT. A POINT-TO-POINT ROAD PRESENTLY ESTIMATED TO COST APPROXIMATELY DOLS. 14 MILLION MAY WELL ATTRACT INTEREST OF U.S. FIRMS AND CONSTRUCTION FIRMS IN OTHER COUNTRIES IN CODE 941 (WHICH WILL BE AUTHORIZED CODE FOR A GRANT TO MALI SINCE IT IS AN RLDC.) PRESENT LACK OF LOCAL AMERICAN EXPERTISE DOES NOT JUSTIFY EXCLUSION OF U.S. OR OTHER CODE 941 FIRMS FROM COMPETING FOR A POINT-TO-POINT ROAD CONSTRUCTION CONTRACT AS LARGE AS THIS ONE IS ESTIMATED TO BE. THEY SHOULD BE PERMITTED TO COMPETE ON BASIS OF PROVIDING REQUIRED PRESENCE. IT SHOULD ALSO BE NOTED THAT FAA CONTAINS A NUMBER OF PROVISIONS ENCOURAGING THE USE OF PRIVATE ENTERPRISE, ESPECIALLY FROM THE U.S., AND ANY RECOMMENDATION TO USE FORCE ACCOUNT FOR THIS AMOUNT OF CONSTRUCTION MUST BE CAREFULLY AND FULLY JUSTIFIED FROM THE POINTS OF VIEW OF POLICY AND GRM CAPABILITY.

7. USE OF U.S. FIRMS: IT WAS NOTED THAT THE CONSTRUCTION PROJECT MAY BE TOO SMALL TO ATTRACT BIDS FROM U.S. FIRMS. BE HOWEVER, DESIGN SPECIFICATIONS SHOULD BE OF STANDARD HIGH ENOUGH TO ALLOW INTERNATIONAL BIDDING.

8. ROAD UPKEEP AND MAINTENANCE: FIRST PP MUST ADDRESS ISSUE OF WHETHER MINISTRY OF ROADS WOULD BE ABLE TO MAINTAIN THE ROAD (BOTH FINANCIALLY AND LOGISTICALLY) AFTER IT IS BUILT. THE PP TEAM SHOULD EXAMINE THE ISSUES OF REQUISITE STAFFING AND EQUIPPING OF VARIOUS MAINTENANCE FACILITIES ALONG THE ROAD AND IN KAYES (EQUIPMENT REPAIR FACILITIES), AND WHAT AID AND OTHER DONOR ACTIONS WILL BE NECESSARY TO ENSURE MAINTENANCE OF THE ROAD.

9. ENVIRONMENT - THERE ARE SOME IN AID/W WHO BELIEVE THAT A POINT TO POINT ROAD (250 KM) PRESENTLY ESTIMATED TO COST APPROXIMATELY DOLS. 14 MILLION TO REPLACE AN EXISTING TRAIL IN AN AREA DESCRIBED AS "ENCLAVED" BECAUSE OF THE PRESENT LACK OF TRANSPORTATION WILL HAVE A SIGNIFICANT EFFECT ON THE HUMAN AND PHYSICAL ENVIRONMENT, REQUIRING AN

ENVIRONMENTAL ASSESSMENT UNDER A.I.D. REG. 16. FIRST PHASE FEASIBILITY STUDY GRANT PROVIDES AN EFFECTIVE MECHANISM FOR MEETING A.I.D.'S ENVIRONMENTAL RESPONSIBILITIES WITHOUT DELAYING OR IMPEDING MOVEMENT TOWARD OBLIGATION OF FUNDS FOR CONSTRUCTION PHASE OF PROJECT. EA WOULD FIT NICELY INTO THE TERMS OF REFERENCE OF STUDIES TO BE CONDUCTED BY TEAM ASSESSING FEASIBILITY OF ROAD.

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*Classification*

PLEASE PROVIDE REVISED IEE ADDRESSING THIS CONCERN.

10. 25 PERCENT HOST COUNTRY CONTRIBUTION: THIS WILL NOT BE MET. HOWEVER, THIS IS NOT AN ISSUE, SINCE SOP FUNDS

ARE TO BE USED. A WAIVER WILL NOT BE NECESSARY.

11. SEPIEL WILL ADVISE REGARDING TIMING, COMPOSITION, AND SCOPE OF WORK OF FIRST PP TEAM.

12. BECAUSE THIS ACTIVITY FALLS SOMEWHERE BETWEEN RURAL ROADS PROGRAMS CURRENTLY BEING FINANCED BY AID IN THE SAHEL AND A ROAD OF ENGINEERED GRAVEL STANDARD, WE PLAN TO CONSULT WITH THE CONGRESS IN THE COURSE OF THE COMING MONTHS. WE BELIEVE THE TESTIMONY DURING THE FY 79 HEARINGS HAS AMPLY PROVIDED A CLEAR CASE FOR PROCEEDING. WE BELIEVE IT IMPORTANT, NEVERTHELESS, TO CONTINUE TO KEEP THE CONGRESS INFORMED AS WE PROCEED TOWARDS MORE COSTLY TRANSPORTATION PROJECTS.

13. SEPIEL DISCUSSES NEED FOR EVALUATION SECTION IN PP. CHRISTOPHER  
PT

UNCLASSIFIED

*Classification*

OPTIONAL FORM 10701  
(Formerly PS-4121-1)  
January 1979  
Dept. of State