PD-ABM-542
98507

MOZAMBIQUE

RURAL ACCESS

PROJECT

(RAP)

656-0232

PP

August 1995

U.S AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE
x A = Add Amendment Number B = Change
C = Delete

DOCUMENT CODE
3

2. COUNTRY/ENTITY
Mozambique

3. PROJECT NUMBER
[656-0232]

4. BUREAU/OFFICE
AFR

5. PROJECT TITLE *(maximum 40 characters)*
[Rural Access Project]

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
September 30, 2002

7. ESTIMATED DATE OF OBLIGATION
(Under 'B,' below, enter 1,2,3, or 4)
A.Initial FY _95_ B.Quarter _3_ C.Final FY _01_

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

A. FUNDING SOURCE		FIRST FY _95__			LIFE OF PROJECT		
		B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID Appropriated Total							
(Grant)		(8,600)	(0)	(8,600)	(53,000)	(0)	(53,000)
(Loan)		(0)	(0)	(0)	(0)	(0)	(0)
Other U.S.	1.						
	2.						
Host Country		0	0	0	0	17,666	17,666
Other Donor(s)							
TOTALS ⇒		8,600	0	8,600	53,000	17,666	$70,666

9. SCHEDULE OF AID FUNDING ($000)

A APPRO-PRIATION	B PRIMARY PURPOSE CODE	C. PRIMARY TECHNICAL 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)DFA	800	824	N/A	0	N/A	8,600	N/A	53,000	N/A
(2)									
(3)									
(4)									
TOTALS ⇒				0	N/A	8,600	N/A	53,000	N/A

10. SECONDARY TECHNICAL CODES *(maximum 6 codes of 3 positions each)*
820

11. SECONDARY PURPOSE CODE

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

A. Code	AGIF	INTR					
B. Amount	4,600(FY95)	4,000 (FY95)					

13. PROJECT PURPOSE *(maximum 480 characters)*
To increase access and reduce the cost of transportation in targeted rural areas with a high potential for agricultural growth and large population concentration.

14. SCHEDULED EVALUATIONS

	MM	YY	MM	YY		MM	YY
Interim					Final	06	02

15. SOURCE/ORIGIN OF GOODS AND SERVICES
_x_ 000 ___ 941 _x_ Local _x_ Other (Specify)_935___

16. AMENDMENTS/NATURE OF CHANGE PROPOSED *(This is page 1 of a ___ page PP Amendment)*
The Controller has reviewed the project implementation plan. A HCC assessment has been completed and planned methods of financing are in accordance with current Agency guidance . Adequate funding is provided for financial audit.

8/2/95

George Jenkins, Controller

17. APPROVED BY

Signature
Roger D. Carlson

Title
Director
USAID/Mozambique

Date Signed
MM DD YY
8 22 95

18. DATE DOCUMENT RECEIVED IN USAID/W, OR FOR USAID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY
02 1 2 9 6

AID 1330-4 (5-79)

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PROJECT PAPER

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ACRONYMS

BEO - Africa Bureau Environmental Officer
BOQ - Bill of Quantities
BRM - Basic Routine Maintenance
CP - Capital Projects Division
CP - Conditions Precedents
CPSP - Country Program Strategic Plan
CSP - Country Strategic Plan
DEP - Provincial Departments of Roads and Bridges
DNEP - National Directorate of Roads and Bridges
DNR - Donor
DPOPHs - Provincial Directorate of Public Works and Housing
EA - Environmental Assessment
ECMEPS - Enterprises for Construction and Maintenance of Roads and Bridges
ECPR - Executive Committee for Program Review
ERR - Economic Rates of Return
ESF - Environmental Screen Form
FEA - Focused Environmental Analysis
FY - Fiscal Year
GRM - Government of the Republic of Mozambique
HCC - Host Country Contracting
HCCA - Host Country Contracting Agency
HRM - Heavy Routine Maintenance
IC - Institutional Contract
IEE - Initial Environmental Examination
ILO/UNDP - International Labor Organization/United Nations Development Program
IQC - Indefinite Quantity Contract
LOP - Life of Project
LRCI - Local Road Construction Industry
LT - Long-Term
MEO/A - Mission Environmental Officer/Advisor
MIS - Management Information System
MOPH - Ministry of Public Works and Housing
MT - Meticais
NFA - Non-Federal Audit
NGOs - Non-Governmental Organizations
OYB - Operational Year Budget
PACD - Project Activity Completion Date
PD&S - Project Development and Support
PDC - Project Design Committee
PDM - Project Design and Management
PERCS - Private Equipment Rental Companies
PIAS - Project Impact Assessment System

PIO/T - Project Implementation Order/Technical Assistance
PIR - Project Implementation Report
PM - Periodic Maintenance
PM - Project Manager
PP - Project Paper
PSC - Personal Services Contractor
PTIP - Public Triennial Investment Plan
PVOs - Private Voluntary Organizations
RAA - Rural Access Activity
RAP - Rural Access Project
RCO - Regional Contracting Officer
REO/A - Regional Environmental Officer/Advisor
RF - Road Fund
RIG - Regional Inspector General
ROCS-1 - Roads and Coastal Shipping Project 1
ROCS-2 - Roads and Coastal Shipping Project 2
RTTC - Roads Technical Training Center
SO - Strategic Objective
SOW - Scope of Work
ST - Short-Term
T/E - Technical/Engineering
TA - Technical Assistance
TBD - To Be Decided
TOR - Terms of Reference
USAID - United States Agency for International Development
USDH - United States Direct Hire
VOC - Vehicle Operating Cost
VPD - Vehicles per Day

I Executive Summary

The Rural Access Project (RAP) is a **$53.0** million, seven-year activity whose **Goal** coincides with the Mission Strategic Objective of "increased income for rural households in targeted areas." The goal will be met through achievement of the project's **Purpose**, "increasing access and reducing the cost of transportation in targeted rural areas with a high potential for agricultural growth and large population concentrations." Both RAP's Goal and Purpose will significantly contribute towards achievement of the Mission's Country Program Strategy sub-goal of enhanced national food security. The extremely poor condition of the current rural road system is a major impediment to increased access, with associated high economic and social costs. RAP supports Government of the Republic of Mozambique (GRM) priorities, including the recently completed National Poverty Reduction Strategy, and other donor road sector activities under the World Bank's ROCS-2 project.

Under RAP an estimated 1,400 kilometers of rural roads in four key agricultural provinces located in central Mozambique will be rehabilitated to all-weather standards. The estimated cost for this work is **$34** million. The criteria for preliminary road selection includes securing prior USAID "emergency road opening" investments under the Rural Access Activity (RAA), location in an area of significant agricultural potential and high population concentration within the Mission's overall strategic target area, inclusion in the GRM's National Roads Program financed under ROCS-2, and linkage to an existing facility or another road activity under ROCS-2. Detailed economic, social soundness and environmental analyses following methodologies discussed in the Project Paper will be performed on all proposed road segments, except those opened under RAA, prior to final design and construction.

Long-term technical assistance (TA) estimated to cost approximately **$5.5** million will be provided to the GRM implementing institution, the National Directorate of Roads and Bridges (DNEP), to assist with planning, procurement and contract administration associated with road rehabilitation and maintenance. This TA will also strengthen DNEP's and Provincial Departments of Roads and Bridges (DEPs) institutional capacity in these areas. Decentralization of responsibilities from DNEP to DEPs will be supported when appropriate.

As important as road rehabilitation is to promoting agriculturally-based growth, the ultimate success of the activity will be equally measured by the degree to which improved roads are adequately maintained, thus ensuring continued benefit from the investment. During preparation of the Project Paper significant thought went into key aspects of road maintenance. Technical assistance under RAP will support improved national-level road maintenance planning, strengthened maintenance financing, and the promotion of community-based and small scale "emerging" routine road maintenance providers.

Road rehabilitation under RAP is planned in two, three-year phases. Conditions precedents (CPs) have been developed for inclusion in the grant agreement which will: **(a)** condition initial disbursement of funding for road rehabilitation contracts on steps taken by the GRM to improve programming of road maintenance and the revenue-generating capability of the Road Fund (RF); and **(b)** condition subsequent disbursement of rehabilitation funding on successful maintenance of the prior phase of rehabilitation. A covenant to continued project financing by USAID supports the GRM in adopting policies and implementing procedures to strengthen the national road maintenance capacity. Approximately **$5** million has been budgeted for short-term TA and grants to PVOs to support this effort.

II Background and Problem

A. The Rural Roads Sector: At the beginning of the 1990s less than 10 percent of the national public road network comprising some 5,300 km of paved roads and 23,900 km of earth/gravel roads was in good condition. The World Bank found that only six percent of unpaved main highway links were rated "good" in 1989. Fully a third of the network was not passable on a year-round basis. The extremely poor condition of the system is attributable to lack of maintenance over at least the last twenty years, owing to: (i) lack of security in many rural areas which made regular road maintenance impossible; (ii) inadequate institutional capacity; and (iii) lack of adequate, regular funding for road maintenance. The condition of rural roads in 1995 is even worse.

Rural roads are arguably the most important component in Mozambique's economic and social infrastructure. Agriculture comprises roughly 60 percent of the country's GDP and is responsible for 80 percent of both employment and export earnings. Growth of the economy, the concomitant reduction in poverty, and greater national food security will depend on the recovery of the agricultural, and particularly small-farm, sector. The very poor quality of the road network has extremely detrimental consequences for rural economic activity, as well as provision of emergency assistance and access to normal social services. With the coming of peace in the countryside for the first time in two decades, perhaps restoration of reliable and efficient rural transport services is the most important requirement now for enhancing national food security through recovery of agricultural production and the efficient distribution of marketable surpluses. A rehabilitated rural road network would in addition provide a solid base for strong development of the country as a whole given agriculture's importance in the national economy.

The current condition of the rural road system manifests in lack of access: lack of access to their homes by returning refuges; lack of access to markets on the part of farmers with surpluses; lack of access to agricultural inputs required to further increase agricultural production, productivity and rural incomes; and lack of access to social services required for a healthier, better educated population. The inaccessibility of much of the rural population also works against their participation in the nascent democratization process currently underway.

Where it is possible at all, access comes at a high cost. A World Bank study found that world market prices of several agricultural products barely cover production costs in Mozambique, due primarily to extremely high transport costs. There is little incentive to increase agricultural production as long as surpluses cannot economically be brought to market.

B. The Post-War, Post-Election Period: The 1992 ceasefire ending the civil war was followed by a national election held in October 1994. The election, and the apparent acceptance of the results by all the political parties, should usher in a real period of rebuilding. Since the ceasefire the security situation in the countryside has improved enough to encourage the gradual return of over 5.5 million rural residents to areas they formerly occupied. The central government has begun to re-establish its presence in areas of the countryside that had been most effected by the conflict and drought.

In the post-election environment, USAID is shifting away from its "transition" strategy which has guided the Mission since the ceasefire, to a strategy oriented towards sustainable development. The final design of the project has taken place concurrently with the development of a new Country Program Strategic Plan (CPSP) which will guide USAID's development efforts in Mozambique until the end of the 1990's. However, the project will address remaining "transition" issues, for example, through facilitating the continuing return of displaced populations, as well as help establish the foundation for sustainable development based on rural economic recovery.

C. <u>Previous Experience with Similar Activities</u>: The Mission's previous experience with the rural roads sector stems from the USAID response to serious drought in parts of Mozambique over the 1991/92 crop year. The impact of drought ultimately resulted in the import of 12 million tons of emergency food aid. The difficulty in transporting these supplies to affected populations clearly demonstrated the poor quality of much of the rural road system. In addition, the 1992 cease-fire significantly increased the number of refugees returning to their homes who were also in need of assistance. Difficulty in access was again experienced due to the condition of long unmaintained rural roads.

In response, the Mission's <u>Rural Access Activity</u> (RAA) was authorized in 1993 with the purpose of increasing transportation efficiency and capacity related to: **a)** post-drought recovery in the Zambezi River Valley; and **b)** movement of drought relief assistance to Tete province. The effort received funding from USAID's Regional Drought Emergency Relief Project (690-0270.56), and the bilateral RAA Project (656-0237) totaling $20,000,000.

RAA thus responded to the need to reduce costs of supplying emergency relief to victims of both drought and war, and to facilitate reintegration of these people into a normal productive society. Specifically, the activity consisted of rehabilitating 700 Km of earth roads in Sofala, Tete and Zambezi Provinces, and about 285 Km of a major paved national highway in the Beira-Tete-Malawi corridor. RAA also involved the repair of a railway bridge across the Zambezi River and its conversion to vehicular traffic. With the exception of the bridge conversion, all work was completed by the end of 1994, and resulted in: **a)** delivery of relief supplies to areas previously supplied by costly airlifts; **b)** the return of large numbers of drought-displaced persons and refugees and reestablishment of family farms abandoned due to drought and/or war; **c)** delivery of seeds, tools and other agricultural inputs, and, **d)** regeneration of rural market economic activity crucial to post-drought/war social and economic reintegration.

RAA was conceived primarily as a rapid response to urgent humanitarian needs associated with the drought and post-war environment. Results of the activity have been very successful and RAA has become a model for donors to follow in the rural roads sector under the GRM's continuing Post-War Recovery Project. However, given the urgency of the rehabilitation under RAA, road work performed was only up to certain "emergency" standards, i.e., the rehabilitation does not allow the year round all-weather access which is so crucial to engendering rural economic activity. RAP is intended to address this issue: road rehabilitation standards will be raised to permit all-weather access over a 10-15 year period assuming appropriate road maintenance is undertaken.

D. <u>Relationship to USAID Strategy</u>: USAID/W has recently reviewed a new Country Strategic Plan (CSP) for Mozambique covering the period 1996-2001, the focus of which is on development over the medium term rather than transitional responses to major events such as war, drought, the peace accord and national elections which guided the Mission's efforts in the proceeding period. The CSP's final development and the design of RAP, which will cover roughly the same period as the plan, occurred simultaneously. RAP's relationship to USAID's strategic plan in Mozambique is thus particularly close.

The goal of USAID activities in Mozambique is "broad participation in political life and economic growth." There are two CSP sub-goals, "enhanced national food security" and "improved health for women and children," under which there are three Strategic Objectives (SOs): (1) "rural household income increased in targeted areas;" (2) "government more accountable to citizens;" and (3) "use of essential MCH/FP services increased." The Rural Access Project will most significantly contribute to the CSP sub-goal of enhanced national food security, and to the "increased rural household incomes" SO. Through improving access in rural areas it will also support the second sub-goal and the Mission's remaining SOs.

The difficulty and cost of transport in rural areas has been identified as a critical constraint to achieving SO #1's Program Outcome 1.1, "increased access to markets." As noted in Section II.A, above, the secondary and feeder road system throughout Mozambique is in very poor condition. Transport difficulties constrain both attempts to increase agricultural productivity, and marketing of resulting surpluses. Many high potential agricultural areas are not accessible to vehicular traffic, at least during significant portions of the year, and even if and when they are, poor road conditions greatly increase transport costs. Not only is the cost higher, and therefore use of inputs reduced, e.g., fertilizer, improved seeds, etc. which are crucial to increasing agricultural productivity, but farmgate prices of many surplus agricultural products are also reduced due, in large part, to high transport costs. The fact is that without improved access, rural households can be locked into subsistence agriculture with remote chances for any significant increase in household income. From a food security standpoint, both household food access and national food availability suffer.

The Rural Access Project will also support the Mission's second CSP sub-goal of "improved health for women and children," through providing improved access to reproductive and child health services. Access becomes a critical factor as health and other social services begin to reappear in towns in rural areas in the post-war period. Rural roads which permit year round vehicular use will facilitate access to and encourage use of health services. Finally, increased access also relates to the Mission's second Strategic Objective: government accountability in Mozambique will be facilitated by "opening up" rural areas through improved road access.

Like RAA before it, the Rural Access Project is consistent with the USAID Southern Africa Regional Program strategic transport sector objective to "improve efficiency in infrastructure that serves regional cooperation, provides access to regional and external markets and fosters economic growth." While the majority of roads targeted under this activity will serve primarily local and national markets, a key road segment with regional linkages is also to be rehabilitated.

E. Relationship to Government of the Republic of Mozambique Priorities: Since the signing of the Peace Accord in October 1992, the Government of the Republic of Mozambique (GRM) has been assessing the physical state of the country's infrastructure, driven by the short-term need to accommodate large numbers of returning refuges, and also to establish a foundation for renewed economic growth. Reconstruction of the country's economic infrastructure is arguably the GRM's paramount priority, and the importance of rural roads in this reconstruction is well appreciated.

Under the broad umbrella of the multi-year Public Triennial Investment Plan (PTIP), the GRM's Transport Sector Strategy is an integral part of its efforts to embark on a path of sustainable economic recovery. The overall objective of this strategy is to remove bottlenecks which are obstacles to economic growth. Within the transport sector, roads are considered by the GRM to be "Essential to provide the transport infrastructure needed to ensure a recovery..." The GRM agrees with most donors that agriculture will be the basis for economic recovery, and therefore rural infrastructure such as roads are a top priority. Specifically, as outlined in the "letter of sector policy," the GRM's first priority was to open up the road network through emergency maintenance works and light rehabilitation to restore roads to a passable condition. Through RAA USAID supported this initial priority. The letter states that this work is to "be followed by restoration of priority roads through minimal cost rehabilitation." It is this next step that the RAP, and other donor activities (see next section, below) will directly support. The GRM's National Poverty Reduction Strategy, prepared for the March 1995 donor "Consultative Group" meetings in Paris, clearly notes the importance of improving rural economic infrastructure, and in particular secondary and feeder roads.

F. Relationship to Other Donor Activities: RAP is an integral part of a coordinated multi-donor response to improving road transport in Mozambique. This multi-year effort was started under the World Bank's Roads and Coastal Shipping project (ROCS-1) in 1992. RAP is to be a significant component of a second Bank project (ROCS-2), begun in 1994.

The primary objective of the five-year ROCS-2 is to contribute to restoration of economic growth through: 1) improving road transport and protecting selected past road investment by rehabilitating priority roads and eliminating much of the huge backlog of deferred maintenance and resumption of regular maintenance activities; 2) further strengthening the capacity of the road sector by continuing regulatory reform and institution building initiated under ROCS-1, and ensuring effective planning and monitoring by the government; and 3) developing the capacity of private sector contractors and operators to rehabilitate and maintain roads. Under ROCS-2 the World Bank will coordinate donor participation, including that of USAID, in the transport sector.

Under ROCS-2, technical assistance and training funded by the Bank and bilateral donors will continue to be offered to DNEP and DEPs, and additional TA will support development of the local road contracting industry. TA funded by RAP will strengthen selected areas of weakness in some of the road sector institutions identified in the technical and engineering analysis (see Annex H). The 1,400km of roads rehabilitated under RAP will contribute towards the ROCS-2 output of about 3,250km of priority roads rehabilitation. (See Project Files for the World Bank ROCS-2 Staff Appraisal Report.)

III Project Description

A. Project Goal and Purpose: The **Goal** of the Rural Access Project is to increased income for rural households in targeted areas. RAP's Goal will significantly contribute towards achievement of the Mission's Country Program Strategy sub-goal of enhanced national food security.

The Project **Purpose** is to increase access and reduce the cost of transportation in selected rural areas with high potential for economic growth and large population concentrations. The Purpose will be achieved and sustained through several related mechanisms. First, priority rural roads will be rehabilitated, primarily to an all-weather standards. Second, RAP will strengthen the GRM's capacity to plan, contract for and supervise road rehabilitation and maintenance activities. Third, the ability to undertake such road works by the for-profit private sector, "emerging contractors," and non-governmental organizations (NGOs) will be developed under RAP. Lastly, the GRM's capacity to finance routine and periodic maintenance of the rural road network will be enhanced through increasing revenues available for road maintenance and improved administration of the GRM's Road Fund (RF). Short-term TA funded under RAP will support the former, while TA provided under ROCS-2 will strengthen RF administration.

B. Project Outputs and Indicators:

(1) Rehabilitated Roads. The activity will rehabilitate approximately 1,400km of priority rural roads which will provide local and regional links to national and regional road transport networks. Targeted roads are located in the provinces of Zambezia, Nampula, Sofala and Tete. Criteria for roads tentatively selected for rehabilitation include securing prior USAID "emergency road opening" investments under the RAA project, location in an area of significant agricultural potential and high population concentration within the Mission's overall strategic target area, inclusion in the GRM's National Roads Program financed under ROCS-2, linkage to an existing facility or another road activity under ROCS-2, and that rehabilitation can be undertaken in an environmentally and socially sound manner. Emphasis will be on providing greatly enhanced access to rural communities and smallholder farm households. A detailed discussion of the selection process can be found in Annex H. With the exception of

"RAA roads" to be rehabilitated during Year One of RAP, the final selection of roads to be improved will be based on the results of economic, social soundness, and environmental impact analyses.

As a result of discussions between the GRM and USAID, and fieldwork conducted by USAID consultants during the preparation of the Project Paper, fifteen (15) road segments have been tentatively selected for rehabilitation over the LOP (see Table 1, below). The majority of the rehabilitation will involve Class 2 roads, i.e., secondary roads. In addition, a limited amount of Class 1 primary roads and Class 3 tertiary roads may also be rehabilitated. For example, the initial assessment indicates that a strategic section of Class 1 road between Inchope and Caia in Sofala Province should be also rehabilitated to promote increased and lower cost access between south-central and north-central Mozambique (see Annex H, Technical and Engineering Analysis, for further discussion).

Rehabilitation work will commence in Year One with road segments in the Zambezi River Valley initially improved under RAA, and based on the results of pre-design analyses, proceed south and north in project years 2-6. Based upon the results of the economic analysis, and cost considerations, roads may be rehabilitated to differing standards. Major regional market road links with heavier anticipated traffic will be rehabilitated to all-weather standards, while local roads with less traffic may benefit from a lesser degree of rehabilitation using labor-intensive methods.

If labor-intensive methods are utilized for tertiary roads, it is anticipated that in lieu of contracts to road construction firms, grants would be awarded to PVOs experienced in developing and implementing labor-intensive road opening/rehabilitation programs. Such grants would cover the cost of both the organizational work provided by the PVO, and of labor and material costs directly associated with the rehabilitation. Labor-intensive road rehabilitation efforts would be carried out in under the direction of DNEP and the appropriate DEP, and would follow policies and procedures developed under the successful ILO/UNDP Feeder Roads Program.

OUTPUT INDICATORS: Approximately 1,400km of roads rehabilitated to acceptable, field verified all-weather standards.

TABLE 1 -- Initial Roads Proposed For Rehabilitation and Illustrative Construction Phasing Schedule

Road Segment	**Class**	**Kms**	**Est'd. Cost (US$ M)**	**Contract No.**
PHASE 1				
YEAR 1				
Cambulatsitsi-Mutarara	2	247	3.5	1.1
Mutarara-VN da Fronteira	2	42	0.5	1.1
Sena-Caia-Chemba	2	100	1.0	1.2
SUBTOTALS		**389**	**5.0**	**2**

NOTE: Year 1 roads were improved under RAA (656-0237).

Road Segment	**Class**	**Kms**	**Est'd. Cost (US$ M)**	**Contract No.**
YEAR 2				
Caia-KM 13 South of Caia	1	13	0.4	2.1
Inchope-Gorongosa	1	70	2.2	2.1
Gorongosa-Inhaminga	1	112	3.9	2.2
Inhaminga-Caia (13km S)	1	72	2.5	2.2
SUBTOTALS		**267**	**9.0**	**2**

Road Segment	Class	Kms	Est'd. Cost (US$ M)	Contract No.
YEAR 3				
Pinda-Morire	2	110	4.0	3.1
Morire - Milange	2	95	3.3	3.1
SUBTOTALS		**205**	**7.3**	**2**
PHASE 2				
YEAR 4				
Morrumbala-Derre	3	75	2.6	4.1
Ribaue-Lalaua	3	77	2.7	4.2
SUBTOTALS		**152**	**5.3**	**2**
YEAR 5				
Malema-Vacha-Molocue	3	106	3.0	5.1
Iapala-Vacha	3	83	2.3	5.1
SUBTOTALS		**189**	**5.3**	**1**
YEAR 6				
Cava-Nampuecha-Muhula	3	126	0.8	6.1
Netia-Nacala Velha	3	82	1.3	6.2
SUBTOTALS		**208**	**2.1**	**2**
GRAND TOTAL		**1,417**	**34.0**	**11**

NOTE: Rehabilitation will take place in two phases: Phase 1 is expected to occur over the first three construction years, 1996-1998, and Phase 2 over the final three, 1999-2001.

(2) **Strengthened GRM capacity to plan, contract for and supervise road rehabilitation and maintenance activities.** This output is linked to the GRM's important new policy regarding DNEP's sectoral role -- as administrator, rather than implementor of works -- and will strengthen that institution's capacity to plan, contract for, and supervise road rehabilitation and maintenance activities carried out by others. The output is directly supportive of ongoing and planned technical assistance efforts supported by the World Bank-led ROCS project.

Technical assistance in these areas has been provided by other bilateral donors under ROCS-1, and a World Bank assessment was recently conducted of its thoroughness and effectiveness. Support provided under RAP will involve on-the-job training necessary to further develop the capacities of DNEP, and provincially-based Departments of Roads and Bridges (DEPs) located in project areas, in road maintenance planning, contracting procedures and contract administration/monitoring.

OUTPUT INDICATORS: DNEP and selected DEPs capable of conducting Host Country Contracting (HCC) to USAID standards.

(3) **Strengthened ability of the private sector, including local bodies to undertake road rehabilitation and maintenance.** As important as road rehabilitation is to achieving the goal of the project, the ultimate success of the activity will be equally measured by the degree to which improved roads are adequately maintained, thus ensuring continued benefit from the investment. Proper road maintenance is contingent upon two general factors: financing (discussed in section 4, below) and the institutional capacity to perform the maintenance, the subject of this project output.

It is clear that past reliance on state institutions -- the provincial ECMEPS -- for most maintenance must be increasingly be put on other providers. USAID believes that with the exception of emergency road repair work, and maintenance of roads in isolated areas where the private sector can not be attracted, maintenance and rehabilitation efforts should largely be the responsibility of non-governmental entities. The GRM shares this vision: DNEP's plan is for national road maintenance to be provided as follows by RAP's PACD in 2002.

o <u>Basic Routine Maintenance</u> (BRM) on the entire road network which is in good or fair condition (eventually about 19,000km) will be performed primarily through contracts to the local road construction industry, including petty contractors, and local communities. The "lengthmen system" will be utilized on approximately 40 per cent of the network.

o <u>Heavy Routine Maintenance</u> (HRM) would be performed equally by private contractors and ECMEPs, which would also set standards, provide oversight and administer the contracts.

o <u>Periodic Maintenance</u> (PM) would be carried out by private contractors, except in more isolated areas where market forces would not tempt the private sector to venture. In these limited cases, estimated to range between 15-20 per cent of the total network, ECMEPs would be responsible for the work.

Strengthening the institutional capacity of the private sector road construction industry to participate in road rehabilitation and maintenance is a major objective of ROCS-2, as well as a strong interest of USAID. A comprehensive effort in this area has been formulated by World Bank consultants, and has received a commitment of funding from another bilateral donor (see Annex H). For this reason, strengthened "formal sector" road construction capacity is not identified as a discrete output of RAP. However, RAP will support the strengthening of private sector road rehabilitation and maintenance capacity in Mozambique in several ways:

A) By strongly encouraging road rehabilitation prime contractors to subcontract work to local contractors, and in the process transferring skills and knowledge. ("Local contractors" could include non-profit, as well as for-profit entities.) The goal is for Mozambican firms to undertake 25 percent, by value, of the road rehabilitation and maintenance work over the LOP.

B) With the exception of the roads improved in the first year of the project, rehabilitation contracts will include a one year, post-completion routine maintenance period. The private Mozambican construction firms subcontracting rehabilitation work would be made responsible for this routine maintenance under the supervision of the prime contractor. The Mozambican firm would be encouraged to use labor-intensive maintenance methods such as the lengthmen system, in accordance with DNEP policies and procedures. The objective of this program would be to, in addition to ensuring that the road(s) itself was maintained, build local private sector road maintenance capacity. It is anticipated that after the conclusion of the one-year maintenance period, the local contracting entity would be well placed to be contracted by the provincial DEP to provide continuing road maintenance services funded by the Road Fund.

C) RAP will support the creation of a pilot program overseen by DNEP under which private agribusiness concerns participate in routine and periodic road maintenance in areas in which they are located. Such businesses have a strong vested interest in rehabilitated and well maintained roads, and they are well suited to participate in a maintenance program given their proximity to the roads and both the labor force and heavy equipment at their disposal. There is evidence that some already are involved with the maintenance of "public" roads. For example, logging companies are maintaining a road segment northwest of Gorongosa, required to transport timber to sawmills outside of the area. Agreements will be sought that, in return for the rehabilitation of a particular road segment, would require the provision of heavy routine and periodic maintenance over an established period of time.

D) Even with strengthening of private sector contractors and the participation of private businesses with a vested interest in road maintenance, it is unlikely that all road maintenance needs can be met without the participation of local communities. This fact is recognized by DNEP and is supported by ROCS-2 and the National Roads Program, under which implementation of the "lengthmen system" for 40% of national basic routine maintenance has been proposed. In this system one or two local people are responsible for a fixed length of the road -- usually 5km on paved roads and 2.5km on unpaved segments. Under RAP, USAID will award grants to PVOs, and possibly indigenous NGOs, to develop community-based lengthmen systems to provide basic routine road maintenance. DEPs would plan, control, inspect, and pay for the actual maintenance work using Road Fund resources.

E) Grants will also be awarded to PVOs supporting the parallel development of locally-based, "emerging" small-scale road maintenance and repair providers. Such concerns would be contracted by DEPs to provide both heavy routine maintenance requiring some mechanized equipment, and periodic maintenance, which would require greater mechanization. It is anticipated that the required equipment would be sourced from the equipment pools described below. As with grants for the development of lengthmen systems, these grants would only cover organizational start-up costs, while funds for the maintenance work itself would come from the Road Fund.

The creation of proposed road equipment pools requires further assessment. As part of the ECMEP's proposed restructuring, excess equipment will be contributed by the GRM towards formation of three or more privately operated equipment pools to be located in southern, central and northern areas of the country. Both a new role for ECMEPs and creation of road equipment pools are considered crucial to sustainable, private-sector led road maintenance efforts in Mozambique, and may be encouraged under RAP.

OUTPUT INDICATORS: (a) All roads rehabilitated under RAP are receiving adequate maintenance, and the GRM has achieved substantial success in adequately maintaining all roads rehabilitated under its National Roads Program; (b) The GRM has adopted nationwide locally-based approaches, such as the lengthman system, for basic routine maintenance; (c) Rural based, small scale construction firms have developed and are participating in routine and periodic maintenance activities within the project area; (d) A program involving the maintenance of select roads by agri-businesses and/or other interested parties established in the area has been developed and is operating; and (e) ECMEPS in provinces where RAP is targeted have been restructured and are capable of undertaking assigned responsibilities to an acceptable standard.

(4) Strengthened GRM capacity to finance routine and periodic maintenance. Sustainable rehabilitation of the rural road network is contingent upon adequate maintenance, which in turn is largely dependent upon the improved functioning of the GRM Road Fund (RF). Both the revenue flowing into the RF and its administration must be improved. The GRM is aware that the RF, as currently managed, will not meet the requirements of ongoing, much less planned road maintenance activities (see Annex J, Financial Analysis). The GRM is currently reviewing a report prepared by World Bank consultants presenting various options for consideration. (Some 7,000km of rural roads currently receive some degree of maintenance, and that figure is expected to rise to 19,000km when road rehabilitation planned under ROCS-2 is completed.) Meanwhile, steps were recently taken to greatly improve the collection and retention of international transit charges.

The real issue is, however, the level of the diesel fuel surcharge. The current surcharge is less than in neighboring countries, and significantly less per liter than normal petrol in spite of the impact diesel-fueled trucks and buses have on road wear. A move to increase the surcharge to a more realistic level would be in line with the GRM's general sectoral policy, albeit a difficult decision to make. However, there are encouraging signs: at the beginning of May the GRM increased fuel surcharges for the second time in 1995, and officials responsible for fuel pricing have indicated to the Mission that they intend to not only keep the surcharges in line with inflation, but increase the level of the diesel surcharge in real terms as well. RAP, like ROCS-2, will involve a policy dialogue which supports GRM steps to increase the RF financing available for road maintenance (see Section V). In addition, the financial management of the RF must be improved. Technical assistance has recently been made available under ROCS-2 for this purpose. Serious consideration must also be given to involving road users in the management of the RF and restructuring it into a more independent and secure source of financing for road maintenance and eventual rehabilitation, possibly in conjunction with the creation of an independent "roads authority" in place of DNEP. TA will be provided under RAP to effect improvements in these areas.

OUTPUT INDICATORS: By 2002, financing required for the adequate routine and periodic maintenance of at least 15,000km of rural roads is available from the RF or other GRM sources.

C. Project Inputs: The following inputs will be provided under the project in order to accomplish the outputs described above:

1. Road Rehabilitation Contracts

It is anticipated that 10-12 contracts or grants will be awarded to rehabilitate approximately 1,400 km of priority rural roads, and in the process providing on-the-job training to local private construction companies involved in the roads sector. The procurement of these construction services will be undertaken by DNEP in accordance with USAID Handbook 11, Host Country Contracting (HCC). Assistance in the contracting will be provided by the construction management/engineering services contractor (see Section 3(a), below). Grants to PVOs for labor-intensive rehabilitation will be awarded by USAID (see below).

In order to build the Mozambican private sector road construction capability, contracts will encourage local participation with U.S. and/or international firms in the road rehabilitation work. The target that will be set is for Mozambican road construction firms to undertake 25 percent of the work, by value, over the life of the project. A possible schedule for such an outcome is presented below.

Construction Year 1: Contracts will be awarded to qualified U.S. or regional international firms. Prime contractors will be encouraged to subcontract with qualified private Mozambican construction firms for 5 percent of the work;

Year 2: Contracts will be awarded to qualified U.S. or regional international firms. Prime contractors will be encouraged to subcontract with qualified private Mozambican construction firms for 15 percent of the work;

Year 3: Contracts will be awarded to qualified U.S. or regional international firms. Prime contractors will be encouraged to subcontract with qualified private Mozambican construction firms for 25 percent of the work; and,

Year 4-6: Contracts will be awarded to qualified U.S. or regional international firms. Prime contractors will be encouraged to subcontract with qualified private Mozambican construction firms for 35 percent of the work. In the final construction year, a goal will be to solely award at least one contract to a Mozambican firm.

The capacity of the local road construction industry (LRCI) to undertake this work is discussed in the Technical/Engineering Analysis, Annex D.

Rehabilitation contracts will include, in addition to the normal 90-day warranty period, a one year, post-completion maintenance period. The private Mozambican construction firms involved in each year's work would be responsible for this maintenance work under the supervision of the prime contractor. NOTE: The roads improved during the first year of the project will not be so maintained, since the involvement of local contractors is minmal, and the roads are already being maintained by the local ECMEPs.

Contracts will be packaged to allow completion of rehabilitation work of a particular road segment during one construction season. Although the maintenance period would extend the contract another year, the short contract period would produce discrete results which would stand on their own should future funding availability be an issue.

Total estimated cost: $34.0 million.

2. PVO/NGO Grants

Grants will be made to PVOs, and possibly indigenous NGOs under RAP. These grants, anticipated to cover a two year period at maximum, would be competitively awarded to PVOs working in project areas for labor-intensive, community-based road rehabilitation, maintenance and small contractor development efforts. Other small grants may be made to support the development of innovative solutions to rural roads problems, such as low-cost bridge replacements.

USAID will award grants to PVOs, and possibly indigenous NGOs, to develop community-based lengthmen systems to provide basic routine road maintenance. In this system one or two local people are responsible for a fixed length of the road -- usually 5km on paved roads and 2.5km on unpaved segments. DEPs would plan, control, inspect, and pay for the actual maintenance work using Road Fund resources.

Under RAP, grants will also be awarded to PVOs supporting the parallel development of locally-based, "emerging" small-scale road maintenance and repair providers. Such concerns would be contracted by DEPs to provide both heavy routine maintenance requiring some mechanized equipment, and periodic maintenance, which would require greater mechanization. It is anticipated that the required equipment would be sourced from the equipment pools described below. As with grants for the development of lengthmen systems, these grants would only cover organizational start-up costs, while funds for the maintenance work itself would come from the Road Fund.

If labor-intensive methods are utilized for tertiary roads, it is anticipated that in lieu of contracts to road construction firms, grants would be awarded to PVOs experienced in developing and implementing labor-intensive road opening/rehabilitation programs. Such grants would cover the cost of both the organizational work provided by the PVO, and of labor and material costs directly associated with the rehabilitation. Labor-intensive road rehabilitation efforts would be carried out in under the direction of DNEP and the appropriate DEP, and would follow policies and procedures developed under the successful ILO/UNDP Feeder Roads Program.

Several PVOs have expressed interest in such a program (see Annex K, Social Soundness Analysis).

Total estimated cost: $4.0 million.

3. **Technical Assistance**

a. Institutional Contract

A performance-based institutional contract will be awarded to provide long-term expatriate advisors and local engineers to assist DNEP: (i) prepare plans, bills of quantities, and final cost estimates; (ii) prepare contract documentation and manage the tendering process; (iii) provide construction management/engineering services on behalf of DNEP; (iv) develop and conduct on-the-job training in construction contract management and monitoring for DNEP, DEP, and in the case of contract monitoring, local private sector engineering firm personnel; and (v) assist DNEP and DEPs in project areas to plan for, budget, and ensure the provision of required road maintenance.

An estimated additional 27 person months of short-term TA will assist DNEP in conducting analytical work required in conjunction with the final selection and subsequent impact monitoring of the road segments to be rehabilitated, including economic, social soundness and environmental studies, and in the process train appropriate DNEP personnel in an understanding and appreciation of such work. The contract will also fund and undertake arrangements for regional invitational travel and study tours involving GRM officials, and others involved in the roads sector.

The contract will be for five years, but will include performance indicators and incentives encouraging early contract conclusion after year three.

Total estimated cost: $5.5 million.

b. Short-term

It is anticipated that "buy-ins" to existing Indefinite Quantity/Requirements Contracts will be used to obtain the majority of short-term technical assistance to: (i) design and establish a project impact monitoring system; (ii) oversee development of the methodologies for analytical work required in conjunction with the final selection and subsequent impact monitoring of the road segments to be rehabilitated, including economic, social soundness and environmental studies; (iii) assist DNEP in the development and implementation of a program to increase the involvement of agribusiness and other private sector interests in the provision of road maintenance; (iv) assist the GRM in increasing private sector participation in the management of the Road Fund and in increasing public support for improving road maintenance; (v) design and implement origin and destination surveys; and (vi) conduct special assessments and evaluation(s).

Additional procurements may be undertaken to fill gaps, if identified at a later date, in further developing the capacities of DNEP and/or other road sector institutions. This work may include: (i) assisting the GRM in restructuring of ECMEPs through developing and assessing different options for consolidation and/or privatization; (ii) support to the formation of private equipment leasing concerns; and (iii) improvement of the revenue generating capability of the RF, and assisting in the restructuring of the RF into an independent source of financing road maintenance.

Audit services, if needed, would be obtained through a buy-in into the Audit IQC's that the Regional Investigator General's office in Nairobi, Kenya has in place. Services for the mid-term and final evaluations will also be procured through the buy-in mechanism.

All short-term TA procurement will be undertaken by the RCO posted in Mozambique.

Total estimated cost: $2.0 million.

c. Personal Services Contracts

(i) A Personal Services Contractor will be hired as the Project Manager. This person will work under the supervision of the USDH Project Officer and will be responsible for the day-to-day management and coordination as well as administrative matters pertaining to all the project elements. The PSC will assist DNEP in preparation and contracting of road rehabilitation work for the first year of the project coinciding with USAID procurement of the institutional contract to provide long-term services in these areas.

(ii) A part time (50%) Personal Services Contractor will also be funded under this project. This professional will provide engineering and road rehabilitation oversight and is currently on-board.

Total estimated cost: $1.45 million.

d. Other Technical Assistance

USAID/Maputo will contract with a local firm or individual to assist, along with the PSC Project Manager, DNEP in preparation and contracting of road rehabilitation work for the first year of the project, and the Mission in implementing the project impact monitoring system.

Total estimated cost: $0.3 million.

4. Commodities

a. Support Commodities

(i) USAID will purchase all residential furnishings and equipment, appliances, and computer hardware, accessories and software needed to support the PSC(s) as well as those commodities to be supplied to DNEP and/or other road sector institutions. With the exception of office and computer supplies, no additional commodity support costs are expected to be needed in order to support the part-time PSC. The institutional contractor will procure all commodities to support their in-country staff, including but not limited to residential furnishing and equipment, appliances, office furniture and equipment, computers and accessories and two 4X4, four person utility vehicles.

Costs for these limited commodities are included within the cost estimates for project management and technical assistance indicated above.

b. Road Equipment

(i) A definitive list of commodities to be purchased to support select GRM road sector institutions and NGOs involved with community-based routine maintenance will be developed after a needs assessment is performed. However, it is possible that motorcycles for DEP inspection work, and small tractors, towed rollers and/or pick-up trucks to assist with maintenance may be required.

Total estimated cost: $0.8 million.

(ii) Any commodity procurement, whether support or construction related, under the PVO or NGO grants will be performed by the Grantee with funds from the grant.

(See Procurement Plan, Annex G, and Technical Assistance Plan, Annex M, for further information on all Inputs, including TA draft scopes of work.)

D. **Complementary Activities**: Two World Bank financed credits, ROCS-1 and ROCS-2, have established the framework for addressing both immediate road rehabilitation needs, and the ability of Mozambique to sustain and indeed expand improvements in the sector through strengthened institutional capacity. The rehabilitation component of these projects is progressing well, and progress is being made in strengthening DNEP and DEPs with the help of several resident advisors funded under ROCS-1. Under ROCS-2 this assistance will continue along with new efforts strengthening local level and private sector participation in the roads sector.

RAP will be implemented under the framework of ROCS-2. In its letter of commitment to the World Bank, the GRM confirmed its commitment to a number of sectoral policy reforms and the provision of adequate funding for road maintenance. RAP will contain a covenant to continued project funding highlighting the importance of these steps to the GRM (see Section V, below).

IV Summary Cost Estimate and Methods of Financing

The overall project budget is $70,666,000 of which $53,000,000 will be provided by USAID. The GRM contribution consists of in-kind road maintenance committed to under ROCS-2 valued at $17,666,000. Of the total USAID budget, an estimated $34.0 million will be expended on road rehabilitation.

SUMMARY COST ESTIMATE
($000)

PROJECT ACTIVITIES	USAID	GRM	TOTAL
Road Rehabilitation	33.99		33.99
Road Maintenance		17.66	17.66
Technical Assistance (LT)	5.49		5.49
Technical Assistance (ST)	2.00		2.00
PVO Grants	4.00		4.00
Commodities	0.80		0.80
USAID Project Management	1.45		1.45
Monitoring and Evaluations	0.30		0.30
Audits	0.30		0.30
Contingency	4.63		4.63
TOTAL COSTS	**53.00**	**17.66**	**70.66**

RAP will be funded by USAID's Development Fund for Africa Account. Funding under the regional transportation and infrastructure account is not considered appropriate as the activity will focus on secondary rural roads. Anticipated funding will be incrementally funded over the eight year LOP through annual obligations from authorized Mission OYB, subject to the availability of funds, beginning in FY95 and ending in FY01 as illustrated below.

	($000)
FY95	8,600
FY96	9,000
FY97	9,000
FY98	8,000
FY99	6,400
FY00	6,000
FY01	6,000
TOTAL	53,000

V Conditions and Covenants

Following are proposed project-specific conditions precedent and covenants which have been coordinated with the World Bank under the ROCS-2 program and discussed with DNEP. Upon project authorization, they will be negotiated with the Grantee and contained in the bilateral project grant agreement.

Road rehabilitation will be undertaken in two phases corresponding to USG Fiscal Years 96-98, and 99-01. Each of the individual rehabilitation contracts planned for each phase are expected to be completed within one year. A road work contract begun in FY96 would be completed in FY97, and after the one year maintenance period, would provide one year of GRM maintenance experience to base authorization of phase two contracts.

A) **Disbursement of funds for Phase 1 Road Rehabilitation**:

(1) Evidence that the Grantee has reaffirmed key road sector policies as contained in the "Letter of Sector Policies," signed by the Minister of Finance and Planning, addressed to the World Bank, and dated February 10, 1994.

(2) Evidence that the Grantee will submit, early in Project Year 1, a three-year nationwide road maintenance plan which specifies: (i) the location of roads and number of kilometers to be maintained each year; (ii) maintenance standards, including frequency, applying to basic and heavy routine, and periodic maintenance; (iii) anticipated maintenance providers, including a discussion of the capacity of each; and (iv) annual funding requirements and sources of financing for road maintenance. The plan shall be annually updated to cover the following three year period based on the findings contained in the annual performance of road maintenance report (see next item, below).

(3) Evidence that the Grantee will, beginning in project year two, submit an annual performance of road maintenance report for the proceeding year which reports on the status of scheduling, coverage, funding and technical quality of nationwide road maintenance.

(4) Evidence that the Grantee has adopted and is effectively implementing procedures to facilitate the collection of international road transit charges through sale of coupons, and that revenues so gained are either expeditiously transferred through the Ministry of Finance and Planning to the Road Fund, or paid directly into it.

B) **Disbursement of funds for Phase 2 Road Rehabilitation**:

(1) Evidence that roads rehabilitated under Phase 1 are being maintained at a satisfactory level, or that action under the schedule for such maintenance is progressing satisfactorily.

C) **Covenants to continued project funding**:

(1) The Grantee agrees to conduct economic, social soundness and environmental analyses, in form and substance satisfactory to USAID, of all proposed road rehabilitation activities financed by the Project, and, based on the results of this work, identify appropriate mitigation measures before tendering construction contracts.

(2) The Grantee agrees to establish national policies and procedures to effect improvements in the financing and implementation of road rehabilitation and maintenance efforts.

Illustrative examples of the type of national policies and procedures envisioned under covenant no. 2 are presented below and will be contained in Project Implementation Letter No. 1.

(a) Automatic adjustment of fuel surcharge levels on a quarterly basis in order to retain their value in real terms;

(b) Direct payment of fuel surcharge revenues into the Road Fund, rather than first passing through the Ministry of Finance and Planning;

(c) Separation of petrol and diesel surcharges from the national tax regime in order to reinforce their character as a road user charge and not a tax. Direct all collected petrol and diesel user charges into the Road Fund;

(d) Gradually increase the diesel surcharge to the equivalent of \$.10 cents per liter, the level recommended by the World Bank as generally sufficient in African countries to provide adequate financing for road maintenance;

(e) Restructuring of central government activities related to road construction and maintenance, including establishment of a semi-autonomous national road authority and devolution of authority and resources to regional, provincial and/or district levels;

(f) Revising regulations and procedures to encourage the formation and participation of private sector road construction, maintenance and equipment leasing firms;

(g) Revising regulations and procedures to encourage participation in routine road maintenance by community-based and non-profit private entities;

(h) Adding private sector road user representation to the governing board of the Road Fund;

(i) Taking all reasonable measures to ensure that the prices of raw materials, including but not necessarily limited to gravel and bitumen, used in the rehabilitation and maintenance of roads funded by the Project are competitively determined;

(j) Agreeing that funds contained in the Road Fund will first be utilized for financing required road maintenance, and only if there are additional resources available will road rehabilitation and new construction be financed.

The rationale for using an illustrative rather than prescriptive approach to project covenants is presented below.

The World Bank, as lead donor in the roads sector, has established the overall policy framework under the ROCS-2 project. The GRM Letter of Sector Policy established the basis for Phase 1 of ROCS-2 (1994-95). All of the actions outlined above are mentioned in the letter or other World Bank project documents. However, there is no explicit policy conditionality binding the GRM to specific actions, although there is a commitment on behalf of the GRM to fully fund all routine maintenance by 1996 and an increasing proportion (rising to 100 per cent in 2000) of periodic maintenance of all roads improved under ROCS-2, including those under RAP.

Thus, the World Bank and by extension USAID have agreed to the ends, while leaving the means to the discretion of the GRM. The rationale for this approach is that several of the possible steps have potentially significant macroeconomic and/or political consequences. The timing and combination of their application is a sensitive task closely linked with national socio-economic considerations. The Bank and the Project Design Committee feel that flexibility is important for the GRM to ultimately take the necessary steps. Phase 2 (1996-98) of ROCS-2 will depend on the results of a major World Bank review of the activity in September 1995. The Bank has indicated to the Mission and the GRM that lack of measurable progress, especially with regards to the amount of funding flowing into the Road Fund, at this point could result in a scaling back of the road rehabilitation component of ROCS-2 financed by the Bank which would require a GRM contribution.

The PDC prefers a somewhat flexible covenant rather than explicit CPs which could unnecessarily disrupt project implementation. However, as noted above, the ends, i.e., the maintenance of roads rehabilitated under RAP, is explicitedly covered by CPs linked to each phase of the project. The message to the GRM is clear: if previously rehabilitated roads are not adequately maintained, funding for further rehabilitation will not be disbursed. However, if deemed necessary at a later date to reinforce this message, additional CPs can be included in the grant agreement when it is amended to obligate additional funding.

VI Implementation Arrangements

A. Obligating Instruments: The activity will be obligated through a Handbook 3 bilateral grant agreement with the Government of the Republic of Mozambique, represented by the Ministries of Foreign Affairs and Cooperation, Planning and Finance, and Public Works and Housing (MOPH).

B. Implementing Institution: The host country institution that will implement this activity is the National Directorate of Roads and Bridges (DNEP). DNEP is one of the four Directorates under the MOPH, and consists of five departments and three divisions, with an authorized staffing level of 369 employees. At the provincial level there are Provincial Directorates of Public Works and Housing (DPOPHs) that report to the MOPH. Within each DPOPH, there is a Department of Roads and Bridges (DEP) which has operational and performance ties to the DPOPH, but technical ties to DNEP. The DEPs in the provinces where roads to be rehabilitated under RAP are located will be involved with implementation through their responsibility for construction supervision. At the provincial level a semi-autonomous construction company, the Enterprise for Construction and Maintenance of Roads and Bridges (ECMEP), has until recently contracted for all of the road maintenance within the province. ECMEPs are the subject of a major restructuring as a significant part of the responsibility for maintenance shifts to private sector contractors, and may be a beneficiary of TA under RAP.

There is currently a ROCS-financed "General Consultant Team" of eight expatriate specialists supporting DNEP in the areas of planning, investment, maintenance, design, construction, and finance. The team is scheduled to depart in October 1995, but an extension is under consideration by the World Bank. Other resident advisors are stationed in the provinces with DEPs, and additional long-term TA is being offered under ROCS to the Local Road Construction Industry (LRCI). Consultants are also working on the restructuring and possible privatization of ECMEPs, the related issue of privately operated road equipment pools, and the administrative strengthening of the RF.

(See Annex H, Technical and Engineering Analysis, and Annex I, Institutional Analysis, for further information.)

C. Procurement Arrangements: The authorized source, origin and nationality of goods and services procured under RAP is the United States/Special Free World (Geographic Codes 000/935). In accordance with Buy America guidance, procurement of U.S. source/origin and nationality goods and services will first be sought before resorting to Special Free World suppliers. Project financed goods and services will be procured in accordance with relevant USAID Handbooks, USAID Acquisition Regulations, and the Federal Acquisition Regulation as applicable. Local and host country procurements will be carried out in accordance with Handbooks 1B and 11, respectively. The Host Country Contracting Agency (HCCA) will have been certified by the RCO and Mission Pre-award team to qualify to issue HCCs. The HCCA will comply with the Agency's rules and regulations for Gray Amendment procurement, as will all procurement under the Activity.

Procurement under RAP will involve several contracting modes as illustrated in the Table on the following page.

PROCUREMENT ACTION	SOURCE/ ORIGIN	EST'D. VALUE ($000)	METHOD OF PROCUREMENT
Const. Mgnt. & Eng. Services	000/899	5,487	Competitive USAID Direct
- LTTA		4,956	
- STTA		381	
- Regional Tours		150	
Road Rehab. Contracts and Grants (9)	935	33,990	HCC/USAID Grants
USAID Project Mgnt.	000/935	1,447	USAID Direct (PSC)
- Project Manager		1,083	
- Asst. PM		364	
Short-term TA	000/935	2,000	IQC/USAID Direct
- Monitoring System (5)		1,000	
- Analytical Work TORs (5)		50	
- 1st Year Design/Eng. (6)		200	
- TBD		750	
PVO/NGO Grants	000/935	4,000	Competitive grants
Evaluations	000/935	300	IQC/USAID Direct
Audits	935	300	IQC
Commodities	000/935	800	USAID Direct

1) Procurement of the required multi-year construction management and engineering services will involve a competitively awarded USAID-direct cost reimbursement, completion, performance-based type contract. A minimum of 10 percent of the value of the contract will be subcontracted to a Gray Amendment eligible firm.

2) Contracts will be solicited under International Competitive Bidding procedures by DNEP for all road rehabilitation work. All such work will be implemented through USAID Handbook 11, Chapter 2, "Host Country Contracting, Procurement of Construction Services." Under RAA, emergency road rehabilitation performed by insufficiently qualified contractors resulted in substandard work requiring remedial efforts. Greater attention will be paid, and more time granted to contractor pre-qualification and selection under RAP, than under its predecessor project, RAA.

The USAID/W ECPR Guidance Cable (94STATE 317010) noted concurrence with the Mission's programmatic reasons for dividing the construction procurement into several small contracts, i.e., the small contracts approach will (1) permit Mozambican construction firms to compete and develop their capacity in road rehabilitation; and (2) facilitate a program which links the letting of contracts to GRM compliance with policy conditionality, particularly regarding road maintenance.

Rehabilitation contracts will be let on an annual basis and involve roads within distinct geographic areas. Work will begin with the roads initially rehabilitated under RAA (in the central portion of the project area) and proceed south and north in subsequent years of the activity. This arrangement will also facilitate construction management and supervision. Fixed Rate Contracts will be used for this work. A rapid appraisal of the required work for each road segment was conducted by USAID consultants as part of the PP preparation. This work will be verified and a proposed Bill of Quantities (BOQ) and other contract bid documentation prepared for each final road segment by the construction management and engineering firm contracted under RAP.

The ECPR guidance asked that the Mission carefully document the extent to which U.S. construction firms express interest in competing for rehabilitation contracts. Due to significant mobilization/ demobilization costs, U.S. construction firms are generally not interested in contracts with a value of less than $5 million. In Construction Year Two, road work estimated to cost $9 million is anticipated, while in Year Three, a $7.3 million contract is planned. As in Construction Years 1-3, contracts will be rewarded to international firms, which will be required to subcontract Mozambican construction firms for 5 percent of the rehabilitation work in Year 1, 15 percent in Year 2, 25 percent in Year 3, and 35 percent in Years 4-6. It is hoped that in the final construction year at least one smaller contract can be awarded solely to a Mozambican firm.

3) Short term TA will be procured from the U.S. and locally through USAID Direct Procurement using IQC delivery orders and informal competition. The former will support, *inter alia*, the development of the project impact monitoring system, and development of methodologies for the analytical work preceding final road selection. Informal competition will be used by USAID to procure the services of local/regional consultants that will assist with undertaking periodic project impact monitoring, design and implementation of origin and destination survey(s), and providing assistance to DNEP in the preparation and contracting of work in the first year of the project.

4) Additional procurements include PSC project manager and assistant project manager, final evaluation, audits (if required), and USAID Direct Procurement of a limited amount of commodities.

(See Procurement Plan, Annex G, for further information.)

D. <u>Project Management</u>: The activity will be managed by the Capital Projects Division of the Office of Project Design and Management (PDM/CP). PDM/CP has over five years of experience with large capital projects and is headed by a USDH Engineering Officer who reports to the Project Development Officer head of PDM. The current road rehabilitation activity (RAA) is managed by the Engineering Officer and a PSC engineer, both on a part-time basis. The activity's implementation will also be backstopped by a USDH Project Development Officer in PDM's Division of Project Design and Support. Although it is anticipated that all positions will be maintained over RAP's LOP, a full-time PSC Project Manager is required in addition.

The Mission currently has 16 USDH positions, including sufficient USDH staffing in the Project Design and Management, Controller and Program offices to implement the activity. In addition, the Mission has been authorized to add a Regional Contracting Officer position, which should be filled by the time initial obligations are made under RAP. This, together with regional procurement and legal services, will be adequate to implement the activity.

E. <u>Monitoring, Evaluation and Audits</u>: Monitoring will be conducted at several levels under the activity. First, Goal, Purpose and Output level indicators will be measured and tracked in a project impact assessment system (PIAS) developed by consultants for the Mission in the first year of the activity. This work will include the identification of indicators, benchmarks and baseline data needs for measuring economic, social and environmental impacts. Possible socio-economic indicators include household expenditures (as a measure of income), agricultural production and productivity, diversification of income sources, increased vehicular traffic, market participation including sale of agricultural surpluses and purchase of consumer goods and services, use of social services such as health clinics, decrease in child mortality, and levels of community participation.

Environmental monitoring will focus on the indirect impacts of the rehabilitation and the effectiveness of mitigation measures. Further information on environmental monitoring can be found in the Environmental Analysis, Annex L. All information from the monitoring system, which will be gender desegregated as appropriate, will be fed into the Mission's PIR process, and be integrated into the portfolio-wide performance evaluation system linked to the Mission's Strategic Objectives.

At the Goal and Purpose levels, actual baseline data for the system will be collected over time as representative road segments are analyzed from social soundness and economic perspectives prior to their final selection. (Baseline data for Construction Year 1 roads will be collected immediately following the development of the PIAS.) Periodic impact surveys will then be conducted after the completion of rehabilitation work on these segments, and thus allow a comprehensive, "before and after" assessment of impact. In addition, to the hypothetical "with and without" exercise run as part of the initial economic analysis of each proposed road segment, for each representative road segment which is rehabilitated, a similar road segment that is not will also be periodically surveyed, thus permitting an actual "with and without" impact assessment over time.

The Outputs relating to institutional and financial strengthening in the roads sector will also be monitored by the Mission and included in the project information system. For example, the Host Country Contracting Assessment will be updated on a periodic basis, and the results used, if needed, to modify TA which is offered. On still another level, project monitoring will involve physical progress in road rehabilitation contract work. This monitoring will solely be the responsibility of the main consulting engineering firm.

Additional impact information may be obtained from the new PVO Support II activity, which will be targeted at many of the same geographic areas and whose PVO-implemented sub-activities will benefit from rural road rehabilitation.

The final evaluation will assess achievement of the activity's Goal and Purpose as well as its contribution to the Mission's Strategic Objectives. The evaluation will specifically address the "lessons learned" that may be applicable to related USAID and GRM efforts. In addition to the ongoing monitoring and final evaluation, special assessments may also be conducted, as needed, of specific issues or implementation problems in order to offer timely analysis and the basis for resolution. Given the intensive impact and progress monitoring under RAP, the need for a midterm evaluation will be assessed at the end of Project Year Three.

See Annex E, project monitoring and Evaluation Plan for further information.

USAID may conduct periodic non-federal audits of any and/or all parts of the activity. Funding for such audits, to be performed through a RIG/Nairobi NFA IQC is included in the budget (see Annex D, Financial Plan and Detailed Cost Estimate).

F. Key Implementation Actions and Schedule:

Key implementation actions for the first twelve months of the activity are outlined in Annex F, Implementation Plan and Schedule, for major project elements. Absence of a particular element in the period indicates that no additional key actions involving that element are required. The anticipated implementation schedule is based upon the following initial actions:

- PIO/T for LT Technical Assistance Completed	5/30
- PIO/T for design and contracting STTA for Year 1	6/15
- PIO/T for RAP Project Manager completed	6/30
- Project Authorized	7/21
- Project Agreement Negotiated and Signed with GRM	7/31

VIII Analytical Considerations

A. Technical/Engineering: The Technical/Engineering (T/E) analysis (see Annex H) consists of work conducted by a team of engineers fielded by the Morrison Knudsen Corporation (the Consultant) under a PD&S-funded IQC delivery order. This work also contributed to the institutional and financial analyses, as described below.

(1) Consultant Scope of Work:

- Identify, prioritize and prepare cost estimates for roads to be rehabilitated.
- Perform an institutional analysis of the:
  - National Directorate of Roads and Bridges (DNEP).
  - Provincial Departments of Roads and Bridges (DEPs).
  - Enterprises for Construction and Maintenance of Roads and Bridges (ECMEPs).
  - Local road construction industry.
  - Formation of equipment leasing pools.
- Evaluate road maintenance requirements and Road Fund's capacity to fund maintenance.
- Recommend technical assistance and training to be provided under RAP.

The Consultant report's executive summary is utilized below to present the main findings of the T/E analysis (see Annex H for the full Consultant report, and project files for the report annexes).

(2) Recommended Road Rehabilitation Program: Selection criteria required project areas to have high agricultural potential and a significant population, and project roads, once rehabilitated from their current poor condition, to provide all-weather links to the national highway network. Based on these criteria, site visits, and meetings with USAID, DNEP, DEPs, aid organizations and other concerned groups, approximately 1,500 kilometers of roads were identified for rehabilitation in the Provinces of Sofala, Tete, Zambezia and Nampula, with some short sections located in Manica Province. The list of these roads, indicating length, recommended rehabilitation standard and cost, and implementation priority is shown below.

Initial List of Roads Proposed for Rehabilitation under RAP

Road Section	Length (km)	Standard	Cost (US$ mil.)	Year
Mutarara-Doa-Cambulatsitsi	247	Gravel	3.5	1
Mutarara-Vila Nova da Frontiera	42	Gravel	0.5	1
Inchope - Gorongosa	70	Paved	4.1	1
Gorongosa - Nhamacolomo	97	Gravel	3.1	2
Nhamacolomo - km 13 from Caia	107	Gravel	6.3	2/3
km 13 - Caia	13	Paved	0.6	1
Caia-Sena	60	Gravel	0.8	1
Sena-Chemba	40	Gravel	0.1	1
Chemba-Tambara	90	Gravel	3.2	2
Morrumbala-Derre	75	Gravel	2.7	3
Pinda-Milange	205	Gravel	7.5	3
Ribaue-Lalaua	77	Gravel	2.6	4
Malema-Vacha-Molocue	106	Gravel	2.7	4
Iapala-Vacha	83	Gravel	3.8	4
Netia-Nacala Velha	82	Gravel	2.5	4
Cava-Nampuecha-Alua-Muhula	126	Gravel	4.2	4
Total	1,506	Total	48.2	
		Inflation	5.4	

Grand Total	53.6

NOTE: The Chemba-Tambara road segment was subsequently removed from the tentative list due to cost considerations and doubts as to whether it met all the selection criteria. As a result of further investigation, the proposed route from Gorongosa to Caia was changed to travel via Inhaminga (see Annex R, "Report on Field Trip to Gorongosa and Surrounding Area."

(3) Road Maintenance Considerations: DNEP's maintenance strategy and methodology under ROCS consists of performing basic routine, heavy routine, and periodic maintenance on roads that have been rehabilitated or are in good or fair condition. Maintenance work is described, planned and controlled by means of a set of performance standards. DNEP's general policy is to perform road maintenance by contract.

At present, all routine and some periodic maintenance is performed by ECMEPs. There is currently very little private local contractor participation in road maintenance. Some international contractors have been engaged to perform periodic maintenance. It is planned that the restructured ECMEPs would handle 20-40 percent of the routine maintenance. Contractors would perform 80-85 percent of periodic maintenance and 40-60 percent of routine maintenance. Around 40 percent of basic routine maintenance could be performed by village groups using a "lengthman system."

Year 1994 and 1995 routine maintenance plans and activities in Sofala, Tete, Zambezia and Nampula Provinces (within which RAP roads would be located) are shown below.

Summary of Routine Maintenance Activities in the RAP Project Area

	Road Network (km)	Planned 1994 Maintenance (km)	Actual 1994 Maintenance (km)	Planned 1995 Maintenance (km)
Grand Total	15,260	2,900	1,500	3,405
Total Paved	2,627			1,263
Total Unpaved	12,633			2,142

The figures for 1994 are approximations derived from figures reported in DEP interim progress reports. These figures have not yet been verified by DNEP. Nevertheless, even if approximate, the 1994 data show a large shortfall in maintenance performed. This deficiency has been reportedly due to a late start because of excessive rains at the beginning of the year (and presumably the diversion of resources to repair road damages), ECMEPs' operational difficulties and payment delays, and shortages of funds towards the end of the year which lead to the cancellation of some projects. The situation has somewhat improved this year, with ECMEPs concentrating most of their resources on routine road maintenance.

Road maintenance equipment and personnel resources estimated by the Consultant to be required to perform maintenance activities planned for 1995 were compared to the available resources in the four Provinces. It was found that ECMEPs have a surplus of heavy equipment but insufficient numbers of tractors, trailers and other light equipment that would be more appropriate for labor based routine maintenance.

Since routine road maintenance is mainly labor-intensive, ECMEPs should augment their pool of tractors and light construction equipment. Tractors are versatile and ideally suited to support light road activities. They can be used for transportation (with trailers), grading (with towed graders), watering (with water tank trailers) and compaction (with towed rollers). Establishing a permanent system of lengthmen recruited from villages along a road would reduce ECMEPs' transportation and labor requirements.

The amounts budgeted for routine maintenance in the Provinces of Sofala, Tete, Zambezia and Nampula totaled 11.3 billion Meticais (MT) in 1994 and 12.5 billion in 1995 (Jan. 1994 exchange rate US$1 = 5,000 MT, and Jan. 1995 rate US$1 = 7,000 MT). Some 1994 funding allocations were reduced in the last quarter of 1994. (In order to evaluate the adequacy of the 1995 budget, it was compared with an overall estimate, prepared by the Consultant, of the cost to perform an appropriate minimum level of routine maintenance on the road lengths scheduled to be maintained. ECMEPs' unit prices were used in the Consultant's estimate. This comparison indicated that the budgeted amounts might be less than 80% of required amounts.)

The need in subsequent years to perform routine and periodic maintenance on a longer road network, after their rehabilitation, would require major increases in DNEP's maintenance budgets.

(4) Technical Assistance Recommendations: The engineering consulting services required for road rehabilitation and other TA services that RAP could provide to strengthen in-country road sector capabilities are summarized below.

(a) Engineering Consulting Services: RAP would require engineering consulting services for the following tasks:

- Finalization of the road rehabilitation program.
- Preparation of feasibility studies, engineering designs and tender documents.
- Provision of assistance to DNEP for contractor selection and negotiations.
- Supervision of rehabilitation works and contract administration.
- Preparation of progress reports on physical and financial project implementation.

The RAP engineering consulting team (the RAP Engineer) should include a Project Coordinator to coordinate activities with concerned Departments of DNEP, DEPs and other road programs.

(b) Recommendations for Technical Assistance, Training and Other Support Activities: The current TA personnel at DNEP and DEPs funded by the World Bank and other donors appear to be sufficient. However, the Consultant recommended the following TA be considered under RAP. **NOTE:** In addition to those recommendations that have been accepted by the Mission (RAP), a few others have been acted upon by other donors (DNR), while others have not been acted on (TBD).

USAID should consider sponsoring a road maintenance study, initially focusing on RAP roads but that could be expanded to cover wider road networks (DNR). A study to establish an appropriate Management Information System (MIS) for DNEP and DEPs could also be assisted under RAP (DNR). These studies should be coordinated with the consultants of DNEP and DEPs to avoid duplication and "reinventing the wheel".

It is expected that an upcoming study on the establishment of an autonomous Road Authority would examine in depth the organization of DNEP and DEPs and make recommendations for restructuring and improving work procedures. USAID should evaluate the recommendations of that study and consider providing TA to implement some of them (TBD).

The RAP Engineer should provide on-the-job training for DEP inspectors and other personnel during supervision of construction work (RAP). RAP rehabilitation contracts should require contractors to provide transportation and accommodation for DEP inspectors (RAP). USAID should also consider providing additional logistical means for DEP inspectors, such as motorcycles and miscellaneous items (RAP).

RAP should consider providing long-term TA to restructured ECMEPs, particularly those that would be responsible for maintaining RAP rehabilitated roads (TBD). TA should concentrate on business management, equipment management, spare parts inventory control, financial management, cost accounting and work management. For the ECMEPs that would be responsible for maintaining RAP roads, USAID should consider procuring light equipment, such as small tractors, trailers, towed graders, towed rollers, water tank trailers and pickup trucks, and spare parts (TBD: Some such equipment to be used by community-based maintenance providers could be funded by PVO grants.)

RAP international contractors should be required to subcontract part of their work to local firms, and provide technical assistance to them during execution (RAP). RAP road rehabilitation contracts should require contractors to perform maintenance on completed roads for at least one year after their rehabilitation (RAP). This activity would probably be performed by their local subcontractors. USAID should also consider packaging some road rehabilitation works into small contracts suitable for awarding to small or medium sized local contractors (RAP). These contractors should receive technical assistance from the RAP Engineer during supervision of construction.

RAP should assist local village groups participate in basic road maintenance as lengthmen, by providing hand tools and technical assistance through NGOs or PVOs, who have substantial experience working with rural communities (RAP).

USAID should monitor the finalization of the study on the formation of equipment pools (PERCs), and exert the necessary pressure to accelerate GRM and DNEP decision making on various issues. In consultation with other ROCS donors and DNEP, USAID should consider funding TA services to assist DNEP prepare tender documents, identify and select potential private sector investors, and negotiate contracts for equipment pool formation (TBD). If major delays are experienced in setting up joint ventures for PERCs, different arrangements for initiating them should be considered.

USAID should assist in implementing the ROCS Training Program (DNR). RAP could: sponsor some of the RTTC courses; finance course attendance costs for selected DNEP, DEP, ECMEP and local contractor personnel; sponsor some courses or seminars in Maputo, Beira, Tete, Quelimane and Nampula to make it easier for residents of these areas to attend; and procure training aids and materials for RTTC, such as audiovisual equipment and videotapes.

B. Economic: Experience from other countries has shown that road rehabilitation similar to that proposed under RAP usually generates an economic rates of return (ERR) of at least 30 to 40 percent. Under ROCS-2, to ensure that all rehabilitation work will be economically viable, standard criteria to screen the selection of roads based on anticipated costs and benefits have been developed. These criteria will serve as the basis for the economic analysis conducted of each proposed road segments under RAP.

Economic analyses will be performed on a "with" and a "without" basis to serve as a guide to project implementation and to determine an optimum phasing and timing of works. The decision making indicators will include internal rate of return, net present value and first year benefit-cost ratio. Benefits will derive from: (i) reductions in Vehicle Operating Cost (VOC), which in turn translates into lower transport costs involving, for example, the movement of agricultural goods and inputs; (ii) reduction in maintenance costs; and (iii) quantifiable secondary benefits including stimulation of economic activity and productivity in areas with prior limited access (including isolation in the rainy season), and time savings involving, for example, reduced spoilage and losses caused by lack of timely transport. Costs used in any economic analysis of road rehabilitation include, in addition to the cost of the work itself, routine and periodic maintenance at a level sufficient to ensure that estimated VOC savings from improved surfaces will indeed be realized. In order that the analysis adequately reflects "with" and "without" scenarios, VOC will be calculated and compared for road conditions associated with frequent deceleration and acceleration, and relatively constant operating speeds in the 50-80 kph range.

Using this economic model, a few "sample" roads were analyzed and in the case cited in the ROCS-2 Staff Appraisal Report yielded an ERR of 174%. Under the ROCS-2 Feeder Road Program the ERR for a "typical" 100km stretch of road was estimated to range between 145% with a vehicles per day (VPD) usage of 100, and 14% at a VPD of 20.

It is important to note that average daily usage on most of the roads considered under ROCS-2 (and RAP) is very low at present, certainly less than 100 VPD. Although the security situation continues to improve, the poor condition of the roads themselves discourages their use. Therefore, the most important variable in determining the economic viability of a particular road segment is the assumed rate of recovery of traffic. The ROCS economic model assumes that the VPD count will return to historic (1975) levels within three to five years after completion of rehabilitation, and then grow at moderate rates typical of those in the Southern Africa sub-region. Refined assumptions in reality need to be made based on actual potential for economic activity associated with renewed access.

Under RAP, economic analysis will be conducted of proposed road segments examining, in addition to VOC benefits, increased farm gate prices and increased agricultural production associated with road rehabilitation. The first measure, increased farm gate prices, is potentially significant. Due to the very poor condition of many roads, transport costs are extremely high; indeed, a 1993 survey found that world market prices of several key agricultural products barely covered Mozambican production/transport costs. The World Bank 1989 Mozambique Transport Sector Review found that the VOC associated with "current" earth roads was, on average, three times higher than the same measure on good quality earth roads. Rural road conditions have further deteriorated since that year. Lower transport costs could directly translate into higher farmgate prices (assuming a viable, competitive trucking industry, GRM price liberalization, etc.). Agricultural production should also increase as farmers conclude that surpluses can be marketed, while agricultural productivity will be enhanced through greater access to inputs. (See Annex S for a recent newspaper report on the constraints to commercialization of agricultural products caused by poor roads and bridges in areas of Nampula to be covered by RAP.) Other factors that will be considered in the analysis include opportunities for increased agricultural marketing, the intensity and type of agricultural production in the road use zone, and potential traffic volume.

Terms of reference for this type of analysis are included in Annex E, Project Monitoring and Evaluation Plan. It will be used as the basis for preparation of a final SOW by consultants during the initial months of the project. The analysis work itself will be undertaken by the long-term U.S. "institutional contractor," possibly assisted by local consultants. Following ROCS-2 guidelines, no rehabilitation work will be funded by RAP for road segments with an ERR of less than 20 per cent. If higher ERRs are encountered, they will be used, along with the results of social soundness assessment and environmental impact review, to prioritize the rehabilitation work.

C. Financial:

The general objective of a project design financial analysis is to determine if proposed activities, in this case road rehabilitation, institutional strengthening, etc., can be accomplished with the resources available under the project. A specific objective of the analysis performed for RAP was to determine if proposed road rehabilitation can be adequately maintained by the GRM given the resources required, during the LOP and immediately following the PACD.

The analysis, conducted by the Financial Analysis Division of the Mission's Office of Financial Management, found that financial resources required by USAID to implement the project will be available, and on a timely basis, as currently planned. The financial analysis also found that under current circumstances it is unlikely that the GRM would have the resources required to adequately maintain roads rehabilitated under RAP, as well as other road projects under ROCS-2. However, based on several policy change scenarios concerning the amount of revenue that could be generated by the GRM for road maintenance, sufficient resources would be available to meet all anticipated obligations under ROCS-2, including RAP. These policy reforms are contained, as illustrative examples, in the proposed project covenants (see Sec. V.D-2).

Whether these assumptions prove to be valid depends upon what actions are, or are not, taken by the GRM. Under ROCS-2, the World Bank gained agreement from the GRM that resources required for maintenance would be provided on a timely basis. Over the life of ROCS-2 this sum totals an estimated $111.7 million. Under the current scenario, it is all but certain that the GRM will not have the resources required to adequately maintain roads rehabilitated under RAP, as well as other roads improved under ROCS-2. ROCS-2 assumes that this funding will come from the GRM Road Fund, but the Bank did not proscribe what specific actions the GRM should take to ensure that revenues generated by the Fund would be sufficient. USAID will, in line with the Bank's approach, identify and encourage (rather than direct) specific steps to be taken by the GRM to help ensure that revenues generated by the Fund would be sufficient. The anticipated results on revenue generation of such steps is illustrated in the Financial Analysis (see Annex J), and the steps are discussed in Section V. The following table illustrates the maintenance requirements and levels of RF resources anticipated to be available under RAP.

(1) Road Fund Operations: The objectives of the Road Fund are to finance routine and periodic road maintenance, and as under ROCS-2, a portion of the GRM contribution for donor-sponsored road rehabilitation projects. The Fund's primary sources of revenue consist of road user charges, including fuel surcharges, international transit charges and bridge tolls. At present 80 percent of diesel fuel surcharges and 60 percent of surcharges on gasoline are allocated by GRM to the Road Fund.

GRM financing requirements for RCOS-2, expressed in US Dollars, have been estimated by the World Bank and GRM to be as follows.

GRM Financing Requirements for ROCS-2 (US$ Millions)

Year	1994	1995	1996	1997	1998
Amount	18.9	26.8	34.4	39.5	42.4

Road Fund 1994 revenues were US$14.2 million (8.1 million from fuel surcharges, 6.0 million from transit fees and 0.1 million from bridge tolls), instead of US$19 million as had been projected. Some of the shortfall in revenues might have been be due to collection difficulties. It has become apparent, however, that existing sources of revenue are insufficient to meet the Fund's growing requirements.

Existing recommendations to increase revenues and improve collection procedures are:

- Indexing fuel surcharges and bridge tolls to keep pace with inflation.
- Increasing the real price of diesel fuel, which is low by regional standards.
- Increasing fuel surcharge allocations to the Road Fund.
- Introducing a national heavy vehicle licensing fee.
- Levying temporary road rehabilitation surcharges.
- Fuel surcharges to be paid directly by the importer to the Fund at the time of importation.
- Collecting transit fees through sale of coupons issued by the Road Fund.
- Streamlining bridge toll collection.

GRM decisions on a few of the above proposals are expected shortly. USAID and other donors should encourage GRM to increase road user charges, particularly fuel surcharges, to ensure that revenues would be adequate to fund an appropriate level of maintenance. Donors should monitor Fund revenues and, if these do not meet expectations, consider scaling down the road rehabilitation program to levels that are sustainable. To ease GRM's financial burden, donors could consider relaxing requirements for GRM's contribution to road rehabilitation projects, thus providing more funds for road maintenance.

Provisions should be made for the participation of the private sector in the Road Fund's oversight. This would help get road user support or at least understanding and acceptance of increased fuel surcharges and other levies. A public media campaign to stress the importance of an adequate road transport infrastructure could also be undertaken, perhaps with donor assistance. Decentralization of the Road Fund's planning, budgeting, revenue collection and disbursement operations should also be considered. These functions could gradually be transferred to provincial authorities, thus reducing delays in processing and payment of invoices.

D. Institutional Analysis/Host Country Contracting Assessment:

(1) National Directorate for Roads and Bridges and Departments of Road and Bridges: DNEP is responsible for road planning, construction, rehabilitation and maintenance on a national level, including: preparation of road rehabilitation and maintenance programs, studies and budgets; engaging contractors and ECMEPs (the latter are engaged through Provincial Departments of Public Works and Housing (DPOPH)); providing overall supervision of road construction, rehabilitation and maintenance activities; and processing payments to contractors and ECMEPs. DNEP also administers the Road Fund. DEPs are responsible for road activities at the provincial level. Their main functions are to assess physical road conditions, draft programs and budgets for road maintenance and rehabilitation, and supervise and monitor works carried out by contractors and ECMEPs.

DNEP and DEPs have been experiencing staffing shortages. For example, the current DNEP staff level is only about 40% of the authorized level, due primarily to budget constraints, the inability to attract and retain qualified staff due to higher professional salaries outside the government, and previously at least, a lack of qualified candidates to fill some of the vacancies that are funded. As part of the human resource development component of ROCS, DNEP has recently taken aboard a large number of newly graduated engineers and given them significant responsibility. The ROCS-funded LT resident advisors are assigned an advisory role to this new cadre, most of whom have no previous practical experience. The benefits from this recruitment will not fully accrue until they have had a number of years in service, assuming they stay with the GRM in lieu of a financially attractive position in the private sector.

Many of the engineers and technicians working at DNEP and DEP have limited experience. Many DEP inspectors are also inexperienced. DEPs have also been hampered by lack of sufficient vehicles, motorcycles, and other supplies necessary to properly perform field surveys and supervise work done by ECMEPs and contractors. Several activities are taking place, with ROCS support, to address the shortage of qualified staff at DNEP and DEPs. There is an on-going program of providing scholarships for university studies in-country and abroad and of recruiting graduates to fill vacancies. A training center has been established at Chimoio (RTTC), where DNEP and DEP staff would receive classroom and practical training on various subjects. This training program is also open to ECMEP and local private contractor personnel. A program of providing subsidized housing for DNEP personnel is also in place.

ROCS has been funding TA services of a General Consultant to DNEP, who currently has a staff of nine. Technical assistance provided to DEPs under

ROCS includes one Engineering Advisor per province, one Materials Engineer in the south and central regions (based in Maputo and Beira respectively), and one Team Leader based in Maputo. TA staff, in addition to providing advice and technical assistance, are used as line personnel, i.e. doing actual work to cover for the present lack of sufficient qualified staff at DNEP.

DNEP, assisted by the General Consultant and project-specific consultants, has been able to administer rehabilitation contracts successfully. There have been problems, however, with the processing and payment of local currency invoices due to the long time taken to process invoices and to shortages of funds. Another problem is the lack of a proper management information system.

A significant concern for the activity is that DNEP's management is heavily centralized -- almost all decisions are made by the National Director. Prior to the Rural Access Activity, the Financial Analysis Division of the USAID Office of Financial Management conducted an assessment of whether DNEP was capable of independently handling procurement and contracting activities. Its findings were that TA was required by DNEP to ensure that procurement regulations were adhered to. The TA provided under RAA and by the ROCS-funded General Consultant to DNEP has been crucial to DNEP in complying with USAID Handbook 11 procurement, as well as in providing an assurance of financial controls. Under RAA, seven separate contracts all valued at more than $2.0 million each were tendered and awarded by DNEP in less than six months with the assistance of a USAID-funded consulting engineering firm.

In spite of these advances, a reassessment of DNEP's HCC capability completed by the Mission's Financial Analysis Division concluded that TA was still required (see Annex I). An explicit RAP output indicator will be DNEP's ability to carry out procurement in accordance with USAID Handbook 11 without continuing TA.

(2) Enterprises for Construction and Maintenance of Roads and Bridges (ECMEPs): ECMEPs are quasi-governmental organizations, whose main responsibilities have been road maintenance and feeder roads construction, under contracts with DPOPHs. Their work is supervised by DEPs. ECMEPs have received very limited TA under ROCS, on a part-time basis from advisors to DEPs.

In general, ECMEPs' have been reported to produce relatively satisfactory work but have been able to only complete about 60 to 70 percent of their contract work. ECMEPs are weak in work planning and management, equipment management, and cost accounting. They have shortages of qualified staff, and the literacy level of most personnel is low (reportedly, less than 25 percent have primary school education). ECMEPs' mechanical repair facilities are often not properly equipped, inventory control is inadequate, and they have significant problems purchasing spare parts due to unavailability of equipment dealers in most provincial centers. In addition, the unit rates which DNEP sets for the ECMEPs seem low, and ECMEPs' invoices are paid late.

There are plans to restructure ECMEPs into autonomous entities. These restructured enterprises would operate on a wholly commercial basis and undertake road maintenance work. The study on their restructuring has not been finalized yet. Preliminary reports suggest that it is planned to form three ECMEPs, in the south, center and north of the country. DNEP has requested TA under RAP to assist in the restructuring of the ECMEPs.

(3) Local Road Construction Industry (LRCI): Most local private contractors have been engaged in building construction. A study prepared in 1993 indicated that only few, relatively large, local private contractors had some road construction experience. This situation is still largely true today.

A key objective of ROCS-2 is developing a road construction and maintenance capacity in the local private sector. Several studies have been undertaken on this subject, and a program has now been launched to help develop medium and small local road contractors. RAP will contribute to this overall effort through supporting the development of petty contractors and community-based, labor-intensive routine maintenance providers.

Under the World Bank program, initially some 11 contractors would be selected in late 1995 to perform pilot road maintenance or rehabilitation projects in various parts of the country. During execution, contractors would be assisted by technical assistance personnel. Contractors' personnel would also receive training under the ROCS training program. In subsequent stages, local contractors would be shortlisted and invited to tender on road projects, under local competitive bidding procedures. The participation of local firms as subcontractors or joint venture partners of international firms would also be encouraged. Under RAP, subcontracting and joint venturing will be required under all early contracts, and the goal is for the last few contracts to be undertaken solely by local contractors.

(4) Private Equipment Rental Pools: Another ROCS-2 objective is to establish three private equipment rental companies (PERCs) located in the south, center and north of the country. These companies would be owned jointly by private firms (51 percent) and by GRM (49 percent). Part of the heavy road equipment currently in the inventory of ECMEPs would be transferred to these equipment pools. Equipment would be available for hiring or leasing to contractors engaged in road projects. A study on the formation of equipment pools has been undertaken by a consultant. A draft study report was submitted in June 1994, and is expected to be finalized soon. No potential private investors have been identified yet. After their identification, many administrative, legal and contractual processes would have to be completed before PERCs can be established and start operating, which is an indication that equipment pools might not be available in the immediate future. DNEP has requested TA under RAP for the establishment of the PERCs.

(5) Road Fund: (See Financial Analysis, above)

E. Social Soundness: The roads to be rehabilitated under RAP cross 15 districts in five of Mozambique's ten provinces, centered in the fertile, densely populated north-central part of the country. This target area, which includes portions of Sofala, Manica, Zambezia, Tete and Nampula provinces, was selected on the basis of its potential for agriculturally-led economic growth. Other USAID activities, such as the PVO Support Project(s), are and will be also targeted in the region. Many of these districts were severely affected by the war and the 1992 drought. Populations were displaced, infrastructure was destroyed and/or neglected, and agriculture withered. Indeed, these events disrupted normal social and economic activities among the population in the project area for a generation. Given the area's population concentrations and economic potential, during the coming period of "national reconstruction," the rehabilitation of the social and economic fabric of the region will be a key factor in Mozambique's overall social and economic recovery.

The total population of the 15 districts to be affected by the project was estimated as of November 1994 at 2,143,000. Included in this figure are a great number of formerly displaced residents. Much of the overwhelmingly rural-oriented population received emergency assistance in the wake of the 1992 drought. Economic activity and food security based on small-scale agriculture remain low. The rehabilitation of roads within the target area will, however, contribute to the conditions necessary for significant socio-economic improvements. Improved access will greatly facilitate marketing of agricultural surpluses, use of inputs to enhance agricultural productivity, the availability of consumer goods and services, greater use of social services with expected impact on the health and education status of the population, and even greater participation in democratic political processes. Indeed, many of these results have been documented in areas impacted by roads rehabilitated under USAID's RAA.

The degree to which specific populations will participate in and benefit from opportunities made available under RAP is dependent on a wide variety of socio-economic factors, including: previous market integration, agricultural terms-of-trade, the availability of agricultural extension services, and the availability and cost of inputs, the existence of health centers and other social services, gender considerations, cultural traditions, political participation, strength of any existing traditional authorities, etc. In order to understand the potential impacts of the road improvements associated with these socio-economic factors, a social soundness assessment will be conducted on representative road segments as part of final feasibility studies undertaken prior to the preparation of final design and construction documentation.

The general objective of this assessment will be to maximize the impact of positive social impacts, while minimizing or avoiding altogether potential negative consequences of the work. A general SOW for this type of assessment is included in Annex K, Social Soundness Analysis. It will be used as the basis for preparation of a final SOW during the initial months of the project by project-funded consultants. The assessment work for each proposed road segment will be undertaken by the Institutional Contractor, quite likely with the help of local consultants. An example of the type of information to be covered in an assessment is included in Annex R, "Report on Field Trip to Gorongosa and Surrounding Area," prepared by members of the RAP Project Design Team. Acceptance of the assessment, based in part on incorporation of appropriate recommendations into the final road rehabilitation design, will be required by USAID prior to the commencement of any rehabilitation work.

F. <u>Environmental</u>:

An Initial Environmental Examination (IEE) was prepared in June 1994, and on the basis of it a Negative Environmental Determination was made by the Africa Bureau Environmental Officer (BEO) on 9/21/94. The determination contained the proviso (as noted in the body of the IEE text) that once the project activities had been more clearly defined, a more extensive review would be carried out relative to the road rehabilitation effort. This review was completed and approved by the BEO on 6/23/95 and is hereby incorporated into this Project Paper (see Annex L, Environmental Analysis and Environmental Threshold Decision).

The general environmental objectives under RAP are that the Mission seeks to ensure, for each road rehabilitation segment considered for funding under RAP, review and analysis of environmental issues and design of appropriate mitigative measures, as needed, as well as development of appropriate monitoring procedures. Furthermore, the Mission desires to build and strengthen the institutional capacity of DNEP to undertake environmental review procedures in conjunction with road work for which it is responsible.

The approach to achieving these objectives, as explained below and in Annex L in detail, will entail:

1) technical assistance to DNEP provided under the project-funded institutional contractor and/or by World Bank consultants funded under the ROCS-2 project;

2) refinement and implementation of various review and analysis procedures in which the Mission Environmental Officer or Advisor (MEO or MEA) and the regional Environmental Officer or Advisor (REO or REA) will be closely involved; and,

3) conditions and/or covenants in the bilateral project agreement that the GRM shall conduct environmental impact reviews, in form and substance satisfactory to USAID, of all road rehabilitation activities financed by RAP, and, based on the results of these analyses, will incorporate requirements for appropriate mitigative measures into

solicitations and construction contracts, and will monitor conditions during construction and afterwards, as determined appropriate in the environmental impact review process.

1) Potential Environmental Impact: The IEE Determination assumes that appropriate measures are taken to mitigate direct environmental impacts associated with road rehabilitation work, e.g., soil erosion, dust, etc. Such measures will be required of the contractor and experience indicates that mitigation will not be difficult. Perhaps the most significant of these concerns is erosion related to road rehabilitation work. Aside from being a potential environmental problem, erosion is a technical problem which can literally undermine the road work itself. Normally, small checkdams will be installed to curtail ditch erosion and drainage structures, bridges and culverts will be installed as needed to prevent ponding or channeling of water in a manner which could disrupt natural drainage patterns or create potential habitats for disease vectors. Those construction related problems not identified prior to rehabilitation will be addressed in the course of ongoing maintenance work to be carried out by the GRM, private contractors and community residents.

Another issue involves possible indirect impacts resulting from increased access to areas which were semi-depopulated and/or underpopulated as a result of poor road conditions. In such areas, land use patterns and intensity have been affected, and in the case of depopulated areas, natural vegetation and perhaps wildlife may have regenerated. In other words, possible environmental impacts must be assessed in relationship to the process and pace of human developments in areas associated with enhanced access. One example of possible indirect impacts is degradation of forested areas and wildlife habitats through an increase in the amount of land cleared for farming, logging or other land uses. Given that RAP will involve existing road segments, it should be noted that the main impact will be on intensifying land use in many underutilized areas, rather than opening new areas for human activities.

It is also important to note that there is a strong possibility that road rehabilitation will result in positive environmental impacts as well. Enhancing access of rural residents to modern agricultural inputs will encourage peasants to adopt more advanced cultivation practices and thereby reduce the traditional need to employ slash and burn techniques. The extent of indirect environmental impacts is difficult to ascertain given the level of information currently available. However, such impacts will be carefully addressed under RAP on a case-by-case basis as outlined below.

2) The Environmental Impact Review Process: In order to ensure appropriate attention is given to the risks of environmental degradation, an environmental impact review will be a standard component of the final road subproject selection process. In the context of this work, a GRM capacity will be established to properly assess, and when appropriate, address the potential environmental consequences of road rehabilitation. DNEP staff will learn to use environmental assessment, planning and monitoring techniques.

The environmental impact review process for each proposed road segment will consist of up to three steps (see Annex I for a detailed description). The first is completion by DNEP staff, with the assistance of the project Institutional Contractor, of an Environmental Screening Form (ESF). The purpose of the ESF is threefold: (1) the ESF will allow subproject designers to identify any potential major direct and/or indirect environmental impacts that require further analysis; (2) to identify appropriate mitigative measures for routine direct impacts associated with road work, to be incorporated into the rehabilitation contract documents; or (3) provide the basis for USAID to reject the road segment due to the likelihood of significant environmental impacts which would be costly or impossible to mitigate. A draft ESF is included in Annex L.

If the ESF results warrant it, the next step would be a "Focused

Environmental Analysis" (FEA), which would take place concurrently with the economic analysis and social soundness assessment performed of the road segment. The purpose of the FEA is to follow-up on significant questions and issues raised in the ESF process. In some instances the FEA would focus largely on specific mitigative measures in order to avoid or reduce negative environmental impacts, in which case the work would be performed by DNEP staff, assisted by the IC. In other cases, the FEA will focus on specific issues, which need to be investigated in further detail. For example, if the likelihood of jeopardizing rare or endangered species cannot be ruled out at the ESF stage, or an expert determination of "undegraded forest" is needed, the FEA would address those issues. In these instances, outside environmental experts will be contracted by DNEP or directly by USAID to perform the FEA. The result of the FEA would either: (1) provide the basis for road segment approval from the environmental perspective, and assuming the results of other studies (economic and social soundness) are satisfactory, continuing into final design; (2) reveal the segment to have significant adverse environmental impacts, requiring an Environmental Assessment (EA); or (3) provide the basis for USAID to reject the road segment due to the likelihood of significant environmental impacts which would be costly or impossible to mitigate.

Under ROCS-2, all road work costing more than $1,000,000 must have conducted an environmental assessment, with the final design adopting standards and construction methods aimed at minimizing possible adverse environmental impact. Environmental guidelines covering this assessment must be acceptable to the World Bank. Swedish Development Cooperation is funding the preparation of the guidelines, which are expected to be available in early 1996 (see Annex L for this work's TOR). Given that RAP environmental impact review procedures will have been developed sooner, the Mission will seek to have them utilized as the basis for the ROCS-2 environmental assessment. This will avoid the need for DNEP to employ two sets of procedures, and ensure that all ROCS-2 road work is up to the environmental standards of that under RAP.

Should the determination be made that an EA is required for a particular road segment, and USAID should decide to go ahead, that EA would conform to Regulation 216. The purpose of the EA is to provide USAID and the Host Country with a full discussion of significant environmental effects of a proposed action. It would include alternatives to avoid or minimize adverse effects or enhance the quality of the environment. This work, if undertaken, will be directly contracted by USAID.

<u>ANNEXES</u>

A. Logical Framework
B. GRM Letter of Request
C. PID Approval/ECPR Guidance
D. Financial Plan and Detailed Cost Estimate
E. Project Monitoring and Evaluation Plan
F. Implementation Plan and Schedule
G. Procurement Plan
H. Technical and Engineering Analysis
I. Institutional Analysis/Host Country Contracting (HCC) Assessment
J. Financial Analysis
K. Social Soundness Analysis
L. Environmental Analysis and Environmental Threshold Decision
M. Technical Assistance Plan/Draft Scopes of Work
N. Statutory and Country Checklists
O. 611(a) Certification (PD 20 Analysis(?))
P. 611(e) Certification and AA/AFR Considerations
Q. HCC Certification
R. Report on Field Trip to Gorongosa and Surrounding Area
S. Constraints to Commercialization of Agricultural Products

ACTION: AID-1
INFO: DCM-1 AMB-1

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CHARGE: AID

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TAGS:
SUBJECT: RURAL ACCESS PROJECT (656-0232)

CONGRESSIONAL CONCERNS ON SUBJECT PROJECT HAVE BEEN ADDRESSED AS OF AUGUST 21, 1995. HOLD HAS THEREFORE BEEN LIFTED AND OBLIGATION MAY NOW BE INCURRED.
CHRISTOPHER
BT
#8928

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PROJECT AUTHORIZATION

NAME OF GRANTEE: Government of the Republic of Mozambique

NAME OF PROJECT: Mozambique Rural Access Project

PROJECT NUMBER: 656-0232

1. Pursuant to the Foreign Assistance Act of 1961, as amended, the Foreign Operations, Export Financing and Related Activities Appropriations Acts, and Africa Bureau Delegation of Authority 551, as amended, I hereby authorize the Rural Access Project for the Government of the Republic of Mozambique ("Grantee"), involving planned obligations not to exceed $53,000,000 in grant funds over a period of approximately seven years subject to the availability of funds in accordance with the USAID OYB allotment process, to help in financing the foreign exchange and local currency costs of the project. The planned life of the project is seven years, one month, and one week from the date of initial obligation.

2. The Mozambique Rural Access Activity ("Project") will increase access and reduce the cost of transportation in Mozambique through the all-weather rehabilitation of rural roads to high-potential areas for economic recovery. The Project will provide technical assistance, commodities and services to assist in four areas: 1) rehabilitation of selected existing roads; 2) strengthening of governmental capacity at central, district and provincial levels, to plan and execute road construction and maintenance; 3) enhancement of the private sector's opportunities and capabilities to participate in road rehabilitation and maintenance activities; and 4) improvement of the Grantee's capacities, institutions and procedures for financing road construction and maintenance.

3. The Project Grant Agreement, which may be negotiated and executed by the officers to whom such authority is delegated in accordance with USAID regulations and delegations of authority, shall be subject to the following essential terms, covenants and conditions, together with such other terms and conditions as USAID may deem appropriate.

a. <u>Source and Origin of Commodities, Nationality of Suppliers</u>

Commodities financed by USAID under the project shall have their source and origin, and the suppliers or commodities or services, except for ocean shipping, shall have their nationality in countries included in USAID Geographic Code 935, except as USAID may otherwise agree in writing. Ocean shipping financed by USAID under the project shall, except as USAID may otherwise agree in writing, be financed only on flag vessels of the Grantee and the United States.

b. Conditions Precedent to Disbursement

First Disbursement. Prior to the first disbursement of funds under the Grant, or to the issuance by USAID of documentation pursuant to which such disbursement may be made, other than for USAID project management, the Grantee shall, except as USAID may otherwise agree in writing, furnish to USAID, in form and substance satisfactory to USAID, the following:

(a) a statement of the name of the person holding or acting in the office of the Grantee specified in Section 8.2 (of the Project Agreement), and the names of any additional representatives, together with a specimen signature for each person specified in such statement;

(b) the official designation of a person in the managerial level of the DNEP to act as Coordinator with the duty, *inter alia*, of insuring communication among the personnel of the Project and the activities and personnel of the World Bank Roads and Coastal Shipping Projects (ROCS 1 and 2);

(c) evidence that the Grantee has reaffirmed key road sector policies as contained in the "Letter of Sector Policies," signed by the Minister of Finance and Planning, addressed to the World Bank, and dated February 10, 1994.

(d) evidence that the Grantee has made significant progress in preparing a three-year nationwide road maintenance plan which specifies: (i) the location of roads and number of kilometers to be maintained each year; (ii) maintenance standards, including frequency, applying to basic and heavy routine, and periodic maintenance; (iii) anticipated maintenance providers, including a discussion of the capacity of each; and (iv) annual funding requirements and sources of financing for road maintenance.

Disbursement for Rehabilitation and Construction Contracts -- Phase 1. Prior to disbursement under the Grant for any Phase 1 road rehabilitation and/or construction, or to the issuance by USAID of documentation pursuant to which such disbursement may be made, the Grantee shall furnish to USAID, in form and substance satisfactory to USAID, the following:

(a) evidence that the Grantee has adopted and is effectively implementing procedures to facilitate the collection of international road transit charges through sale of coupons, and that revenues so gained are either expeditiously transferred through the Ministry of Finance and Planning to the Road Fund, or paid directly into it.

(b) practicable engineering and financial plans for the contracts for Phase 1 road rehabilitation;

(c) a schedule for future maintenance of Phase 1 roads, including projections of cost, sources of required services and plans for procurement of necessary commodities.

Disbursement for Rehabilitation and Construction Contracts -- Phase 2 . Prior to disbursement under the Grant for any Phase 2 road rehabilitation and/or construction, or to the issuance by USAID of documentation pursuant to which such disbursement may be made, the Grantee shall furnish to USAID, in form and substance satisfactory to USAID, the following:

(a) practicable engineering and financial plans for the contracts for Phase 2 road rehabilitation;

(b) a schedule for future maintenance of Phase 2 roads, including projections of cost, sources of required services and plans for procurement of necessary commodities; and

(c) evidence that roads rehabilitated under Phase 1 are being maintained at a satisfactory level, or that action under the schedule for such maintenance is progressing satisfactorily.

c. Covenants

Grantee Commitment to Provide Counterpart. The Grantee shall make every effort to ensure that counterpart funds are available in a timely and satisfactory manner. Likewise, the Grantee shall provide USAID with quarterly reports on the provision of counterpart contributions. These reports shall be provided no later than 30 days after the end of the quarter. Failure to provide counterpart funds in a timely fashion may, at USAID's discretion, be grounds for suspension or termination, in whole or in part, in accordance with Standard Provision D(1) (Annex 2).

Project Monitoring and Evaluation. The Parties agree to establish a monitoring and evaluation program as part of the Project. Project monitoring will cover two areas, implementation and results, both of which will provide a basis for informed managment decision making and measuring achievements by the Parties. The Parties agree that monitoring possible environmental impacts of Project road rehabilitation activities is particularly important and that such monitoring will be integrated within the overall monitoring program. Except as the Parties may otherwise agree in writing, there will be a final evaluation at the end of the seventh year of the Project.

Special impact assessments will assess progress toward planned objectives, identify problems and recommend modifications in the Project if necessary to resolve any problems. The final evaluation will assess achievement of the Project's goal and purpose as well as its contribution to USAID's strategic objectives in Mozambique, identify lessons learned, and determine the desirability of follow-on efforts.

Taxation.

(a) This Agreement and the Grant will be free from any taxation, duties, or fees imposed under laws in effect in the territory of the Grantee,

(b) To the extent that (1) any contractor, including any consulting firms, any personnel of such contractor financed under the Grant, and any property or transaction relating to such contracts and (2) any commodity procurement transaction financed under the Grant, are not exempt from identifiable taxes, tariffs, duties or other levies under laws in effect in the territory of the Grantee, the Grantee will, as and to the extent provided in and pursuant to Project Implementation Letters, pay or reimburse the same with funds other than those provided under the Grant.

Environmental Protection. The Parties agree that environmental protection is fundamental to sound development. Accordingly, the Parties will establish and utilize procedures for reviewing the potential negative environmental impact of each proposed road rehabilitation under the Project and to identify and utilize appropriate mitigation measures.

Road Construction and Maintenance Procedures. The Grantee agrees to establish national policies and procedures to effect improvements in road construction and maintenance. Such policies and procedures may be identified by the Parties, as needed, over the life of the Project.

Prohibited Uses of Funds. The parties agree that funds granted hereunder shall not be used to support the following activities:

(a) any activity reasonably likely to involve the relocation or expansion outside of the United States of an enterprise located in the United States if non-U.S. production in such relocation or expansion replaces some or all of the production of, and reduces the number of employees at, said enterprise in the United States;

(b) any activity the purpose of which is the establishment or development in a foreign country of any export processing zone or designated area where the labor, environmental, tax, tariff, and safety laws of the country would not apply, without the prior written approval of USAID;

(c) any activity which contributes to the violation of internationally recognized rights of workers in the recipient country, including in any designated zone or area in that country;

(d) any activity in support of military, paramilitary, police or other security forces, or for the retired personnel of such forces.

Signed: ______________________
Roger D. Carlson
Director
USAID/Mozambique

Dated: 8-22-95