

RD-ABP-422
Amendment Number 3
DOCUMENT CODE 3

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT DATA SHEET

1. TRANSACTION CODE
 A = Add
 C = Change
 D = Delete

2. COUNTRY/ENTITY
Southern Africa Regional/Malawi

3. PROJECT NUMBER
690.247.12

4. BUREAU/OFFICE
AFR 06

5. PROJECT TITLE (maximum 40 characters)
Regional Rail Systems Support

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
MM DD YY
06/30/95

7. ESTIMATED DATE OF OBLIGATION
(Under "B." below, enter 1, 2, 3, or 4)
A. Initial FY 88 B. Quarter C. Final FY 92

8. COSTS / \$000 OR EQUIVALENT \$1 =

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AD Appropriated Total						
Grant	7290		7290	11390		11390
Loan						
Other 1.						
U.S. 2.						
Host Country			1460			1460
Other Donors						
TOTALS			8750			12850

9. SCHEDULE OF AID FUNDING / \$000

A. APPROXIMATE DATE	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1)				10790		600		11390	
(2)									
(3)									
(4)									
TOTALS				10790		600		11390	

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

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
A. Code
B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

This Project Data Sheet pertains only to the Malawi portion of the Regional Rail Systems Support Project. The purpose of the project is to strengthen and expand the carrying capacity and operational efficiency of Malawi Railways.

14. SCHEDULED EVALUATIONS
Interim MM YY 06/92 Final MM YY 03/95

15. SOURCE/ORIGIN OF GOODS AND SERVICES
 000 941 Local Other (Specify) 935

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of 8 page PP Amendment)

Clearance: Controller, USAID/Malawi *[Signature]*

17. APPROVED BY
Signature *Carol A. Peasley*
Title Carol A. Peasley
Director, USAID/Malawi

Date Signed MM DD YY
09/29/92

18. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY
10/19/92

ACTION MEMORANDUM FOR THE DIRECTOR, USAID/MALAWI

Date: September 28, 1992
From: David McCloud, PID
Subject: Regional Rail Systems Support Project (690-0247),
Malawi Component - Project Paper Supplement No. 4

I. Action Requested: You are requested to approve: (a) this Action Memorandum, which serves as a Project Paper Supplement for the Regional Rail Systems Support (RRSS) Project (690-0247); and (b) the attached Project Authorization amendment and Project Data Sheet Amendment. These documents amend the project by increasing the life of project funding by \$600,000 for the procurement of a dredge to be used to help maintain Malawi Railways' Lake Services port facilities. The RRSS Malawi Component is thereby increased from \$10,790,000 to \$11,390,000, and the overall RRSS Project from \$73,332,000 to \$73,932,000. No other changes to the project are included.

II. Background: Under the Northern Corridor Project (690-0237), USAID has been playing a major role since 1986 in a multi-donor program that seeks to upgrade the road, rail and lake linkages through northern Malawi to the port of Dar es Salaam, Tanzania, in order to provide Malawi with an alternative transport route to the Indian Ocean. In addition to major commodity assistance, this project has included substantial assistance to upgrade Lake Malawi port facilities at Chipoka, Chilumba and Monkey Bay. This included extensive civil works and the procurement and installation of gantry cranes and winches. USAID also has provided substantial assistance to Malawi Railways through the subject project (690-0247) to improve its physical capacity (locomotive rehabilitation and wagon repair) to handle primarily freight traffic. Malawi Railways includes the Lake Services division which is responsible for operations and maintenance of the lake port facilities.

One outstanding problem which has been identified concerning the operations of the lake port facilities is the extensive siltation at the port of Chipoka, which also is a railhead for lake traffic. Due to siltation at this port, there is presently not sufficient water depth to handle cargo ships during various times of the year. Construction of a breakwater, the purchase of a new dredge, and/or the repair of an existing old dredge have been options discussed.

To investigate this issue, A.I.D. contracted with an engineering firm, SOROS Associates, to assess the siltation problem at

Chipoka Port and to evaluate various alternatives for rectifying the problem in order to allow reliable docking of cargo ships.

III. Discussion: SOROS Associates undertook the Chipoka Port feasibility study in December, 1991. The findings of this study noted that while a Government of Malawi (GOM) proposed breakwater is not necessary to correct the siltation problem, a new dredge is required. The following are excerpts from the SOROS report.

From the standpoint of harbor sedimentation, no new breakwater construction at Chipoka Port is recommended ...

Similarly, no new breakwater construction is recommended to provide additional protection to the port from wave action ...

The harbor and berths at Chipoka Port should be dredged to a depth of approximately 3.0 meters below the average annual low lake level as soon as possible. Also, provision should be made for maintenance dredging at the port of quantities up to about 7000 cubic meters per year ...

The existing dredge "Sea Care" was given to Malawi by Great Britain sometime prior to 1979 after having seen service on the River Thames for an unknown period of time. This dredge experiences repeated breakdowns and examination of the vessel log of the dredge suggests that it is capable of dredging only about 2000-3000 cubic meters each year.— It is not considered adequate to undertake the dredging tasks outlined above and should be scrapped. —It should be replaced with a new dredge designed to accomplish its required tasks. Because, at present, other dredging capability is essentially non-existent in Malawi on Lake Malawi, this dredge should be capable of being transported to other Malawian ports on the lake, of which some are known to have dredging requirements. The Republic of Malawi should have the capability of carrying out required dredging in its lake ports.

The SOROS report clearly identifies the need for a new dredge. That USAID provide the necessary financing is justified on at least two counts. First, achieving the purpose of the RRSS Project, to expand the carrying capacity and operational efficiency of Malawi Railways, will be enhanced with a fully functioning Lake Services. If Chipoka Port can not be used for major cargo traffic during portions of the year because siltation in effect closes the port, then the Lake Services can not provide efficient and reliable transport facilities. To the extent that the railhead at Chipoka can not be fully utilized, Malawi Railways operates less efficiently and can not provide the services which the RRSS Project is supporting through locomotive

and wagon rehabilitation.

Second, the Northern Corridor Project depends on fully functioning Lake Malawi port facilities. The transport route developed under this multi-donor project includes lake transport between the ports of Chilumba in the north and Chipoka further south. Under the Northern Corridor Project, USAID to a large extent rebuilt these ports. If the problem is not controlled, the resulting reduced use of Chipoka Port will significantly reduce the economic benefits of the Northern Corridor Project.

The SOROS report concluded that the purchase of a new portable dredge was the most technically feasible, cost effective and environmentally sound solution to the siltation problem. Recommended was a small dredge, compatible to the specifications of either an Ellicott Mud Cat Series MC-915 auger type or a Mud Cat Dragon 370 Series Cutterhead type. Although these types of dredges are not self-propelled, they require only a small outboard motorboat as a tender. They can be transported to different locations by truck and come with one piece hulls. Both types are equipped with 1000 meters of 8' to 10' discharge pipes. The new dredge will be managed and operated by experienced marine engineers already employed by Malawi Lake Services. USAID/Malawi also will include training in the contract with the dredge supplier.

An IEE was prepared and submitted to the Africa Bureau Environmental Officer, recommending a negative determination. The approved IEE is included with this supplement as an attachment. The SOROS study confirmed an earlier environmental assessment prepared by the Regional Environmental Officer from REDSO/ESA. That assessment stated that the eastern side of the jetty at the port would have to be dredged to a depth of approximately three meters. Both the SOROS study and the assessment, however, noted that even with a siltation problem, the total area and volume of sediment involved are so small that no significant environmental impact would be expected on the lake environment ; om this activity.

IV. Revised BudgetRevised Financial Plan
(US\$)

<u>Item</u>	<u>Existing¹</u>	<u>New</u>
1. Commodities/Renovations	8,895,000	9,495,000
2. Training	220,000	220,000
3. Monitoring/Eval./Audit	300,000	300,000
4. Technical Assistance	850,000	850,000
5. Contingency/Inflation	<u>525,000</u>	<u>525,000</u>
TOTAL	10,790,000	<u>11,390,000</u>

The only budgetary change required for this supplement is the addition of \$600,000 to the "Commodities/Renovations" line item. This estimate includes the dredge and required training, and is based on information provided by the SOROS consulting team.

V. Procurement Plan: The dredge will be competitively procured, using the services of REDSO/ESA Regional Commodity Procurement Officer. Procurement documents will be prepared, using specifications provided by the SOROS consulting team and advice from the REDSO/ESA Regional Engineering Officer. Although funds for this activity come from the Development Fund for Africa, therefore allowing Geographic Code 935 procurement, it is expected that the source/origin for this activity will be Geographic Code 000.

Procurement documents will be prepared by December 1992. Allowing ninety days for advertising and negotiations, a contract will be in place by March 1993, and delivery is expected July/August, 1993.

VI. Delegation of Authority and CN Notification: Because authority for this Southern Africa Regional Program project rests with USAID/Zimbabwe, an ad hoc delegation of authority was requested of AID/W for USAID/Malawi. State 313348, dated September 25, 1992, gives this authority to USAID/Malawi. Also, State 311467, dated September 24, 1992, notified the Mission that

¹ As amended in PP Supplement No. 3, dated 12/6/91.

the CN has expired.

VII. Recommendations

That you sign:

A. This Action Memorandum, thereby approving the Project Paper Supplement including the increase in project funding, and

B. The attached Project Data Sheet amendment and Project Authorization amendment.

Approved: Carol A. Peasley

Disapproved: _____

Date: 29 Sept. 1992

Attachments:

1. Initial Environmental Examination
2. Project Data Sheet Amendment
3. Project Authorization Amendment

RRSS Action Memorandum / PP Supplement & Authorization

Drafted: PID:DMcCloud [Signature]

Clearances: PID:BBrands ZAB 9/28
PAE:RMahoney [Signature] 9/28
CONT:RAmin [Signature] 9/29/12
RCMO:CLyons FAX - 9/25
RLA:AVance FAX - 9/29

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Project Authorization

Amendment No. 5

Country/Entity: Southern Africa Regional

Project Title: Regional Rail Systems Support

Project Number: 690-0247

1. Pursuant to the Foreign Assistance Act of 1961, as amended; the Foreign Operations, Export Financing and Related Programs Appropriations Act of 1988, Africa Bureau Delegation of Authority (DOA) 551, as amended; and ad hoc authority delegated under 88 State 102126; the Regional Rail Systems Support Project was authorized on August 16, 1988 with a life of project funding of forty-eight million eight hundred thirty-two thousand United States Dollars (\$48,832,000) over a two year period from the date of authorization. Subsequent authorization amendments increased the life of project funding level to \$73,332,000. The original PACD of April 30, 1993, was extended to June 30, 1995.

2. Pursuant to Section 496 of the Foreign Assistance Act of 1961, as amended; 92 State 313348 which provides an ad hoc delegation of authority to the USAID/Malawi Mission Director; and in accordance with all other terms and conditions of DOA 551; I hereby authorize an additional six hundred thousand United States Dollars (\$600,000) in grant funds for the Malawi Component of said Project, for a new authorized life of project funding not to exceed \$73,932,000. The PACD remains unchanged.

3. The original authorization, as amended, remains in full force and effect.

Signature: Carol A. Peasley
 Carol A. Peasley
 Director, USAID/Malawi

Date: 29 Sept. 1992

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ENVIRONMENTAL EXAMINATION

PROGRAM DATA

Program Location: Malawi

Program Title: Regional Rail Systems Support (690-0247.12)

Funding: \$600,000 increase in LOP to \$11,320,000

Life of Project: 7 years

EE Prepared By: William R. Brands *William R. Brands*
Project Development Officer
USAID/Malawi

Environmental Action Recommended: Negative Determination for One Dredge for Lake Malawi.

Approval: *Carol A. Peasley*
Carol A. Peasley, Director
USAID/Malawi

Date: September 15, 1992

Concurrence: *John J. Gaudet*
John J. Gaudet
Bureau Environmental Officer
Approved:
Disapproved:
9/27/92

Clearances: T. Lofgren, ADD *T* Date *9/14/92*
CC/AFR *MA Kiewit* Date *9/23/92*

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PROJECT PROBLEM

Due to an accretion of sediment at the Port of Chipoka, there is presently not sufficient water depth at the port to handle cargo ships at low tides during various times of the year. This problem has been compounded this year with the drought. Although an antiquated dredge exists, it continuously breaks down and is not considered adequate to undertake the required tasks.

DISCUSSION

USAID has played a leading role in improving the major ports on Lake Malawi under the Northern Corridor Project. USAID financed extensive civil works and gantry cranes at the ports of Chilumba and Chipoka as well as the civil works and winches at the repair and maintenance facilities in Monkey Bay. These activities are all part of a multi-donor program that seeks to upgrade the road, rail and lake linkages through Northern Malawi to the Port of Dar es Salaam, Tanzania.

Although the major structural components of the NC route are completed, the Port of Chipoka will not be completely operational until the sedimentation problem is resolved. At the request of the GOM, USAID/Malawi signed an Amendment to the NC Project in August of 1991 to permit the funding of a study to evaluate alternative solutions to the sedimentation problem. SOROS Associates undertook this study in December of 1991. The following alternatives were evaluated for technical feasibility, cost effectiveness and environmental soundness: a new breakwater, maintenance dredging using a new dredge, maintenance dredging using the existing dredge, a sand bypassing system or a combination of the above.

A new breakwater or a sand bypassing system were not recommended for two reasons. First, the Port of Chipoka experiences a comparatively low volume of annual sedimentation to economically justify either system. The sedimentation rates calculated only ranged from a minimum of 1600 to a maximum of 7000 cubic meters per year. This quantity can easily be accommodated with simple maintenance dredging. Second, the report noted that a breakwater or sand bypassing system would not eliminate the littoral transport of sediment. It would only reduce or delay sedimentation at the port while creating a potential problem of sedimentation on beaches farther down the coast.

The existing dredge "Sea Care" was utilized at the Port of Chipoka between 1979-1980 and again in 1987 and 1991. Logs indicate that it spends most time broken down and suffers from a chronic lack of spare parts. Even if the "Sea Care" functioned properly, maximum capacity for the dredge was estimated at only 2500 cubic meters per year. The study recommended that the existing dredge be scrapped immediately.

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The SOROS report concluded that the purchase of a new portable dredge was the most technically feasible, cost effective and environmentally sound solution to the sedimentation problem. The report recommended that a small dredge compatible to the specifications of either an Ellicott Mud Cat Series MC-915 auger type or a Mud Cat Dragon 370 Series Cutterhead type dredge be considered. Although these types of dredges are not self-propelled, they require only a small outboard motorboat as a tender. They can be transported to different locations by truck and come with one piece hulls. Both types are equipped with 1000 meters of 8' to 10' discharge pipes.

A new dredge would be managed and operated by experienced marine engineers already employed by Malawi Lake Services, a subsidiary of Malawi Railways. USAID/Malawi would also guarantee that a training provision be included in a contract with the supplier of the dredge.

The SOROS study confirmed an earlier environmental assessment prepared by the Regional Environmental Officer of REDSO/ESA on June 23, 1986. The initial environmental assessment stated that the eastern side of the jetty at the Port of Chipoka would have to be dredged to a depth of approximately three meters. Both the SOROS study and the initial assessment, however, noted that even with a sedimentation problem, the total area and volume of sediment involved are so small that no significant environmental impact would be expected on the Lake Malawi environment from this activity. A new dredge would improve the efficiency of operations and decrease the amount of time water is disturbed at dockside.

Based on the above discussion, a Negative Determination is requested for one dredge.