PDBBD 390

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SOUTHERN AFRICA REGIONAL
MALAWI NORTHERN CORRIDOR

(690-0237)

PROJECT PAPER

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D. C. 20053

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AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: _____ — DOCUMENT CODE: 3

2. COUNTRY/ENTITY: SOUTHERN AFRICA REGIONAL

3. PROJECT NUMBER: 690-0237

4. BUREAU/OFFICE: AFR | 06

5. PROJECT TITLE (maximum 40 characters): MALAWI NORTHERN CORRIDOR

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 89

7. ESTIMATED DATE OF OBLIGATION (Under "B." below, enter 1, 2, 3, or 4): A. Initial FY 86 — B. Quarter 4 — C. Final FY 87

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

A. FUNDING SOURCE	FIRST FY B. FX	FIRST FY C. L/C	FIRST FY D. Total	LIFE OF PROJECT E. FX	LIFE OF PROJECT F. L/C	LIFE OF PROJECT G. Total
AID Appropriated Total						
(Grant)	(6875)	(3125)	(10,000)	(7231)	(3269)	(10,500)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country						
Other Donor(s)						
TOTALS	6,875	3,125	10,000	7,231	3,269	10,500

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	C. PRIMARY TECH. CODE 2. Loan	D. OBLIGATIONS TO DATE 1. Grant	D. OBLIGATIONS TO DATE 2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	E. AMOUNT APPROVED THIS ACTION 2. Loan	F. LIFE OF PROJECT 1. Grant	F. LIFE OF PROJECT 2. Loan
(1)	823					10,500		10,500	
(2)									
(3)									
(4)									
TOTALS						10,500		10,500	

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	TECH	BL					
B. Amount							

13. PROJECT PURPOSE (maximum 480 characters)

To improve Malawi's access to the coastal port of Dar-Es-Salaam by providing, in conjunction with other donors, a comprehensive northern transport corridor through Malawi and Tanzania, along with the necessary linkages with road, lake and rail transit systems. The AID-funded portion of the overall project will concentrate on the upgrading of port services on Lake Malawi and will finance some mobile equipment for the two Malawi Cargo Centers in Tanzania.

14. SCHEDULED EVALUATIONS: Interim MM 10 YY 87 — Final MM 12 YY 88

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

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

Clearance: USAID/ZIMBABWE CONTROLLER: MARJORIE LEWIS: [signature]
(Based on RFMC phone clearance 7/1/86)

17. APPROVED BY — Signature: [signature] — Title: SCOTT E. SMITH, ACTING DIRECTOR, USAID/ZIMBABWE — Date Signed: MM 07 DD 01 YY 86

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

AID 1330-4 (8-79)

nr

PROJECT AUTHORIZATION

NAME OF ENTITY/COUNTRY: Southern Africa Regional Program, Malawi

NAME OF PROJECT: Malawi Northern Corridor

NUMBER OF PROJECT: 690-0237

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Malawi Northern Corridor Project for Malawi (the "Cooperating Country") involving planned obligations of not to exceed U.S.$10,500,000 ($10.5 million) in grant funds over a two year period from date of authorization subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of project is approximately three (3) years and three (3) months from the date of initial obligation.

2. The Project consists of assistance to facilitate Malawi's access to the port of Dar Es Salaam, as part of a multi-donor effort, through upgrading of the Northern Transport Corridor including facilities on Lake Malawi. The project will finance construction, commodities, equipment and services.

3. The Project Agreement(s) which may be negotiated and executed by the officer(s), to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions as A.I.D. may deem appropriate.

4.(a) Source and Origin of Commodities, Nationality of Services

Commodities financed by A.I.D. under the Project shall have their source and origin in the Cooperating Country, or in countries included in A.I.D. Geographic Code 941 except as A.I.D. may otherwise agree in writing. The suppliers of commodities or services shall have the Cooperating Country, or countries included in A.I.D. Geographic Code 941 as their place of nationality, except as A.I.D. may otherwise agree in writing.

(b). Conditions

(i) Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement, with the exception of the Personal Services Contract for the Project Manager and costs related directly to the funding of this position, the Cooperation Country shall furnish in form and substance satisfactory to A.I.D.:

(1) Evidence that it has executed an agreement with the Government of Tanzania governing the operations of the Malawi-Tanzania Corridor Transport System, which is to include an ancillary agreement between Malawi Railways and the Tanzania-Zambia Railway Authority for the establishment and operation of the Malawi Cargo Centers at Dar Es Salaam and Mbeya, and also to include signed lease agreements with Malawi Railways as lessee of the two planned sites for the Malawi Cargo Centers.

(2) Evidence that the United Kingdom/ODA or other donor(s) has made a firm commitment to provide the planned financing for the Malawi Cargo Centers in Tanzania and tools and equipment for vessel maintenance and repair in Malawi, as part of the Northern Transport Corridor multi-donor activity.

(ii) Prior to disbursement, or to the issuance of commitment documents pursuant to which disbursement will be made under the Project Agreement for each individual construction activity, the Cooperating Country shall furnish, in form and substance satisfactory to A.I.D., final designs and specifications for such construction and works to be financed by A.I.D.

(c) Covenants

Except as A.I.D. otherwise agrees in writing, the Cooperating Country shall covenant to:

(1) Provide sufficient trained staff to operate adequately each of the four transhipment facilities.

(2) Make available port facilities and personnel to operate the vessels on Lake Malawi and to staff the vessel maintenance/repair facility at Monkey Bay.

(d) Waiver

The following waiver to A.I.D. regulations is hereby approved: source/Origin waiver to Geographic Code 935 for approximately $100,000 for fuel pumping equipment.

Scott E. Smith
Acting Director, USAID/Zimbabwe

1 Feb. 1988
DATE

AID project management and monitoring will be the responsibility of USAID/Malawi, with technical backup from the Regional Engineer from the Southern Africa Regional Program (SARP) in Harare and the Regional Legal Advisor and Regional Commodity Management Officer in REDSO/Nairobi. The controller for the project will be RFMC, Nairobi.

Waivers

The Project Paper and authorization include a Code 935 source-origin waiver in the amount of $100,000 for pumping equipment, in the event that pumps necessary for the project are not available from Code 941 sources.

Finally, the project meets all statutory criteria and the Director, USAID/Malawi has signed the required 611(e) Certification. An Environmental Assessment has been completed and approved by AID/W. The only stipulation in the AID/W approval of the EA is that a septic tank be installed for the waiting room at Chilumba port. This will be discussed at the upcoming review of the engineering designs which will be attended by the SARP Regional Engineer. The addition of the septic tank will be financed under the A.I.D. grant at a cost of approximately $1,000.

RECOMMENDATION:

I recommend that you sign the attached project authorization, thereby authorizing the project at an LOP level of $10.5 million and approving a source-origin waiver in the amount of $100,000 to allow for the procurement of pumping equipment from Code 935 countries.

AID financing will be allocated among the following items:

	(in $000)
1. Commodity Procurement	
4 gantry cranes, one each for Dar, Mbeya, Chilumba and Chipoka	$ 2,906
9 (3-ton) fork lifts for Chipoka and Chilumba plus 1 (6-ton) fork lift for Chipoka	$ 243
34 (2.3-ton) pallet wagons for Dar, Mbeya, and Chipoka	$ 72
7 foam generators for Dar, Mbeya, Chilumba, Chipoka	$ 186
22 (45,000 liter) rail tank wagons for GOM use on TAZARA	$ 847
40m x 17.5m x 1.8m pontoon raft with ramp and bridge	$ 677
32 16,000 liter tanktainers	$ 400
2. Local cost financing of Host Country construction contracts	
Vipya pontoon modification	$ 334
Monkey Bay civil and building works	$ 1,141
Chipoka civil and building works	$ 946
Chilumba civil and building works	$ 1,416
	$ 9,168
3. Management	
AID Project Manager	253
Evaluations (2) & Short-term consultants	66
4. Contingencies (Approx. 10%)	1,013
TOTAL	$10,500

As indicated, the GOM will be heavily involved in the implementation of this project and will make large contributions of facilities and personnel. The precise GOM budget is still being formulated and will be made part of the Grant Agreement, but the PP team estimates that it will easily exceed the 25 percent standard normally required of host governments for AID projects, even though this ESF-funded project is exempt from the Section 110(a) requirement.

Project Approval and Management

Although approval authority for this project rests with USAID/Zimbabwe as a regional project, AID management responsibility will rest with USAID/Malawi, since the project is for the sole benefit of Malawi, and actual implementation will be carried out by the GOM. Accordingly, the Director of USAID/Malawi will execute the Grant Agreement with the Government of Malawi, based on a cabled redelegation of authority from you, as Acting Director of USAID/Zimbabwe. A draft Grant Agreement has been prepared by the Regional Legal Advisor for USAID/Malawi in REDSO/ESA. The project has been thoroughly reviewed by the GOM's Ministry of Transport and Communications (MOTC) and Ministry of Works and Supplies (MOWS).

containers, a hard concrete area for container storage, forklifts for transfer of break bulk to a new warehouse, a small workshop for equipment and roads for access and circulation within the port. Fuel facilities will be improved for use by truck tankers through the addition of a separate area adjacent to the existing fuel facilities and port. This will include separate diesel and petrol fueling points, a pumping station, access and circulation roads, earthwork with rock slopes, fencing and gates.

At Chipoka, the port operation will be improved through the provision of a gantry crane, forklifts, hard concrete storage area and a small workshop. Fuel facilities will be improved through the provision of 100,000 liter diesel and 90,000 liter petrol storage tanks.

At Monkey Bay maintenance and ship repair operations will be improved by the provision of a floating pontoon deck for berthing of two ships and repairs, plus a ramp and bridge connecting to the land. This pontoon will also act as an embarkation point for passengers. A new machine shop and workshop adjacent to the work areas will also increase operational efficiency. A new gate house and passenger waiting room will also separate passenger activities from repair operations. The Viphya pontoon will also be modified for containers at the Monkey Bay repair facility.

Financial Plan

The AID project involves life of project funding of $10,500,000 over a three year construction period, of which $10.0 million will be obligated from ESF funds in the fourth quarter of FY 1986. The balance of $500,000, if needed, will be obligated in FY 1987. The CN for this project, which was submitted on June 12, 1986 and expired on June 26, 1986 without objection, reported an FY 1986 obligation of $10.0 million.

The project will finance construction contracts and procurement, primarily to upgrade the Malawi Lake Service and the lake ports. Work will be executed by the GOM Ministry of Works and Supply (MOWS) and Malawi Railways (MR), which will be responsible for all contracting and construction. The Fixed Amount Reimbursement (FAR) method of payment will be used for construction and civil works; direct commodity procurement by the MOWS/MR will be financed through Direct Letters of Commitment issued by AID. The source and origin of goods and services financed by AID under this project will be AID Geographic Code 941, Selected Free World (U.S. and developing countries) and the Host Country.

ACTION MEMORANDUM FOR THE ACTING DIRECTOR, USAID/ZIMBABWE

FROM: Eugene Morris, Acting Deputy Director, Southern Africa Regional Program

SUBJECT: MALAWI NORTHERN CORRIDOR PROJECT (690-0237)

DATE: July 1, 1986

PROBLEM:

Your approval is requested to authorize a $10.5 million grant for the Malawi Northern Corridor project (690-0237). This activity falls under the umbrella Southern Africa Regional Transport Project, for which this office is responsible. AID/W has issued an ad hoc Delegation of Authority per State 166125, authorizing the Director of USAID Zimbabwe to approve the Project Paper and authorize the project.

DISCUSSION:

Project Description

This project is part of the larger multidonor Northern Transport Corridor (NTC) project, financed by the European Development Fund, the United Kingdom (ODA), West Germany (KfW), the Netherlands and the World Bank (IDA). The overall NTC project consists of establishing Malawi Cargo Centers at Dar es Salaam and Mbeya in Tanzania; use of the TAZARA rail line connecting these two points; upgrading of the road between Mbeya and Ibanda in Tanzania; a new road between Ibanda and Karonga in Malawi; improving the road between Karonga and Chilumba; transhipment to lake vessels at Chilumba; lake operation between Chilumba and Chipoka; transshipment at Chipoka to rail plus road improvements between Salima and Balaka along the rail line.

In the overall project, road construction and improvements will be financed by the EDF, KfW, Holland and IDA, which is also expected to fund the purchase of one additional pontoon lake vessel. Lake services in Malawi and some movable equipment for the Malawi Cargo Centers in Tanzania will be financed by USAID. Malawi Cargo Centers are being financed by the UK (ODA).

Specifically, the AID portion of the NTC scheme, and the project proposed in this Project Paper, deals with the upgrading of the two transhipment points on Lake Malawi at Chipoka in the south and Chilumba in the north and the ship maintenance facility at Monkey Bay, thus expanding the capacity of the lake service for cargo transport, and procurement of some mobile equipment for the two Malawi Cargo Centers in Tanzania.

At Chilumba, the port will be improved through construction of a new jetty for cargo vessels, a gantry crane for transfer of

MALAWI NORTHERN CORRIDOR PROJECT PAPER

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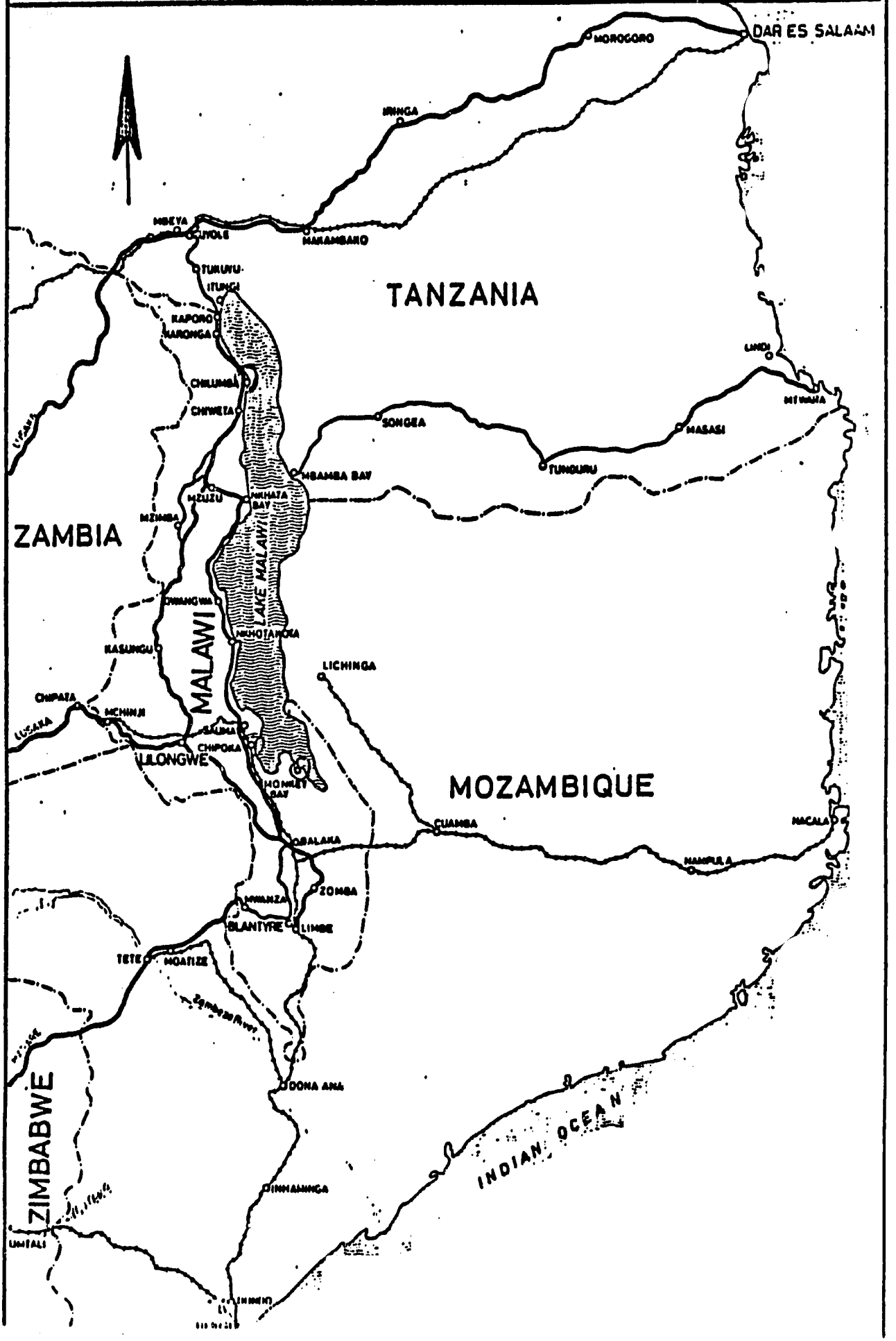
MAP



I. PROJECT DESCRIPTION

1. Background

As a land-locked country, Malawi is totally dependent on neighboring countries for transport of 650,000 to 800,000 tons of international surface cargo traffic annually. Historically, 90 to 95 percent of Malawi's goods have moved over two railway lines through Mozambique to the Indian Ocean ports of Beira and Nacala. Of the two, Beira was the more important route, handling up to 70 percent of traffic, and the only port capable of handling bulk goods such as fertilizer and sugar. The Nacala port is mainly for container cargo with a small storage area for fuel. However, since 1979, both routes through Mozambique have become unreliable, especially the Beira route, because of poor track maintenance, a shortage of wagons and locomotives, personnel and communications problems, and insurgent activities in Mozambique. The number of wagons using the Beira line declined from 35,000 in 1981 to zero in 1984.

Transport difficulties have placed a heavy burden on Malawi's balance of payments and budget, with the frequent result of severe shortages of critical goods. Dramatic increases in freight and insurance charges from 1979 to the present have placed an increasingly onerous financial drain on the GOM budget in recent years. By 1983, the monthly average of imports and exports moving through Mozambique was less than 40 percent of the 1977-81 level. To meet fertilizer requirements, the GOM had to make additional purchases in South Africa and ship them by road to Malawi at a greatly increased cost. Not all of the fertilizer arrived in time, and crop production suffered as a direct result. The cost to the economy in 1984 of transport disruptions was at least $50 million, or 20 percent of the value of exports. Added to this are losses of export business due to uncertainties over cost, time and possible product damage, as well as a growing lack of general confidence on the part of Malawi's export customers.

This situation has led to a virtually total dependency on the southern route through the Republic of South African to the port of Durban. Not only is this route three times the distance of the former route through Mozambique, but its use involves heavy reliance on expensive South African facilities and services. Furthermore, both the political and economic consequences of such a dependency are clearly growing more undesirable every day. If, as a result of the present prospects for international sanctions against South Africa, this trade route is closed or becomes unreliable, the effect will be to deny Malawi its only current practical access to a coastal port. While the outcome of this unprecedented situation is unpredictable at present, virtually any scenario underscores the urgent need for a reliable, cost-effective alternative route to the sea for Malawi, and for at least the next several years, the only feasible and realistic option is the Northern Corridor route to the Tanzanian port of Dar es Salaam.

2. Compliance with PID Criteria for Addressing Key Transport Constraints

This project meets the criteria set forth in the PID for the Southern Africa Regional Transport Development (SARTD) project to a very high degree. SARTD is the umbrella project under which the AID Northern Corridor project will be implemented as an independent activity, in the form of a grant to the Government of Malawi. In accordance with the criteria presented in Section II C. of the PID, entitled Project Strategy, the Northern Corridor project meets the required targets in the following ways:

1. the project addresses the constraints of cost and transport availability to the benefit of Malawi's import-export sector;

2. the project will result in a substantial saving of foreign exchange spent on transport by lowering the overall cost of transport and by increasing the percentage of local currency cost through maximizing the routing within Malawi, by means of low-cost lake shipment;

3. the internal rate of return is a very favorable 35 percent (see the Economic and Financial Analysis Summary and Annex G2 for details);

4. other necessary links in the Northern Transport Corridor network are being coordinated by the World Bank, and a high degree of commitment already exists from other donors. The two most critical links are Conditions Precedent to disbursement of this project;

5. host country recurrent costs will be offset by user fees for lake traffic and will result in net earnings for the GOM (see the project Economic and Financial Analysis Annex);

6. the project is expected to produce medium- and long-term economic growth both in the project area along the lake and for the country as a whole by stimulating both internal and international trade and by reducing transport costs;

7. the project is a very high priority within the SADCC program;

8. the prospective security of the Northern Corridor system both within Malawi and through Tanzania is excellent.

3. The Multi-donor NTC Project

The overall Northern Transport Corridor project (NTC) project, financed by several donors including the European Development Fund of the EEC, the United Kingdom (ODA), the Federal Republic of Germany (KfW), the Netherlands, the World Bank (IDA), and coordinated by the World Bank, serves the objective of providing Malawi with an

alternative route to the sea at Dar-es-Salaam, Tanzania. This option is of particular importance in view of the high cost of the present route through Durban, RSA and the long-term uncertainty of this route because of political factors. A second alternative routing through Mozambique to the ports of Beira or Nacala would be even more cost-effective as an international trade route to the sea from southern Malawi, but this corridor requires considerable upgrading, and political and security factors are expected to prevent this from becoming a reliable route for at least several more years. Moreover, for Malawi to be limited to a single international route exposes the whole country to severe political and economic vulnerability to pressures and fluctuations from abroad.

The overall NTC project consists of establishing Malawi Cargo Centers at Dar es Salaam and Mbeya in Tanzania; use of the TAZARA rail line connecting these two points; upgrading of the road between Mbeya and Ibanda in Tanzania; a new road between Ibanda and Karonga in Malawi; use of the road between Karonga and Chilumba; transhipment to lake vessels at Chilumba; lake operation between Chilumba and Chipoka; transshipment at Chipoka to rail plus road improvements between Salima and Balaka along the rail line.

Road construction and improvement will be financed by the EDF, KfW, Holland and IDA, which is also expected to fund the purchase of one additional pontoon lake vessel. Lake services in Malawi and the Malawi Cargo Centers in Tanzania will be financed by USAID and UK (ODA). Malawi Cargo Centers are financed by ODA.

4. The AID Northern Corridor Project

Specifically, the USAID portion of the overall NTC scheme, and the project proposed in this Project Paper, deals with the upgrading of the two transshipment points on Lake Malawi at Chipoka in the south and Chilumba in the north and the ship maintenance facility at Monkey Bay, thus expanding the capacity of the lake service for cargo transport; and procurement of some mobile equipment for the two Malawi Cargo Centers in Tanzania.

At Chilumba, the port will be improved through construction of a new jetty for cargo vessels, a gantry crane for transfer of containers, a hard concrete area for container storage, forklifts for transfer of break bulk to a new warehouse, a small workshop for equipment and roads for access and circulation within the port. Fuel facilities will be improved for use by truck tankers through the addition of a separate area adjacent to the existing fuel facilities and port. This will include separate diesel and petrol fueling points, a pumping station, access and circulation roads, earthwork with rock slopes, fencing and gates.

At Chipoka, the port operation will be improved through the provision of a gantry crane, forklifts, hard concrete storage area and a small

workshop. Fuel facilities will be improved through the provision of 100,000 liter diesel and 90,000 liter petrol storage tanks.

At Monkey Bay maintenance and ship repair operations will be improved by the provision of a floating pontoon deck for berthing of two ships and repairs, plus a ramp and bridge connecting to the land. This pontoon will also act as an embarkation point for passengers. A new machine shop and workshop adjacent to the work areas will also increase operational efficiency. A new gate house and passenger waiting room will also separate passenger activities from repair operations. The Viphya pontoon will also be modified for containers at the Monkey Bay repair facility.

5. Purpose and Outputs of the AID Project

The stated purpose of the AID project is to improve Malawi's access to the coastal port of Dar es Salaam, deemed to be potentially Malawi's most efficient available access to the sea, by providing, in conjunction with other donors, a comprehensive northern transport corridor through Malawi and Tanzania, along with the necessary linkages with road, lake and rail transit systems. The AID-funded portion of the overall project will concentrate on the upgrading of port services on Lake Malawi and will finance some mobile equipment for the two Malawi Cargo Centers in Tanzania.

Four specific outputs are associated with the AID project, i.e. results which are expected to be in place at the end of the project.

1) Upgraded facilities at the port at Chilumba, including construction of a jetty, installation of a gantry crane, fork lifts, hard concrete container storage area and access road, to permit 90,000 mt of break bulk and 80,000 mt of container cargo to be transshipped annually.

2) Upgraded facilities at the port at Chipoka, including installation of a gantry crane, fork lifts, hard concrete storage area, workshop and access road, to permit 50,000 mt of break bulk and 80,000 mt of container cargo to be transshipped annually.

3) Upgraded facilities for ship repair and maintenance at Monkey Bay, including provision of a new floating platform for berthing of two ships, machine shop, workshop, gatehouse, etc, to permit more efficient operation.

4) Malawi Cargo Centers at the port of Dar es Salaam and at the transshipment point at Mbeya, Tanzania, established in conjunction with British aid from ODA, through the provision of movable equipment similar to that provided at the two ports on Lake Malawi. This equipment, which can be procured from Zimbabwe, will be financed by AID for reasons of compatibility and cost effectiveness. The balance of the necessary equipment will be financed by the UK (ODA).

6. AID-Financed Inputs

	(in $000)
1. Commodity Procurement	
4 gantry cranes, one each for Dar, Mbeya, Chilumba and Chipoka	$ 2,906
9 (3-ton) fork lifts for Chipoka and Chilumba plus 1 (6-ton) fork lift for Chipoka	$ 243
34 (2.3-ton) pallet wagons for Dar, Mbeya, and Chipoka	$ 72
7 foam generators for Dar, Mbeya, Chilumba, Chipoka	$ 186
22 (45,000 liter) rail tank wagons for GOM use on TAZARA	$ 847
40m x 17.5m x 1.8m pontoon raft with ramp and bridge	$ 677
32 16,000 liter tanktainers	$ 400
2. Local cost financing of Host Country construction contracts	
Vipya pontoon modification	$ 334
Monkey Bay civil and building works	$ 1,141
Chipoka civil and building works	$ 946
Chilumba civil and building works	$ 1,416
	$ 9,168
3. Management	
AID Project Manager	253
Evaluations (2) & Short-term consultants	66
4. Contingencies (Approx. 10%)	1,013
TOTAL	$10,500

7. Contracting and Procurement under the AID Project

Although this project is funded under AID's Southern Africa Regional Program as part of the Southern Africa Regional Transport Development umbrella project, the Grant Agreement will be signed with the Government of Malawi (GOM) as host country, and USAID/Malawi will retain prime management responsibility for AID. The GOM, through its Ministry of Works and Supply (MOWS) and Malawi Railways (MR), will be responsible for all contracting and construction, using the Fixed Amount Reimbursement (FAR) method of payment, utilizing normal GOM tendering procedures. Similarly, the MOWS/MR will be responsible for all direct commodity procurement under the project, with the assistance of the World Bank-funded supervisory engineering firm under contract to the GOM. The source and origin of goods and services financed by AID under this project will by AID Geographic Code 941, Selected Free World (U.S. and developing countries).

AID project management and monitoring will be the responsibility of USAID/Malawi, with technical assistance as required from the Regional Engineer from the Southern Africa Regional Program (SARP) in Harare and the Regional Legal Advisor and Regional Supply Management Advisor in REDSO/Nairobi.

II. COST ESTIMATES AND FINANCIAL PLAN

The financial plan which follows presents the budget as of June, 1986 (but in 1985 prices) for the overall NTC multidonor project. The budget is based primarily on the technical design and cost estimates by GITEC, the World Bank's technical consultants for the overall project. Joint financing of the project is planned by six main donors and the GOM. All donor financing is grant except for the IDA credit. GOM financing shown is limited to 10% of the IDA component, net of taxes, and the tax portion of all components. The financial plan next presents the budget for the AID-financed portion of the overall scheme, which stands as an independent, self-contained project. The GOM contribution to the AID-financed project is shown separately.

Table 1. NTC FINANCING PLAN
(in $ millions at 1985 costs)

	Total Cost	IDA	EDF	Kfw	ODA	AID	Holland	GOM
Road Construction:								
Karonga-Ibanda	22.77		21.40					1.37
Ibanda-Uyole	6.88						6.88	
Salima-Jct.M18	11.29			10.05				1.24
Jct.M18-Balaka	14.62	11.71						2.91
Subtotal	55.56	11.71	21.40	10.05			6.88	5.52
Malawi Cargo Center:								
Dar Dry Cargo	4.00				3.30	0.70		
Mbeya Dry Cargo	3.45				2.75	0.70		
Subtotal	7.45				6.05	1.40		
Fuel Handling								
Dar fuel storage	0.90				0.90			
Mbeya fuel handling	1.13				1.13			
Subtotal	2.03				2.03			
Railway Tank Wagons	1.23					1.23		
Lake Facilities:								
Vessels	2.62	2.27				0.35		
Chipoka Port	1.58					1.50		0.08
Chilumba Port	2.74					2.69		0.05
Fuel Handling	0.77						0.74	
0.03								
Monkey Bay Maint	2.34				0.70	1.48		0.16
Subtotal	10.05	2.27			0.70	6.76		0.32
Border Post and Weigh Bridge	0.72		0.67					0.05
Consultant Services:								
Tech Asst-Lake	0.99	0.85						0.14
Tech Asst-MCC	0.99	0.85						0.14
Tech Asst-NTC	0.34	0.29						0.05
Supervision:	4.53	1.74	1.35	0.62			0.41	0.41
Subtotal	6.85	3.73	1.35	0.62			0.41	0.74
TOTAL	83.89	17.71	23.42	10.67	8.78	9.39	7.29	6.63

Budget for the AID-Financed Project

The AID-financed project relates to Lake Services, plus some mobile plant for the Malawi Cargo Centers in Mbeya and Dar-es-Salaam. Contracts will be host country FAR reimbursement and will be for Monkey Bay Civil and Building Works, Viphya Pontoon Modifications, Chipoka Dry Goods and Fuel, Chilumba Dry Goods and Fuel. Procurement will be for gantry cranes, forklifts, pallet wagons, pallets, fire fighting equipment, rail wagons, tanktainers. Base price cost estimates (i.e. without inflation) are shown in Table 2, and the Financial Plan showing disbursements by year in Table 3. Table 4 shows the Financial Plan by Facility (project outputs). In each table, costs are broken down in US dollars by foreign exchange ($US) and local currency.

Table 2. BASE PRICE COST ESTIMATE

Item in $000 (1986)	FX	LC	TOTAL
1. Monkey Bay Civil Works	55	582	637
2. Monkey Bay Buildings	0	400	400
3. Monkey Bay Jetty Pontoon	502	125	627
4. Viphya Pontoon Modifications	243	66	309
5. Chipoka Fuel Facilities	161	163	324
6. Chipoka Dry Goods	3	171	174
7. Chipoka Crane Foundations	106	180	286
8. Chipoka Workshop	0	76	76
9. Chilumba Fuel Facilities	210	233	443
10. Chilumba Dry Goods	3	357	360
11. Chilumba Crane Foundations	83	114	197
12. Chilumba Harbor Works	55	125	180
13. Chilumba Workshops	0	84	84
14. Gantry Cranes Chipoka, Chilumba	1423	0	1423
15. Gantry Cranes Dar and Mbeya	1219	0	1219
16. Forklifts Chipoka Chilumba	221	0	221
17. Pallet Wagons Chipoka Chilumba	8	0	8
18. Pallet Wagons Dar Mbeya	48	0	48
19. Pallets Chipoka Chilumba	0	12	12
20. Fire Fighting Equipment Chipoka Chilumba	75	0	75
21. Fire Fighting Equipment Dar Mbeya	100	0	100
22. Rail Wagons TAZARA	770	0	770
23. Tanktainers	364	0	364
24. Evaluations and consultants	60	0	60
25. AID Project Manager	225	0	225
	5934	2688	8622
Contingencies 10%	593	269	862
Grand Total	6527	2957	9484

Costs are based on June 1986 prices, i.e. inflation factor not included.

Table 3. FINANCIAL PLAN BY YEAR (Disbursements)

Items in $000	FY 86 FX	FY 86 I.C	FY 87 FX	FY 87 I.C	FY 88 FX	FY 88 I.C	TOTAL FX	TOTAL I.C
1. Monkey Bay Civil Works	0	0	31	320	30	320	61	640
2. Monkey Bay Buildings	0	0	0	220	0	220	0	440
3. Monkey Bay Jetty	0	0	361	90	181	45	542	135
4. Viphya Pontoon Modifications	0	0	131	36	131	36	262	72
5. Chipoka Fuel Facilities	0	0	71	72	106	107	177	179
6. Chipoka Dry Goods	0	0	1	75	2	113	3	188
7. Chipoka Crane Foundations	0	0	47	79	70	119	117	198
8. Chipoka Workshop	0	0	0	34	0	50	0	84
9. Chilumba Fuel Facilities	0	0	75	87	160	174	235	261
10. Chilumba Dry Goods	0	0	1	133	2	267	3	400
11. Chilumba Crane Foundations	0	0	31	43	62	85	93	128
12. Chilumba Harbor Works	0	0	21	47	41	93	62	140
13. Chilumba Workshops	0	0	0	28	0	66	0	94
14. Gantry Cranes Chipoka, Chilumba	0	0	1565	0	0	0	1565	0
15. Gantry Cranes Dar and Mbeya	0	0	1341	0	0	0	1341	0
16. Forklifts Chipoka Chilumba	0	0	243	0	0	0	243	0
17. Pallet Wagons Chipoka Chilumba	0	0	8	0	0	0	8	0
18. Pallet Wagons Dar Mbeya	0	0	51	0	0	0	51	0
19. Pallets Chipoka Chilumba	0	0	0	13	0	0	0	13
20. Fire Fighting Equipment Chipoka Chilumba	0	0	80	0	0	0	80	0
21. Fire Fighting Equipment Dar Mbeya	0	0	106	0	0	0	106	0
22. Rail Wagons TAZARA	0	0	847	0	0	0	847	0
23. Tanktainers	0	0	400	0	0	0	400	0
24. Evaluations and consultants	0	0	33	0	33	0	66	0
25. AID Project Manager	25	0	110	0	118	0	253	0
	25	0	5554	1277	936	1695	6515	2972
Contingencies (approx 10%)	0	0	594	137	102	180	696	317
Grand Total	25	0	6148	1414	1038	1875	7211	3289
				Total FX & I.C				$10,500

Costs are based on June 1986 prices, plus inflation at an annual rate of 8 percent, based on construction schedules and estimated procurement time.

Table 3.a. METHODS OF FINANCING (AID Project Components)

Construction Contracts	Host Country Contracts	Fixed Amount Reimbursement
Commodities	Host Country Contracts	Direct Letter of Commitment

Table 4. FINANCIAL PLAN BY FACILITY (Project Outputs)

Items in $000	FY 86		FY 87		FY 88		TOTAL	
	Fx	Lc	Fx	Lc	Fx	Lc	Fx	Lc
1. Monkey Bay	0	0	523	666	342	621	865	1287
A Civil Works	0	0	31	320	30	320	61	640
B Buildings	0	0	0	220	0	220	0	440
C Jetty	0	0	361	90	181	45	542	135
D Viphya Pontoon Modification	0	0	131	36	131	36	262	72
2. Chipoka.	0	0	1063	266	178	389	1241	655
A Fuel facilities	0	0	71	72	106	107	177	179
B Dry goods	0	0	1	75	2	113	3	188
C Crane Foundations	0	0	47	79	70	119	117	198
D Workshop	0	0	0	34	0	50	0	84
E Gantry Crane	0	0	780	0	0	0	780	0
F Forklifts	0	0	120	0	0	0	120	0
G Pallet Wagons	0	0	4	0	0	0	4	0
H Pallets	0	0	0	6	0	0	0	6
I Fire fighting equipment	0	0	40	0	0	0	40	0
3. Chilumba	0	0	1080	345	265	685	1345	1030
A Fuel facilities	0	0	75	87	160	174	235	261
B Dry goods	0	0	1	133	2	267	3	300
C Crane Foundations	0	0	31	43	62	85	93	128
D Harbor Works	0	0	21	47	41	93	62	140
E Workshop	0	0	0	28	0	66	0	94
F Gantry Crane	0	0	785	0	0	0	785	0
G Forklifts	0	0	123	0	0	0	123	0
H Pallet Wagons	0	0	4	0	0	0	4	0
I Pallets	0	0	0	7	0	0	0	7
J Fire fighting equipment	0	0	40	0	0	0	40	0
4. Mbeya	0	0	748	0	0	0	748	0
A Gantry Crane	0	0	670	0	0	0	670	0
B Pallet Wagons	0	0	25	0	0	0	25	0
C Fire Fighting Equipment	0	0	53	0	0	0	53	0
5. Dar es Salaam	0	0	750	0	0	0	750	0
A Gantry Crane	0	0	671	0	0	0	671	0
B Pallet Wagons	0	0	26	0	0	0	26	0
C Fire Fighting equipment	0	0	53	0	0	0	53	0
6. General	25	0	1984	137	253	180	2262	317
A Rail Wagons TAZARA	0	0	847	0	0	0	847	0
B Tanktainers	0	0	400	0	0	0	400	0
C Evaluations and consultants	0	0	33	0	33	0	66	0
D Project Manager	25	0	110	0	118	0	253	0
E Contingencies	0	0	594	137	102	180	696	317
TOTAL	25	0	6148	1414	1038	1875	7211	3289

Total FX & LC $10,500

GOM Contribution

The contribution of the Government of Malawi covering the AID project will primarily be in the form of supporting facilities and operating personnel for the Lake Service. At the time the Project Paper team concluded its work on June 26, 1986, the GOM was still preparing detailed cost figures, which will be part of the Grant Agreement scheduled to be signed in July. In the absence of specific figures, it is nevertheless possible to describe the nature of the GOM contribution to the project and its components.

Personnel: the actual staff costs at Chulumba and Chipoka ports, the Monkey Bay ship maintenance facility, the two Malawi Cargo Centers in Tanzania, cargo ship crews, plus the costs of managerial and supervisory personnel at MOTC, MOWS and MR.

Facilities: an amortized fair value of the facilities provided at all the above sites by the GOM over the three year life of the project, including the three vessels, fuel storage tanks, workshops, floating docks, buildings, storage areas and all other facilities operated by the Lake Service and the two cargo centers at Dar and Mbeya.

Supplies: the estimated value of the supplies and operating costs paid by the Lake Service and by the MOWS and MR in connection with construction and direct support of the AID project.

The Project Paper team estimates roughly that the sum value of all the the facilities and services provided by the GOM is likely to exceed $4 million, depending on accounting procedures used for valuating the facilities. It should be noted that although the 25 percent Host Country contribution required by Section 110(a) of the Foreign Assistance Act does not legally apply to this ESF-funded project (which is also a regional and multidonor activity), the GOM contribution should in fact exceed this level, if all elements of the GOM involved receive credit for their full participation.

III. IMPLEMENTATION PLAN

1. Procurement Plan

The host country will be responsible for all contracting and commodity procurement. This has been determined to be both feasible and efficient in Malawi for the activities planned under the project. This section outlines the procedures to be followed for the direct commodity procurement actions to be undertaken by the GOM. All direct commodity procurements by the GOM will be financed by Direct Letters of Commitment. The next section (III.2.) specifies the procedures to be followed for construction and civil works for which the fixed amount reimbursement method of financing will be used.

All direct commodity procurement under this project will be the responsibility of the MOWS. GITEC, a West German consulting firm under contract by the World Bank to assist the MOWS in design, is responsible for developing final comprehensive commodity lists, preparing detailed technical specifications, coordinating advertising activities, preparing solicitation documents which meet AID requirements.

The source and origin for all goods and services financed by this project will be from countries or areas included in AID Geographic Code 941 (Selected Free World) and Malawi, except as authorized under waivers or exempted as shelf items purchased under sanctioned local cost financing. A source and origin waiver to permit Code 935 procurement of pumping station equipment is attached as Annex F. No other procurement waivers are anticipated at this time.

Imported shelf items which are procured directly by the MOWS and/or Malawi Railways which are responsible for implementation can be bought from Malawi or from any other sub-Saharan Africa country. Shelf items located in one of the above countries which have their origin in countries included in Code 941 are eligible for financing in unlimited quantities. Shelf items of Code 899 origin (i.e., Republic of South Africa, Western Europe and Japan) are eligible if the unit price does not exceed $5,000. The total amount of imported shelf item purchases by the MOWS from code 899 may not exceed $25,000 or 10 percent of total local costs financed by AID under this project, whichever is higher; however in no case may the total amount of such purchases exceed $250,000 without first obtaining a geographic source waiver. Transactions involving shelf items which exceed $5,000 per unit or which are in excess of the total cost limit would require individual geographic source waivers.

Commodity procurement by the MOWS will follow the guidelines contained in AID Handbook 11, Chapter 3 regarding host country contracting methods for equipment and materials. Procedures to be followed will be set forth in a Project Implementation Letter.

For all host country contracting activities, AID approval is required of solicitation documents before issuance and of the final executed contract when the contract amount is estimated to exceed $100,000 or equivalent.

Contracts estimated to exceed $100,000 will be awarded on the basis of formal competitive bids; unless informal competitive procedures are otherwise approved by the Malawi Mission Director. This will include advertising the availability of invitations for Bids (IFBs) in the United States and other appropriate 941 countries (i.e., Zimbabwe and Zambia), issuance of the IFB by the MOWS, public opening of sealed bids by the Central Tender Board in Limbe, evaluation of the bids by the World Bank consultants with MOWS endorsement, and award of the contracts to the lowest, responsive and responsible bidder. The MOWS will withhold their letter of acceptance and award until the bid evaluation and contract has been reviewed and approved by AID. USAID/Malawi can request RCMO assistance for this review process if necessary.

Small value procurement procedures may be employed when the estimated value of a particular contract will not exceed $100,000. The contract may be awarded by soliciting quotations from a reasonable number of sources and awarded to the offeror with the most advantageous offer. However, commodities and incidental services which would normally be grouped together shall not be broken down into smaller procurements merely for the purposes of avoiding the requirements of formal competitive procedures.

United States suppliers are eligible under AID Geographic Code 941 designation to participate as candidates in procurements financed by this project, and must be informed of pending procurements through advertising. However, since most of the equipment and materials to be financed are produced either locally or in neighboring countries it is anticipated that U.S. suppliers will not reasonably be able to compete with other Code 941 firms. Therefore, the MOWS may wish to comply with advertising requirements by annually issuing a blanket or consolidated advertisement in the United States Commerce Business Daily and the AID Bulletin.

. The MOWS will provide copies of solicitation documents to all firms requesting copies and to any other firms the MOWS wishes to solicit. For direct equipment and materials contracting with suppliers by the MOWS the method of payment will be by AID Direct Letters of Commitment (L/COMM) to the suppliers. The MOWS and/or Malawi Railways will have full responsibility for ensuring that suppliers perform in accordance with the terms of the contract in order for the supplier to be paid.

All imported commodities will be shipped on the basis of CIF destination.

AID shipping requirements contained in AID Handbook 11, Chapter 3, will be observed.

Equipment and materials lists are shown in annex G3.

2. Contracting Plan (FAR)

The host country will be responsible for all contracting for constructon and civil works, using the Fixed Amount Reimbursement (FAR) method of payment. The Ministry of Works and Supplies (MOWS) of the GOM will be responsible for all contracts for construction and civil works under their usual public tendering procedures. AID will make payment based on FAR for completed, scheduled elements of work. The AID Regional Engineer for Southern Africa has determined that accurate cost estimates will be available for each element, and that each is relatively non-complex and small in cost. The AID Regional Engineer also reserves the right to review all contract drawings and documents for general compliance with AID requirements prior to solicitation. Both the Engineer and the Regional Legal Advisor (REDSO/Nairobi) have concluded that the FAR method is appropriate for the works involved.

The Regional Legal Advisor and the Regional Commodity Management Officer (REDSO/Nairobi) have reviewed the capability of the MOWS to handle the contracting actions required for this project and have determined that it is adequate. In the past three years, AID has financed three construction contracts in Malawi, all through host country contracting by the MOWS and the results have been excellent. The personnel at the MOWS have proven to be highly capable in tendering and administering the contracts, and in properly coordinating with AID as necessary. The MOWS itself has clearly demonstrated adequate systems and procedures for effective contract support, accounting, and payment procedures. In addition the AID REDSO Legal Advisor and Southern Africa Regional Engineer are available to assist the MOWS, as well as the project staff at USAID/Malawi. MOWS has also shown that Malawi contractors have the capacity and capability to construct these contracts.

Because Malawi is recognized by the UN as a Least Developed Country (RLDC) and does not have sufficient current working capital to go forward with these contracts on its own, AID will make advances of funds to permit work to begin, based on MOWS estimates of cash needs for a sixty-day period for each contract or contract element. The advances will be replenished monthly, based on quantity surveyors' reports on work completed and estimates for the following sixty days. (Because of AID's payment process this will result in an effective 30-day advance.) Work completed will be subject to a 10% retention. Should any FAR element not be completed in accordance with AID-approved specifications, the GOM must refund any payments attributable to that element.

Imported shelf items, irrespective of their origin (i.e. from Code 899 countries such as the Republic of South Africa, Western Europe and Japan), required for construction and civil works can be bought from Malawi or from any other sub-Saharan Africa country. Total imported shelf item procurements are limited to 25 percent of the total commodity costs. The price of any single shelf item unit may not exceed $5,000.

Transactions involving shelf items which exceed $5,000 per unit or which are in excess of the total 25 percent cost limit would require individual geographic source waivers.

The following works will be reimbursed on the FAR basis: Viphya pontoon modification based on the completed vessel; Monkey Bay ship maintenance facilities based on completed buildings by type, completed paving by kilometer; Chilumba Port based on buildings by type, earth work by completed job, paving by kilometer, gantry crane foundations by completed job, Chipoka Port based on buildings by type, paving by kilometer, gantry crane foundations by completed job, and fuel storage tanks and associated pipe work by completed job.

3. Implementation Schedule

A Overall Multidonor Project.

Karonga - Ibanda Road designed	June 1986
Karonga - Ibanda Road tenders	Oct. 1986
Karonga - Ibanda Road constructed	Jan 87/Dec 89
Ibanda - Uyole Road designed	July 1986
Ibanda - Uyole Road tenders	Sept. 1986
Ibanda - Uyole Road constructed	Jan 87/Dec 87
Salima - Balaka Road designed	July 1986
Salima - Balaka Road tenders	Sept. 1986
Salima - Balaka Road constructed	Jan 87/Dec 88
Dar-es-Salaam Dry Goods Facilities designed	Nov. 86
Dar-es-Salaam Dry Goods Facilities tenders	Mar. 87
Dar-es-Salaam Dry Goods Facilities constructed	Oct. 88
Dar-es-Salaam Fuel Facilities designed	Nov. 86
Dar-es-Salaam Fuel Facilities tenders	June 87
Dar-es-Salaam Fuel Facilities constructed	Jan. 88
Mbeya Dry Goods Facilities designed	Dec. 86
Mbeya Dry Goods Facilities tenders	Apr. 87
Mbeya Dry Goods Facilities constructed	Aug. 88
Mbeya Fuel Facilities designed	Nov. 86
Mbeya Fuel Facilities tenders	June 87
Mbeya Fuel Facilities constructed	Jan 88
Procurement Tanzania	Sept. 87
Self Propelled Pontoon	Mar. 87/June 88
Existing Pontoon Modification	Apr/June 87
Monkey Bay Jetty	March 87/Jan 88
Chilumba Port Dry Goods and Fuel Facilities	May 87/ Nov 88
Chipoka Port Dry Goods and Fuel Facilities	Mar 87/June 88
Monkey Bay Civil and Buildings	Feb 87/July 88
Procurement Malawi	Sept. 87

B USAID Project	Date	Action
GITEC Preliminary Design and Costs	June 86	AID/M,GOM
PP Approved by Regional Office Zimbabwe	June 86	AID/Z
Grant Agreement USAID/Malawi Govt. Malawi signed	July 86	AID/M,GOM
GITEC Final Design	Sept/Oct. 86	AID/M,GOM
Viphya Pontoon Design	Sept/Dec. 86	GITEC
GITEC Contract Documents	Nov/Dec. 86	AID, GOM
Monkey Bay Jetty Design	Oct/Dec. 86	GITEC

Monkey Bay tenders advertised	Nov 86/Jan 87	GOM
Chipoka Port dry goods and fuel facilities advertised	Dec 86/Feb. 87	GOM
Viphya Pontoon construction	Feb/June 87	GOM AID
Chilumba Port dry goods and fuel facilities advertised	Feb 87/Aug. 88	GOM
Monkey Bay construction	Feb 87/Aug. 88	GOM AID
Monkey Bay jetty fabrication, transport, erected	Mar/Jan 88	GOM AID
Chipoka Port dry goods and fuel facilities construction	Apr 87/June 88	GOM AID
Chilumba Port dry goods, harbor, fuel facilities construction	May 87/Nov 88	GOM AID
Viphya Pontoon in operation	July 87	GOM
AID Evaluation	Oct. 87	AID
Chipoka Port in full operation	June 88	GOM
Monkey Bay in full operation	Aug. 88	GOM
Chilumba in full operation	Nov. 88	GOM
AID Evaluation	Dec. 88	AID
Facilities Operation and Maintaince	Nov. 88	
	Sept. 89	GOM
PACD	Sept. 89	AID

C.

AID Procurement Schedule

GITEC completes preparation of solicitation documents	Nov. 86	GOM
Blanket advertisement released	Nov. 86	GOM AID
Rail tank cars and tanktainers, forklifts, Pallet wagons, pallets, fire fighting equipment	Jan. 87	GOM AID
Solicitations completed for gantry cranes Contracts awarded	Feb. 87	GOM AID
Tanktainers, pallet wagons, pallets, fire fighting equipment delivered	Apr. 87	GOM
Rail cars delivered	Sept. 87	GOM
Gantry cranes delivered, assembled, tested	Sept. 87	GOM
Forklifts delivered	Sept. 87	GOM

IV. PROJECT ANALYSES

A. Technical Analysis Summary

Malawi's road network is concentrated principally in the south, but with a spine road to the north. The railway lies entirely in the south with the lake serving mainly as a north-south link.

The north south ports are Chilumba and Chipoka which will be upgraded for increased cargos of containers, break bulk and fuel. These ports are also transshipment points between truck and lake at Chilumba and lake and rail at Chipoka.

The AID-funded project concentrates on the north-south lake services link, together with the procurement of some mobile equipment for Malawi Cargo Centers (MCC) at Mbeya and Dar es Salaam.

Procurement items are generally for major cargo handling equipment which are standardized from a maintenance and replacement parts point of view if taken from a single source and are also more economical in cost if the source and origin is a Code 941 country such as Zimbabwe.

There will be four Host Country construction contracts, paid under the FAR reimbursement method:

1. Chipoka harbor has its own jetty sufficient for 2 ships docking at the same time, an existing storage warehouse, existing railway siding at the dock and existing fuel facilities. The project will supply a gantry crane for cargo handling, additional fuel storage tanks, a small equipped workshop for plant repair and paved access to the port and fuel facilities.

2. Chilumba Harbor has its own narrow jetty for passengers, a small storage shed and fuel facilities. The project will provide a new cargo berth, a gantry crane for cargo handling and enlarge the storage shed. New concrete storage pads will be provided along with a small equipped workshop. Truck parking and maneuvering area will also be provided. A separate fuel area for unloading of trucks and pumping station will be added.

3. Lake operations include German and British cargo and passenger vessels operating throughout Lake Malawi and serviced at Monkey Bay. The project will improve lake operations through the provision of a new self-propelled 600 ton pontoon vessel (to be financed by IDA) and modifying an existing 500 ton towed pontoon vessel (AID-financed), to be used for transporting containers and fuel. Existing vessels presently carry passengers and break bulk, but are not equipped to handle containerized cargo.

4. Malawi Railways (MR), through its workshops at Monkey Bay Harbor, assembles, repairs and maintains lake vessels, in addition to assembly and repair of major plant and equipment. Vessel operations are also managed through the Monkey Bay headquarters. The project will supply Monkey Bay with a new floating work jetty, machine shop and workshop plus

tools, parts and plant. Skilled workmen and equipment will assemble the new pontoon, modify the existing pontoon and install the new jetty at Monkey Bay. Passenger traffic will be separated from the harbor functions through a new gate building and passenger waiting building.

Procurement Items Include: Two portal frame gantry cranes for use in Tanzania transshipment points and two overhang types to be used in Chilumba and Chipoka ports; one 6-ton and nine 3-ton forklifts; five 2.3-ton hand pallet wagons required for Chipoka, fourteen for Dar and fifteen for Mbeya; mobile foam fire fighting generators are required, two for Chilumba, two for Dar, two for Mbeya, one for Chipoka. 1.2 square meter wooden pallets for Chipoka and Chilumba; twenty-two 45,000 liter tank rail wagons for transporting petrol and diesel fuel on the TAZARA rail line from Dar to Mbeya enroute to Malawi; and thirty-two 16,000-liter tanktainers for transporting jet fuel from Dar to Chipoka.

Engineer's Statement on Section 611 (a) Requirements

Drawings, documents and cost estimates available at the time of the PP preparation are based on the preliminary technical design undertaken by GITEC, the World Bank consulting engineers under the overall NTC project. These documents have been reviewed to the extent possible by the SARP Regional Engineer, in addition to several lengthy discussions with the GITEC consulting engineer, and are considered appropriate and applicable to the project. Cost estimates are considered sufficiently firm to form the basis of the AID project budget.

For a more complete appraisal of the technical aspects of the project, see the full Technical Analysis, Annex G1.

B. Economic and Financial Analysis Summary

1. Lake Vs Road Transport - Project benefits of the lake service project include savings in transport costs from more extensive use of lake relative to road transport. The addition of a cargo vessel, the modification of a cargo vessel, improvements to ports, operation and maintenance facilities are expected to improve the lake cargo substantially. Benefits from these investments are the difference in transport cost between lake service including transshipment and the alternative road transport. Differences in transit time will be minimal.

An estimate of Northern Transport traffic in 1990 is given in Annex G2, Table 5. About 42% of the traffic is break bulk, some 43% is containerized, and the remainder is bulk fuel. The traffic forecast as shown in the table assumes that alternative traffic routes in Mozambique will be open and remain open (fully open scenario). This will decrease the benefits, even though design and capital costs are based on partial closing of the Mozambique routes (half open scenario). It is expected that lake service will attract NTC break bulk traffic because of its cost advantage over road transport as will the container ton kilometers costs, including transshipments.

Lake Service (LS) is a department of Malawi Railways (MR) which operates largely as an independent unit. Accounting functions are performed by a single unit with each vessel and port separated as activity centers and the repair facility at Monkey Bay subdivided into activity centers according to the nature of the work. Net operating income overstates real income because depreciation charges are based on historic rather than replacement costs. Cargo services have been reasonably profitable in most years but passenger service has been unprofitable. Estimates of returns on net replacement cost of fixed assets indicate cargo services have ranged from negative to about 3% in recent years. These low rates of return are attributable to low cargo volume relative to capacity (few voyages annually), unbalanced cargo movement patterns and relatively low tarrifs.

Lake transport has a clear cost advantage compared with road transport.

Table 5. Lake versus Road Transport Tariffs (Tambalas/ton km)

Type	Lake	Road	Difference
Break Bulk	8-11	11-30	3-19
Containers	7	18	11
Fuel	9	30	21

Source MR Transport Performance Bulletin 1983

Goods for transport between the northern port of Chilumba and various points in southern and central Malawi can be moved either by lake transport to and from Chipoka, and often further transshipped on road or railway, or road transport, combined in some cases with rail transport in central and southern areas. The choice of route rests

largely on comparative transport cost. The cost advantage of lake transport is clear as shown in Table 6. Projected financial performance and cash flow are given in Tables 8 and 9.

Table 6. COMPARISON OF TRANSPORT COSTS BY LAKE AND ROAD

(MK per ton)

Route	Lake Transport	Alternative Road Transport	Saving
Chilumba Chipoka:			
Dry Cargo	42	87	45
Fuel	42	151	109

2. Constraints. A number of constraints limit LS's ability to capture a substantial share of traffic despite this cost advantage. These limitations can be: (1) internal constraints such as existing physical capacity, financial resources, technical skills and managerial capabilities limiting the ability to expand services; and (2) external constraints affecting the attractiveness of the overall transport system. A key internal constraint is the size of existing vessel capacity.

Table 7.

Type	Tons/Year	Assumptions
Break bulk (3 vessels)	75,000	6 days/voyage; 100% per voyage capacity utilization
Containers (1 vessel)	46,000	4 days/voyage; 100% per voyage capacity utilization
Fuel (1 vessel)	22,000	4 days/voyage; 50% per voyage capacity utilization

These constraints will be removed through project improvement in vessels, port facilities and operations.

Lake Service Improvement includes the following:

Vessels: new self-propelled 600 ton pontoon for containers and fuel (not AID-funded). Modifications to 500-ton Viphya pontoon for containers and fuel (existing vessels would transport break bulk).

Chipoka Port: a concrete stacking area for containers, forklifts, gantry crane, workshop, 190,000 liter fuel storage tanks, access road to fuel facilities.

Chulumba Port: a concrete stacking area for containers, new jetty,

forklifts, gantry crane, workshop, access road for trucks. Fuel facilities will include pump station, truck pumps, access road, fence gate.

Monkey Bay: floating pontoon jetty with ramp, machine shop, workshop, access road.

Mobile equipment: gantry cranes, railway tank wagons to Tanzania facilities, tanktainers.

Note that for the purpose of this analysis, all costs associated with the Malawi Lake Service will be attributed to the AID grant. In reality, for purposes of cost effectiveness and standardization, substitutions were agreed, whereby another donor (IDA) will finance the floating pontoon, and AID correspondingly fund mobile equipment in Tanzania, including two gantry cranes. There is a negligible cost difference to AID as a result of this change, but a substantial saving to the GOM.

3. Economic Benefits and Costs. Assuming unit cost savings indicated in table 10 and the half-open scenario for traffic projections, benefits substantially exceeed costs, including replacement investments in 1995 and 2002 for cargo handling equipment and workshop tools, the economic life of which is estimated at 7 years. The ERR is 32.1%.

Table 10. BENEFITS AND COSTS OF IMPROVING LAKE FACILITIES

(MK million)

Year	Capital costs	Savings of lake transport vs. road transport	Net benefits
1987	13.3		-13.3
1988	4.8	3.0	-1.8
1989		6.3	6.3
1990		6.0	6.0
1991		6.0	6.0
1992		6.2	6.2
1993		6.4	6.4
1994		6.5	6.5
1995	2.0	6.7	4.7
1996		6.7	6.7
1997		7.0	7.0
1998		7.0	7.0
1999		7.1	7.1
2000		7.4	7.4
2001		7.5	7.5
2002	2.0	7.6	5.6
2003		7.7	7.7
2004		7.8	7.8
2005		7.9	7.9
2006		8.0	8.0
2007		8.1	8.1

Table 11. Benefits and Costs Related to Northern Corridor Project (MK million)

Year	Capital costs	Benefits to diverted traffic	Balaka-Salima *	Savings lake vs road	Net Benefits
1987	62.3				-62.3
1988	41.4	8.0	2.3	3.0	-28.1
1989	1.4	18.9	4.0	6.3	27.8
1990		20.6	4.6	6.0	31.2
1991		21.0	4.8	6.0	31.8
1992		21.3	5.0	6.2	32.5
1993		21.7	5.2	6.4	33.3
1994		22.1	5.5	6.5	34.0
1995	4.6	22.5	5.7	6.7	30.3
1996		23.0	4.9	6.7	35.6
1997		23.5	6.3	7.0	36.8
1998		24.0	6.6	7.0	37.6
1999		24.5	6.9	7.1	38.7
2000		25.5	7.2	7.4	40.4
2001		26.0	7.5	7.5	41.0
2002	4.6	27.0	7.9	7.6	37.8
2003		28.0	8.2	7.7	43.7
2004		29.0	8.0	7.8	45.4
2005		30.0	9.0	7.9	47.5
2006		31.0	9.4	8.0	49.0
2007		31.0	9.6	8.1	49.5

Economic Rate of Return (ERR) is 35%

* Primarily savings in vehicle operating cost on normal traffic.

4. Risks and sensitivity analysis. Governments of Malawi and Tanzania have negotiated the legal framework and procedures essential to efficient operations on the NTC route. The only point of disagreement concerns procedures for direct delivery of Malawi transit traffic between the port at Dar es Salaam operated by the Tanzania Port Authority and the MCC. Representatives of the two Governments have discussed these issues and recognize a mutual advantage in developing NTC for transit traffic of Malawi. The NTC Project was reviewed and approved by SADCC in January 1986.

Another risk is the possibility that traditional routes through Mozambique will reopen at an early date, thus causing some of Malawi's traffic to shift again to these routes. However, reopening one or both of those lines in the foreseeable future seems highly unlikely. Even if insurgency is resolved in the next few years, deterioration of the rail lines is such that several years would be required to restore satisfactory operations.

The sensitivity of the economic return to variations in the estimated costs and benefits indicate that even if the Mozambique routes were to reopen fully as early as 1988, the ERR, for the project as a whole (Table 11) would decrease only moderately from 35% to 27%. For lake transport facilities, ERRs are 32% and returns are acceptable even if costs rise or benefits are reduced substantially. The incremental financial rate of return from increased cash flow with the project is 32.1% (Table 10).

The Lake Service faces two major risks in undertaking this project. These are: (1) the project costs may be higher than estimated, and (2) NTC traffic on the lake may not materialize. In regard to the first risk, significant increases in project costs are unlikely, since contingency allowances are adequate and the civil works components are relatively small in relation to total project costs. Nonetheless, sensitivity analyses assuming a 20% increase in project capital costs show that the base financial rate of return declines from around 32.1% to 26.8%.

The risk that fuel traffic will fall short of the projected volume is small, since: (1) the GOM has decided to import 50% of Malawi's requirements through Tanzania, assuming the fuel handling capabilities of the NTC are developed and the oil companies agree to use the route; (2) LS tariffs for fuel transport are cheaper per ton-km than road transport; and (3) fuel handling facilities are already in place at the main lake ports.

Although the LS's tariffs for breakbulk and container movements are cheaper than road transport rates, there is the risk that shippers may prefer alternative routes to an extent greater than forecast or that the Malawian economy may not perform as well as assumed. However, it seems reasonable that choice of route will be determined largely by the comparative cost and reliability of service. Costs favor the NTC and the operation of the MCCs is designed to assure reliability of transport on the NTC. Transit time on the NTC should be less than on southern routes. The impact of traffic-related risks on the project's viability have been tested by sensitivity analyses (Table 12).

Table 12. SENSITIVITY OF FINANCIAL RATE OF RETURN

Item	Percent
Base Case	32.1
10% Decrease/increase in Container Traffic	29.1 - 35.1
10% Decrease/increase in NTC BreakBulk Traffic	31.4 - 32.8
10% Increase in costs and 10% decrease in savings	26.5
20% Increase in costs	26.8

Sensitivity analyses indicates that the project is viable with substantial decreases in the projected NTC dry cargo traffic levels. This insensitivity to decline in traffic volume

reflects the fact that the LS's vessels have mainly fixed operating costs and tariff levels are sufficiently high to allow breakeven at low levels of capacity utilization. In the case of the proposed project container vessel, for example, the operating cashflow breakeven point, when carrying containers but no fuel, is only 18% of the annual container load capacity of 42,000 tons. However, since the costs are predominantly fuel, this project's viability is very sensitive to fuel price increases not matched by appropriate tariff increases or sufficient gains in traffic. Sensitivity analyses indicate that a 10% increase in fuel prices decreases the base cost financial rate of return from 32.1% to 26%. Declining fuel prices are likely to increase the rate of return, but may not increase the competitiveness of lake transport.

For additional details on the economic and financial assesment of the NTC and Lake Services projects, see Annex G2.

C. Social Analysis

The social feasibility of this project is very positive, as is demonstrated in the economic analysis of this paper. It will bring general benefits to the country as a whole by increasing national transport options and by upgradi the quality and reliability of land and water routes. The project's most significant overall social benefit for Malawi that it will help develop the northern sector of the country building up trade routes in that area and by providing a bett link between the northern and southern regions of the country. Trade between Malawi and Tanzania, which has traditionally be at a low level, is beginning to show signs of increasing substantially on a barter basis. This trend should be accelerated by the project.

Since lake traffic already exists, although at a relatively low level, the project will not introduce any major new innovations which could be disruptive or threathen socio-cultural traditions. There appears to be no opposition to the project from the people most affected, those who live near the lake ports where most of the project activities will take place. It is difficult to see how any of the affected population might be burdened or disadvantaged by the project o by activities arising from the project.

On the contrary, important benefits are foreseen for people in the project areas. First there will be a marked increase in employment opportunities both during the construction phase and continuing in the operational stages. For example, jobs at the relatively remote port at Chilumba ar likely to increase four or five fold, from about 25 to more than 100. The project will result in more cargo traffic, more passenger traffic and more maintenance requirements, resulting in a generally higher level of economic activity. Training will be provided by Malawi Railways at both ports and the Monkey Bay facility, which will upgrade the skills of both new and old workers. Since project sites are all in rural areas, the project will produce no trend toward urbanization.

Since this is a capital project involving operations at specific locations, no spread effect through the diffusion of innovation is likely to result directly. Nevertheless, a positive socio-economic impact is foreseen by providing a faster, less expensive and more reliable route for goods and people between the northern and southern regions of Malawi, as well as a major impetus to international trade for Malawi as a landlocked country.

For additional material on the social effects of the project, see the Economic and Financial Analysis, Annex G2 and the Environmental Assessment, Annex G4.

D. Administrative Analysis

1. AID Management Responsibility

This project is part of the AID Southern Africa Regional Program and falls under the umbrella S.A Regional Transport project. Nevertheless, Malawi is the clear beneficiary of the project, and the AID grant will be signed with the Government of Malawi. For this reason, AID project responsibility will rest with USAID/Malawi, once the project is authorized by the Director of USAID/Zimbabwe, who is concurrently Director of the S.A. Regional program. This authorizing authority has been granted by AID/Washington under Delegation of Authority 140 and an ad hoc delegation dropping the requirement for the concurrence of REDSO/ESA in Nairobi and authorizing execution of the Grant Agreement by USAID/Malawi with the GOM (State 166125). Under this procedure, after authorization, the Director of USAID/Zimbabwe and the Regional Program will redelegate authority to sign the Grant Agreement to USAID/Malawi.

Technical support for project implementation will be provided to the Malawi mission by the S.A. Regional Engineer in Harare. Additional support will be provided by the Regional Legal Advisor, the Regional Commodity Management Officer at REDSO/ESA in Nairobi, and the Regional Financial Management Center on an intermittent and as-needed basis.

With respect to day-to-day management of the project, a resident Project Manager will be hired from project funds under a Personal Services Contract. .A job description for this position is included as Annex H to the Project Paper. The incumbent may be a Malawian or citizen of a SADCC country with good project management experience and skills in transport economics and finance. Since this project is closely linked to the Malawi Commercial Transport project, the manager is expected to devote part of his time to the implementation of this related activity. It should be stressed that the Project Manager will work under a Personal Services Contract for USAID/Malawi, not for the GOM, and will be supervised closely by the mission Project Development Officer.

Because of the implementation and payment methods selected, no separate provision is being made for audit. The construction costs will be paid by FAR, and all commodity procurement will be paid for by AID through Direct Letters of Commitment. Although Host Country Contracts will be used, all contracting actions will be reviewed by USAID and RFMC prior to their completion.

2. Project Design Characteristics

This project has been designed to be implemented in as simple a manner as possible. Basically AID is financing local construction and the procurement of equipment. Except for the PSC Project Manager and perhaps a short-term technical consultant, no U.S. technical assistance in the normal sense is being provided. As described fully in the Implementation Plan and Annex G3 on administrative and procurement procedures, all construction will be under the FAR method of payment and all procurement will be undertaken by the Malawian Ministry of Works and Supply (MOWS).

This procedure will greatly simplify AID management and will permit rapid project implementation. As indicated in the Implementation Plan in the preceding section, considerable thought was given to this decision. This approach substantially lessens AID's control over project activities, but Malawi's excellent record in construction mamagement and procurement under other activities and the fact that project elements lend themselves ideally to the FAR concept, enabled the Mission and the PP team to make such an important management decision with confidence.

3. Coordination with Other Donors in the NTC Project

It has been mentioned that the AID Northern Corridor project is relatively independent and a worthwhile activity in itself, although without the elements provided by other donors, it would be limited to internal Malawian transport development and would not result in access to the sea. To provide optimal coordination among components of the overall NTC project, design drawings and contract documents with costs are being prepared by GITEC, a West German consulting company under World Bank contract. The Ministry of Works and Supplies normally prepares specifications and bid documents and is probably the most experienced and skilled of African countries in preparation of bidding, contracting and procurement documents.

The World Bank is financing the services of a full-time coordinator for the NTC project, who has already been assigned for six months to the MOTC as part of a three year contract. The individual selected, Captain Claude Lefevre, is particularly suitable for this role, with 20 years of merchant marine experience and six years in a senior management position at the port of Dar es Salaam. From AID's viewpoint, he is ideally suited not only to oversee the multidonor NTC project, but also as a valuable point of contact for AID, whose project concentrates on the upgrading of the port facilities on Lake Malawi.

Formal coordination among donors is already taking place through monthly Steering Committee meetings in Lilongwe under the auspices of the MOTC and separate donor meetings to discuss funding arrangements and the division of labor for the overall NTC project. One such Steering Committee was held on June 16, just as the the PP team was completing its field work in Malawi. At this meeting, GITEC presented the latest and hopefully final cost estimates for preliminary design of the elements of the overall project to be financed by AID. The balance of the total budget to be covered by other donors is expected to be ready by the next meeting on July 10, 1986 in Lilongwe.

After the design stage is complete, the Steering Committee will continue to meet to discuss implementation issues, but on a quarterly, rather than monthly basis. These meetings will include donor representatives, Malawi Railways, the MOTC and MOWS, and the project supervisory engineers. GITEC's contract is for design only, and if it is to continue in the supervision of construction role, it must win another competitive contract for this purpose.

4. Procurement, Contracting and Payment Arrangements

A general discussion of procurement and contracting procedures is set forth in the project Implementation Plan above. In addition, a few important procedures involving project administration are summarized here. Further details on these arrangements are provided in the Annex G3

Preparation of construction drawings and documents will be prepared by GITEC for MOWS under normal GOM host country contracts, generally reviewed by the SARP engineer and given out to tender. The amount of FAR reimbursement of line items will be determined by the SARP engineer in conjunction with GITEC and MOWS, prior to bid opening and confirmed by Implementation Letter to the MOWS.

After award of contract, supervision will be by the World Bank consultant and payment made to GOM by AID's Regional Financial Management Center (RFMC) in Nairobi through updated quarterly advances prepared by MOWS and the World Bank Coordinator. AID/Malawi, together with the SARP engineer, will administratively and technically approve advances and disbursements, until FAR line items and the contracts are completed. Monitoring of progress will be done by the PSC Project Manager and the SARP engineer, nomally on a monthly basis. This procedure will apply similarly to all construction contracts. Monitoring correlation between construction contracts and procurement will be by the World Bank Coordinator and MOWS, advised by USAID/Malawi and the SARP engineer.

Procurement will be through MOWS, with coordination and correlation with Malawi Railways. AID/Malawi and the SARP engineer will advise the GOM on timing and funding.

5. Project Evaluation

Two formal evaluations of the AID project are planned. The first will be scheduled for October 1987, roughtly the mid-point of the project, when all construction contracts are in operation, and major procurement items have been delivered. By this time, all components of the overall multidonor project will be under way. The evaluation of the AID components should also include a brief progress summary of the overall project.

The Evaluation Team should include a project officer, engineer and transport economist for a period of three weeks for site visits, discussions and report writing. The project officer and transport economist may be from the USAID/Zimbabwe Regional Office or REDSO/Nairobi, but it is anticipated that at least one senior team member will be external. Evaluation funds have been provided in the project budget for this purpose.

The second formal evaluation is scheduled for December 1988, when the project will be virtually complete. The objective will be to ensure that all planned outputs are in place and functioning as expected. Again the Evaluation Team will consist of a combination of AID and GOM personnel familiar with the project and one or more outside experts.

E. Environmental Analysis Summary

An Environmental Assessment was undertaken by the Regional Environmental Officer from REDSO/Nairobi in June, 1986. The scoping statement for the assessment was sent to AID/Washington, where it was reviewed and approved per State 162705. The full text of the Environmental Assessment was cabled to Washington for the approval of the Africa Bureau Environmental Officer, which was received on June 27, 1986.

Following is a summary of the conclusions of the Environmental Assessment:

A. Most project activities will have little or no significant impact on lake environment.

B. During rehabilitation, paving and general construction at Chilumba Port, adequate septic tank/cesspit and/or soak zone should be provided for local sewage at the port.

C. The GOM should be requested to present legislation to ensure that restrictions on transport of hazardous substances, especially pesticide concentrates, toxic chemicals, etc., apply to lake traffic. If requested by the GOM, the Regional Environmental Officer is prepared to recommend consultative assistance on this matter through AID's centrally funded Environmental Protection Management project (EPM).

The complete Environmental Assessment is contained in Annex G4.

V. CONDITIONS AND COVENANTS

The Project Grant Agreement will contain the following conditions precedent to all disbursement under the project, except for the funding of the AID Project Manager.

That the GOM shall furnish to AID, in form and substance satisfactory to AID:

1. Evidence that it has executed an agreement with the Government of Tanzania governing operations of the Malawi-Tanzania Corridor Transport System, which is to include an ancillary agreement between Malawi Railways and the Tanzania Zambia Railway Authority for the establishment and operation of the Malawi Cargo Centers at Dar and Mbeya; and also to include signed lease agreements with Malawi Railways as lessee of the two planned sites for the Malawi Cargo Centers.

2. Evidence that the United Kingdom/ODA or other donor(s) has made a firm commitment to provide the planned financing for the Malawi Cargo Centers in Tanzania and tools and equipment for vessel maintenance/repair in Malawi, as part of the Northern Transport Corridor multi-donor activity.

3. Individual final design and specifications for each contract for construction and works to be financed by AID.

The Grant Agreement shall contain the following covenants:

1. The Cooperating Country shall provide sufficient trained staff to operate adequately each of the four transshipment facilities.

2. The Cooperating Country shall make available port facilities and personnel to operate the vessels on Lake Malawi and to staff the vessel maintenance/repair facility at Monkey Bay.

ANNEX A

LOGFRAME

GOAL:

To provide Malawi with a more reliable and cost effective option for international transport.

PURPOSE:

To improve Malawi's access to the coastal port of Dar es Salaam, deemed to be potentially Malawi's most efficient available access to the sea, by providing, in conjunction with other donors, a comprehensive northern transport corridor through Malawi and Tanzania, along with the necessary linkages with road, lake and rail transit systems. (The AID-funded portion of the overall project will concentrate on the upgrading of port services on Lake Malawi and some equipment for the two Malawi Cargo Centers at transshipment points in Tanzania.)

OUTPUTS:

1. Upgraded facilities at the port at Chilumba, including construction of a jetty, installation of a gantry crane, forklifts, hard concrete container storage area and access road, to permit 95,000 mt of break bulk and 79,000 mt of container cargo to be transshipped annually. Supporting facilities installed, comprising petrol and diesel unloading points, including pump station, pipework and access road

2. Upgraded facilities at the port at Chipoka, including installation of a gantry crane, fork lifts, hard concrete storage area, workshop and access road, to permit 60,000 mt of break bulk and 79,000 mt of container cargo to be transshipped annually. A 100,000 liter diesel storage tank and 90,000 liter petrol storage tank will be added to the existing fuel facilities.

3. Upgraded facilities for ship repair and maintenance at Monkey Bay, including provision of a new floating platform for berthing of two ships, machine shop, workshop, gatehouse, etc, to permit more efficient operation.

4. Malawi Cargo Centers at the port of Dar es Salaam and at the transshipment point at Mbeya, Tanzania, established in conjunction with British aid from ODA, through the provision of movable equipment similar to that provided at the two ports on Lake Malawi. This equipment, which can be procured from Zimbabwe, will be financed by AID for reasons of compatibility and cost effectiveness. The balance of the necessary equipment will be financed by ODA.

INPUTS:

1. Commodity Procurement
   - 4 gantry cranes
   - 9 (3-ton) fork lifts
   - 1 (6-ton) fork lift
   - 34 (2.3-ton) pallet wagons
   - 7 foam generators
   - 22 (45,000 liter) rail tank wagons
   - 40m x 17.5m x 1.8m pontoon raft with ramp and bridge
   - 32 16,000 liter tanktainers

2. Local cost financing of Host Country construction contracts
   - Vipya pontoon modification
   - Monkey Bay civil and building works
   - Chipoka civil and building works
   - Chilumba civil and building works

Verifiable Indicators

Measure of Goal Achievement
- Increase in exports
- decrease in transport cost of imports and exports
- decrease in transport time of imports and exports

End of Project Status (EOPS)

Increase in cargo shipped via Lake Malawi ports to levels of:
95,000 MT break bulk and 79,000 MT in container cargo at Chilumba.
60,000 MT break bulk and 79,000 MT in container cargo at Chipoka.

Increase in repair and maintneance capacity at Monkey Bay of at least 50%.

Employment generation doubles number of jobs at all 3 lake facilities.

Competence level of personnel at Monkey Bay and lake ports improves markedly as a result of training and experience.

Malawi Cargo Centers at Mbeya and Dar handle at least 150,000 MT of cargo per year.

Magnitude (value in $000)	F/X	L/C
Chilumba Port civil works & equipment	1345	1030
Chipoka Port civil works & equipment	1241	655
Monkey Bay buildings, jetty, pontoon modification	865	1287
Cargo Centers at Dar & Mbeya gantry cranes, minor equipment	1498	-
Other - rail wagons	847	-
tanktainers	400	-

Funding Target (in U.S.$)

2,906,000	
243,000	
72,000	
186,000	
847,000	
677,000	
400,000	
334,000	
1,141,000	
946,000	
1,416,000	
253,000	
66,000	
948,000	
10,435,000	
$10,500,000 (rounded)	

Means of Verification

Goal: Malawi national level trade statistics

Purpose: MOTC records
Malawi Railways (MR) records on tonnage whipped by rail and lake vessels

Outputs:
1. Records of Chilumba Port on tonnage shipped.
2. Records of Chipoka Port on tonnage shipped.
3. Records of Monkey Bay maintenance facility on repairs to vessels and port equipment; records on training of personnel.
4. Records of Malawi Cargo Centers in Dar and Mbeya on container cargo and break bulk transshipped.

Inputs:
1. Procurement specs and documents
Cost records of suppliers and GOM procurement agent
2. Contracting and construction records of MOWS
Records of private contractors on civil works and building construction

Important Assumptions

Goal:
1. Development of a northern corridor transport route will continue to be a high priority with GOM.

Purpose:
1. GOM/GOT Bilateral Agreement on Malawi Cargo Centers at Dar es Salaam and Mbeya will be executed as planned by September, 1986.

2. Mozambique corridor will not develop as a viable transport option for Malawi for the next five years, requiring both upgrading of facilities and solution to security problems in Mozambique.

3. Commitments by other donors UK/ODA, IBRD, EEC, FRG will materialize as planned to fund other elements of overall NTC network.

4. Traffic flows will build up as N. Corridor is completed and will maintain at a high level (xxx mt por year).

Outputs:
1. Malawi Railways will be able to operate the four transit points at Dar, Mbeya, Chilumba and Chipoka efficiently.

2. Suitable personnel will be hired and trained locally at each facility.

3. Profitability of containerized cargo along NTC will be sufficient to attract an appropriate level of commercial freight

4. Lake vessels can be operated efficiently and safely using facilities at Monkey Bay and the two ports.

Inputs:
1. Planned construction can satisfactorily be performed either by Malawi Railways force account or by local private contractors.

2. F.A.R. will be an effective method of payment for construction services.

3. Procurement of a significant amount of the required equipment can be from nearby code 941 countries.

LOGFRAME

ANNEX A

GOAL	MEASURE OF GOAL ACHIEVEMENT	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
To provide Malawi with a more reliable and cost effective option for international transport	Increase in exports Decrease in transport cost of imports and exports Decrease in transport time of imports and exports	Malawi national level trade statistics	1. Development of a northern corridor transport route will continue to be a high priority with GOM.

PURPOSE	END OF PROJECT STATUS (EOPS)	MEANS OF VERIFICATION	ASSUMPTIONS
To improve Malawi's access to the coastal port of Dar es Salaam, deemed to be potenially Malawi's most efficient available access to the sea, by providing, in conjunction with other donors, a comprehensive northern transport corridor through Malawi and Tanzania, along with the necessary linkages with road, lake and rail transit systems. (The AID-funded portion of the overall project will concentrate on the upgrading of port services on Lake Malawi and some equipment for the two Malawi Cargo Centers at transshipment points in Tanzania.)	Increase in cargo shipped via Lake Malawi ports to levels of: 95,000 MT break bulk and 79,000 MT in container cargo at Chilumba. 60,000 MT break bulk and 79,000 MT in container cargo at Chipoka. Increase in repair and maintenance capacity at Monkey Bay of at least 50%. Employment generation doubles number of jobs at all 3 lake facilities. Competence level of personnel at Monkey Bay and lake ports improves markedly as a result of training and experience. Malawi cargo centers at Mbeya and Dar handle at least 150,000 MT of cargo per year.	MOTC records Malawi Railways (MR) records on tonnage whipped by rail and lake vessels	1. GOM/GOT Bilateral Agreement on Malawi Cargo Centers at Dar es Salaam and Mbeya will be executed as planned by September, 1986. 2. Mozambique corridor will <u>not</u> develope as a viable transport option for Malawi for the next five years, requiring both upgrading of facilities and solution to security problems in Mozambique. 3. Commitments by other donors UK/ODA IBRD, EEC, FRG will materialize as planned to fund other elements of overall NTC network. 4. Traffic flows will build up as N. Corridor is completed and will maintain at a high level (xxx mt per year)

OUTPUTS	MAGNITUDE			VERIFIABLE INDICATORS	ASSUMPTIONS
	(value in $000)	F/X	L/C		
1. Upgraded facilities at the port at Chilumba, including construction of a jetty, installation of a gantry crane, forklifts hard concrete container storage area and access road to permit 95,000 mt of break bulk and 79,000 mt of container cargo to be transshipped annually. Supporting facilities installed, comprising petrol and diesel unloading points, including pump station, pipework and access road.	Chilumba Port civil works and equipment	1345	1030	1. Records of Chilumba Port on tonnage shipped. 2. Records of Chipoka Port on tonnage shipped. 3. Records of Monkey Bay maintenance facility on repairs to vessels and port equipment: records on training personnel. 4. Records of Malawi Cargo Centers in Dar and Mbeya on container cargo and break bulk transshipped.	1. Malawi Railways will be able to operate the four transit points at Dar, Mbeya, Chilumba and Chipoka efficiently. 2. Suitable personnel will be hired and trained locally at each facility. 3. Profitability of containerized cargo along NTC will be sufficient to attract an appropriate level of commercial freight. 4. Lake vessels can be operated efficiently and safely using facilities at Monkey Bay and the two ports.
2. Upgraded facilities at the port at Chipoka, including installation of a gantry crane, forklifts, hard concrete storage area, workshop and access road to permit 60,000 mt of break bulk and 79,000 mt of container cargo to be transshipped annually. A 100,000 liter diesel storage tank and 90,000 liter petrol storage tank will be added to the existing fuel facilities.	Chipoka Port civil works and equipment	1241	655		

OUTPUTS continued...	MAGNITUDE continued...			VERIFIABLE INDICATORS continued...	ASSUMPTIONS continued...
3. Upgraded facilites for ship repair and maintenance at Monkey Bay, including provision of a new floating platform for berthing of two ships, machine shop, workshop, gatehouse, etc. to permit more efficient operation	Monkey Bay buildings, jetty, pontoon modification	865	1287		
4. Malawi Cargo Centers at the port of Dar es Salaam and at the transhipment point at Mbeya, Tanzania, established in conjunction with British aid from ODA, through the provision of movable equipment similar to that provided at the two ports on Lake Malawi. This equipment which can be procured from Zimbabwe, will be financed by AID for reasons of compatibility and cost effectiveness. The balance of the necessary equipment will be financed by ODA.	Cargo Centers at Dar/Mbeya gantry cranes, minor equipment	1498	-		
	Other - rail wagons	847	-		
	tanktainers	400	-		

INPUTS	FUNDING TARGET (value in $000)	VERIFICATION	ASSUMPTIONS
1. Commodity Procurement		INPUTS:	
4 gantry cranes	2,906.000	1. Procurement specs and documents. Cost records of suppliers and GOM procurement agent	1. Planned construction can satisfactorily be performed either by Malawi Railways force account or by local private contractors.
9 (3-ton) fork lifts and			
1 (6-ton) fork lift	243.000	2. Contracting and construction records of MOWS. Records of private contractors on civil works and building construction.	2. FAR will be an effective method of payment for construction services.
34 (2.3-ton) pallet wagons	72.000		
7 foam generators	186.000		3. Procurement of a significant amount of the required equipment can be from nearby code 941 countries.
22 (45.000 liter rail tank wagons	847.000		
40 m x 17.5m x 1.8m pontoon raft with ramp and bridge	677.000		
32 16.000 liter tanktainers	400.000		
2. Local cost financing of Host Country construction contracts			
Vipya pontoon modification	344.000		
Monkey Bay civil and building works	1,414.000		
Cipoka civil and building works	946.000		
Chilumba civil and building works	1,416.000		
3. Other			
Project Manager	253.000		
Evaluation and Consultants	66.000		
Contingencies	1,013,000		
TOTAL	10,500,000		

E-

ANNEX B

ACTION: AID-2 INFO: AMB DCM ECON

VZCZCLG0416
RR RUEHLG
DE RUEHC #6125/01 1472315
ZNR UUUUU ZZH
R 2723122 MAY 86
FM SECSTATE WASHDC
TO RUEHSB/AMEMBASSY HARARE 0098
RUEHLG/AMEMBASSY LILONGWE 9556
INFO RUEHMB/AMEMBASSY MBABANE 7992
RUEHRU/AMEMBASSY MASERU 9616
RUEHLS/AMEMBASSY LUSAKA 0825
RUEHGR/AMEMBASSY GABORONE 9255
IT

LOC: 36/37 3
29 MAY 86 233
CN: 24995
CHRG: AID
DIST: AID

UNCLAS SECTION 01 OF 03 STATE 166125

AIDAC NAIROBI, FOR REDSO

E.O. 12356: N/A
TAGS:
SUBJECT: SOUTHERN AFRICA REGIONAL TRANSPORT PID (690-0237)

1. ECPR FOR SUBJECT PID TOOK PLACE ON MAY 5 UNDER CHAIRMANSHIP OF DAA SAIERS. PID WAS APPROVED, BOTH WITH RESPECT TO THE OVERALL FRAMEWORK FOR A CONTINUING SERIES OF TRANSPORT DEVELOPMENT ACTIVITIES IN THE SADCC REGION, AS WELL AS THE TWO SPECFIC ACTIVITIES PROPOSED IN THE PID. THE SARP/HARARE OFFICE IS AUTHORIZED TO PROCEED WITH FINAL DESIGN OF THESE TWO ACTIVITIES, THE MALAWI NORTHERN CORRIDOR AND THE UNCTAD GRANT FOR TECHNICAL ASSISTANCE AND TRAINING. THE FOLLOWING CONCLUSIONS EMERGED FROM ISSUES DISCUSSED AT THE ECPR MEETING AND SHOULD SERVE AS GUIDANCE FOR PREPARATION OF THE TWO PROJECT PAPERS.

-- A. PROJECT FORMAT AND PROCEDURES - AGREEMENT WAS REACHED THAT THE TRANSPORT SECTOR IS SUFFICIENTLY CRITICAL FOR THE SADCC REGION TO LAY CLAIM TO A MAJOR PORTION OF THE FUNDS LIKELY TO BE AVAILABLE TO THE SA REGIONAL PROGRAM OVER THE NEXT FIVE YEARS. THE SECTOR

CONCEPT OF THE PID WAS ACCEPTED, AND THE COMMITTEE AGREED THAT THE PID PROVIDED A GOOD RATIONALE FOR MAJOR AID ASSISTANCE IN THE TRANSPORT SECTOR FOR THE NEAT SEVERAL YEARS. IT WAS NOTED THAT THE LOLS 50 MILLION LCP TOTAL IN THE PID WILL NOT ACTUALLY BE AUTHORIZED AT ONCE, BUT WILL BE DEPENDENT ON THE PIECEMEAL APPROVAL OF EACH INDIVIDUAL ACTIVITY. THE MISSION SHOULD TAKE CARE TO ENSURE CONSISTENT TREATMENT OF FUTURE ACTIVITIES, SINCE A POTENTIAL FOR CONFUSION IN PROJECT ACCOUNTING EXISTS FOR THIS KIND OF UMBRELLA ACTIVITY. AID/W UNDERSTANDS THAT MISSION INTENDS TO TREAT EACH ACTIVITY AS A SEPARATE PROJECT, INCLUDING SEPARATE PROJECT NUMBERS AND CNS INDICATING THAT EACH PROJECT IS AN

INDEPENDENT ENTITY. IN THIS CASE THE FIELD CAN EXERCISE DOLS 10 MILLION AUTHORITY FOR EACH ACTIVITY. ALTERNATIVELY, IF A SINGLE DOLS 50 MILLION PROJECT WITH SUB-ACTIVITIES IS INTENDED, AN AD HOC DOA MUST BE REQUESTED ONCE THE CUMULATIVE TOTAL OF ACTIVITIES EXCEEDS DOLS 10 MILLION. SINCE THIS AMOUNT IS EXCEEDED WITH THE FIRST TWO PROJECTS, EFFECTIVELY THIS MEANS AN AD HOC DOA WITH EACH SUBSEQUENT ACTIVITY. THE TWO FORTHCOMING PPS, AND FUTURE PPS, SHOULD BE BOTH CLEAR AND CONSISTENT ON THIS POINT.

THE PROPOSAL FOR SYNOPSIS CABLES ON FUTURE ACTIVITIES, WITH FIELD APPROVAL LIKELY FOR MOST PPS, WAS ACCEPTABLE TO THE COMMITTEE AND CHAIRMAN, WHO CONSIDERED THAT POLICY CONSIDERATIONS AND THE RELATIVE RANKING OF PROPOSALS COULD BE ADDRESSED ON THE BASIS OF THE SYNOPSIS CABLES, AND THAT TECHNICAL FACTORS COULD BE DEALT WITH MOST EFFECTIVELY IN THE FIELD BY SARP/HARARE, REDSO AND THE MISSIONS INVOLVED.

-- B. PROHIBITED COUNTRIES - OF THE TWO ACTIVITIES IN THE PID, THE MALAWI NORTHERN CORRIDOR, ON THE BASIS OF FACTS KNOWN TO THE ECPR, APPEARS TO POSE NO PROBLEM REGARDING PROHIBITED COUNTRIES. CARE SHOULD BE TAKEN, HOWEVER, THAT THE TA GRANT TO UNCTAD DOES NOT PROVIDE DIRECT ASSISTANCE TO THE PROHIBITED COUNTRIES. AS IS STANDARD WITH THE REGIONAL PROGRAM, A LEGAL OPINION PREPARED BY THE RLA SHOULD BE ANNEXED TO THE PP FULLY REVIEWING THE RELEVANT FACTS AND DEMONSTRATING THAT UNDER THE PROJECT AS DESIGNED, DIRECT AID ASSISTANCE WILL NOT BE PROVIDED TO THE PROHIBITED COUNTRIES. THE ISSUE OF THE PROHIBITED COUNTRIES SHOULD ALSO BE DISCUSSED IN THE SYNOPSIS CABLE FOR EACH ACTIVITY.

C. DONOR COORDINATION - ALTHOUGH THIS IS BASICALLY A WORLD BAN RESPONSIBILITY, THE MAWAWI NORTHERN CORRIDOR PP DESIGN SHOULD ENSURE THAT AID REQUIREMENTS ARE BUILT INTO BID DOCUMENTS. THIS WILL REQUIRE CLOSE MONITORING BY SARP ENGINEER, RLA AND IQC ENGINEERS. THE WORLD BANK IS EXPECTING TO MANAGE AND FINANCE A&E AND SUPERVISION OF CONSTRUCTION FOR THE NORTHERN CORRIDOR AS A WHOLE. DESPITE A SUGGESTION BY AFR/TR/ENG THAT AID ASSUME RESPONSIBILITY FOR THIS FUNCTION ON THE PORTION OF THE OVERALL PROJECT WHICH WE ARE FINANCING, THE CHAIRMAN SAW NO COMPELLING REASON TO DISTURB THE ARRANGLMENTS MADE BY THE WORLD BANK FOR A&E WORK AND CONSTRUCTION SUPERVISON. THIS ALTERATION WOULD COST AID MORE, COULD COMPLICATE AND DELAY PROJECT IMPLEMENTATION, AND IN ANY CASE WAS DEEMED TO BE UNNECESSARY IN VIEW OF THE PROPOSED USE OF A U.S. IQC FIRM TO REVIEW SPECIFICATIONS AND BID DOCUMENTS PREPARED BY THE BANK-FINANCED FIRM. AS A MULTI-DONOR EFFORT, ASSURANCES MUST BE SOUGHT FROM OTHER ET

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AIDAC NAIROBI, FOR REDSO

DONORS THAT THEIR PLEDGED INPUTS WILL BE DELIVERED ON TIME. CP PRIOR TO DISBURSEMENT CAN BE USED AS SAFEGUARD, BUT THE PP SHOULD ALSO STATE, WITH SUPPORTING FACTS, THAT WE HAVE REASONABLE ASSURANCES PRIOR TO OBLIGATION THAT OTHER DONOR AID WILL BE FORTHCOMING IN A TIMELY MANNER. BANK AND GOM ARE IN BEST POSITION TO COORDINATE THIS MATTER.

-- D. TECHNICAL HELP ON DESIGN - PER DISCUSSION WITH MORRIS AND LIGHT, WE ARE PROCEEDING WITH IQC HELP ON PREPARATION OF BID DOCUMENTS AND RFP. WOULD APPRECIATE CABLED SOW FROM SARP TO EXPEDITE PROCESSING OF WORK ORDER. ALSO AFR/TR/ENG IS EXPLORING POSSIBILITY OF SENDING ENGINEER WITH PORT CONSTRUCTION EXPERIENCE IN MID-JUNE TO SERVE ON PP TEAM.

-- E. GOM-GOT AGREEMENT - WHAT IS STATUS OF GOM-GOT AGREEMENT ON THE AUTONOMOUS USE OF PORT FACILITIES AT DAR, SIMILAR TO AGREEMENT WITH ZAMBIA? MISSION SHOULD CHECK TO DETERMINE WHETHER THIS AGREEMENT WILL BE SIGNED BY THE TIME THE PP IS COMPLETED. WORLD BANK EAST AFRICA TRANSPORT OFFICE PREDICTS A JUNE SIGNING OF GOM-GOT AGREEMENT, BUT THIS SHOULD BE MONITORED CLOSELY BY THE MISSION AND DESCRIBED IN THE PP, INCLUDING ASSESSMENT OF HOW MUCH AUTONOMY MALAWI WILL HAVE. SINCE A SUCCESSFUL GOM-GOT AGREEMENT ON PORT FACILITIES IS ONE OF THE MAJOR PILLARS ON WHICH THE ECONOMIC RATIONALE OF THE OVERALL NORTHERN CORRIDOR CONCEPT RESTS, THE PP MUST STATE THE BASIS FOR ASSURANCES THAT THE GOM-GOT PORT AGREEMENT WILL BE SUCESSFULLY REACHED AND SIGNED WITHIN A

REASONABLE TIME PERIOD WHICH WILL NOT ADVERSELY AFFECT THE PROJECT'S IMPLEMENTATION SCHEDULE. FURTHERMORE, IF THE GOM-GOT PORT AGREEMENT IS NOT SIGNED BY THE TIME OUR PROJECT IS OTHERWISE READY TO BE OBLIGATED, A CONDITION PRECEDENT TO DISBURSEMENT WILL BE MADE PART OF THE GRANT AGREEMENT, REQUIRING A SATISFACTORY PORT AGREEMENT BETWEEN THE TWO GOVERNMENTS.

- F. MISSION RESPONSIBILITY - COMMITTEE CONSENSUS, SUPPORTED BY CHAIRMAN, WAS THAT QUESTION OF MISSION VS REGIONAL MANAGEMENT RESPONSIBILITY IS A MATTER TO BE DECIDED FOR EACH PROJECT ON A CASE-BY-CASE BASIS. IN MALAWI NORTHERN CORRIDOR PROJECT, THE COMMITTEE AGREED THAT CIRCUMSTANCES SUPPORT GIVING USAID/MALAWI OVERALL MANAGEMENT RESPONSIBILITY, WITH ONGOING HELP FROM SARP AND REDSO AS NEEDED. PP SHOULD REFLECT THIS DECISION, ALONG WITH A FULL EXPLANATION OF THE DIVISION OF LABOR AMONG AID MANAGEMENT ENTITIES. SINCE PROJECT APPROVAL AND IMPLEMENTATION AUTHORITY FOR THE SARP PROGRAM IS FORMALLY DELEGATED TO THE DIRECTOR OF USAID/ZIMBABWE, REDELEGATION BY USAID/Z TO USAID/MALAWI WOULD BE REQUIRED.

- G. FINAL TECHNICAL DESIGN AND COST ESTIMATE - SINCE THE OVERALL FINAL DESIGN AND BUDGET FOR MALAWI CORRIDOR

ARE BEING DONE BY GERMAN FIRM OF GITEC AND WILL NOT BE READY BEFORE THE END OF JUNE AND PERHAPS LATER, OUR PP BUDGET WILL PROBABLY HAVE TO BE BASED MAINLY ON PRELIMINARY TECHNICAL DESIGN. HOWEVER, SINCE CHANGES IN TECHNICAL OPTIONS CAN AFFECT COSTS SUBSTANTIALLY AND SINCE BUDGET NOW BEING PREPARED BY GITEC MAY BE SIGNIFICANTLY ABOVE EARLIER ESTIMATES (ACCORDING TO BANK'S EAST AFRICA TRANSPORT DIVISION), THE PP TEAM SHOULD ENSURE THAT THE LATEST AVAILABLE TECHNICAL AND COST INFORMATION IS TAKEN INTO ACCOUNT AND SHOULD MAINTAIN CLOSE COORDINATION WITH WORLD BANK AND GOM ON THE MATTER OF THE CONSTRUCTION DESIGN AND COST ESTIMATES. IN LIGHT OF THESE ANTICIPATED COST INCREASES BEYOND THE PAIP ESTIMATE OF DOLS 9.5 MILLION FOR THE NORTHERN CORRIDOR, THE DOA IN PARA 3 BELOW IS WRITTEN WITH SOME FLEXIBILITY TO PERMIT AUTHORIZATION OF A MAXIMUM AMOUNT OF DOLS 11.5 MILLION, IF NECESSARY, TO AVOID THE NEED FOR AN AMENDED DOA.

-- H. PROJECT SELECTION CRITERIA - CRITERIA OF PAGE 9 OF PID WERE GENERALLY ACCEPTED, BUT SHOULD BE EXPANDED,

REFINED, RANKED AND REVIEWED PERIODICALLY IN THE COURSE OF SARP DISCUSSIONS WITH SATCC. FUTURE SYNOPSIS CABLES SHOULD DEMONSTRATE HOW SELECTED ACTIVITIES MEET THESE CRITERIA BETTER THAN POSSIBLE ALTERNATIVE CHOICES.

-- I. INVOLVEMENT OF OTHER AID MISSIONS - RELEVANT AID MISSIONS IN SADCC COUNTRIES SHOULD BE CONSULTED AT THE FORMATIVE STAGE OF PROPOSALS FOR FUTURE TRANSPORT ACTIVITIES UNDER THIS PROJECT.

-- J. PROJECT ANALYSES FOR NORTHERN CORRIDOR PP - THE PROJECT PAPER SHOULD INCLUDE FINANCIAL AND ADMINISTRATIVE ANALYSES, NOT MENTIONED IN PID OUTLINE OF BT
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PP REQUIREMENTS. COSTS ASSOCIATED WITH RELATED ACTIVITIES IN TANZANIA SHOULD BE TAKEN INTO ACCOUNT. ECONOMIC ANALYSIS SHOULD PROVIDE REASONABLE BASIS FOR ASSUMPTION THAT REDUCTION IN TRANSPORTATION COSTS WILL HAVE A WIDESPREAD IMPACT ON DEVELOPMENT AND GROWTH.

-- K. PROCUREMENT AND CONTRACTING GUIDELINES - PER PRINCIPLES ESTABLISHED IN STATE 74107 ON REGIONAL MANPOWER MANAGEMENT PROJECT (MADREC), THE APPROPRIATE AUTHORIZED GEOGRAPHIC CODE FOR THE NORTHERN CORRIDOR PROJECT WOULD BE CODE 941 FOR FOREIGN EXCHANGE COSTS AND ANY BENEFICIARY SADCC COUNTRY FOR LOCAL COSTS. HOST COUNTRY CONTACTING IS CONSIDERED APPROPRIATE IN VIEW OF MALAWI'S FAVORABLE PAST RECORD IN MANAGING AID-FUNDED CONSTRUCTION CONTRACTS.

-- L. 611(E) CERTIFICATION - THE MISSION IS REMINDED OF THE NEED FOR AA/AFR CONCURRENCE IN THE DIRECTOR'S 611(E) CERTIFICATION, WHICH IS NOT INCLUDED IN THE DOA. THIS CAN BE ACCOMPLISHED BY AN EXCHANGE OF CABLES.

M. IEE - APPROVAL OF INITIAL ENVIRONMENTAL EXAMINATION WILL FOLLOW BY SEPTEL.

2. SARP, AND IN THE CASE OF THE NORTHERN CORRIDOR ACTIVITY, USAID/MALAWI, SHOULD TAKE ACCOUNT OF ABOVE COMMENTS DURING PREPARATION OF PPS. UNDER NORMAL DOA 140 PROCEDURES, DIRECTOR OF USAID/ZIMBABWE, IN CAPACITY AS DIRECTOR OF SARP, MAY AUTHORIZE THESE TWO PROJECTS WITH REDSO CONCURRENCE WHEN DESIGN IS COMPLETED, WITH THE GRANT AGREEMENT FOR NORTHERN CORRIDOR EXECUTED WITH THE GOVERNMENT OF MALAWI. HOWEVER, IN THIS INSTANCE, IN VIEW OF OUR DESIRE TO HAVE THESE TWO ACTIVITIES AUTHORIZED BY JUNE 30 IF AT ALL POSSIBLE, WE BELIEVE

THAT MISSION APPROVAL WITHOUT FORMAL REDSO CONCURRENCE IS WARRANTED. THIS EXCEPTION IS BASED ON THE MISSION'S FULL CAPACITY TO REVIEW AND APPROVE THE PROJECTS AND THE EXTENSIVE REDSO INVOLVEMENT IN THE ECONOMIC ANALYSIS AND ENVIRONMENTAL ASSESSMENT FOR THE NORTHERN CORRIDOR AND THE PARTICIPATION OF AN AID/W PROJECT OFFICER AND PERHAPS AN AID/W PORT ENGINEER ON THE PP TEAM.

3. AA/AFR HEREBY DELEGATES AUTHORITY TO THE DIRECTOR, USAID/ZIMBABWE, TO AUTHORIZE THE NORTHERN CORRIDOR PROJECT IN AN AMOUNT NOT TO EXCEED DOLS 11.5 MILLION AND THE REGIONAL TECHNICAL ASSISTANCE AND TRAINING PROJECT IN AN AMOUNT NOT TO EXCEED DOLS 1.5 MILLION. THESE AD HOC DELEGATIONS OF AUTHORITY SHALL BE EXERCISED ON ALL THE TERMS AND CONDITIONS OF DOA 140 EXCEPT FOR THE AMOUNT IN THE CASE OF THE NORTHERN CORRIDOR PROJECT AND THE REQUIREMENT FOR REDSO CONCURRENCE. SHULTZ
ET
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ANNEX C

day" response telexed to Tehran + AIDW

Telegrams: FINANCE, Lilongwe
Telephone: Lilongwe 731 311
Communications should be addressed to: The Secretary to the Treasury.

BY Baker Week 7 Feb 3

DATE OF ACTION

NAN

FILE 0724 Core File

In reply please quote No. 28/3/48/II/92

MINISTRY OF FINANCE
P.O. BOX 30049
LILONGWE
MALAWI

16th January, 1986

RECEIVED
22 JAN 1986
USAID/MALAWI

The USAID Representative,
P.O. Box 30455,
Capital City,
LILONGWE 3.

Dear Sir,

NORTH CORRIDOR ROUTE : MALAWI-TANZANIA
BILATERAL DISCUSSIONS

I am sure that you may have received a copy of the agreed minutes of bilateral discussions with Tanzania from 15th to 18th October, 1985 as submitted by our Ministry of Transport and Communications.

It is the purpose of this letter to formally request your consideration in funding the lake investment package of the project and the technical assistance to the Lake service.

I should be grateful to know whether the request meets with your approval.

Yours faithfully,

Alfred Maluwa
for SECRETARY TO THE TREASURY

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ANNEX D

FAA SECTION 611 (e) CERTIFICATION

As the officer serving as principal representative of the Agency for International Development in Malawi, having taken into account the maintenance and utilization of project capital assistance in Malawi previously financed by the United States, particularly the Chikwawa-Bangula Road, the Lilongwe-Mchinji Road, the Blantyre-Mwanza-Tete Road, the Science Laboratory and Library at the Polytechnic, Agricultural Research Facilities, the Bunda College Projects, the Lilongwe School of Health, the Rural Piped Water Supply Project and the performance of the Ministry of Agriculture and Natural Resources, Ministry of Transport and Communications, Ministry of Health, Ministry of Works and Supplies with regard to previous and on-going AID projects in Malawi, I hereby certify that in my judgement the Government of Malawi has the financial and human resource capabilities to effectively maintain and utilize the capital assistance to be carried out under this Project.

John F. Hicks
Mission Director
USAID/Malawi

SEE attached cable from Malawi: Lilongwe 2453 (6/30/86)

Date: 06/13/86

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LILONGWE 002453

(5) ACTION AID-3 ~~INFO~~ AMB/DCM R/F

LOC: 172 498
30 JUN 86 0851
CN: 23971
CHRG: AID
DIST: AID

OFFICIAL FILE

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TO AMEMBASSY HARARE IMMEDIATE 1360
BT
UNCLAS LILONGWE 02453

AIDAC

FOR GENE MORRIS

E.O. 12356: N/A
SUBJECT: NORTHERN CORRIDOR PROJECT

REF: TELEX NO: RDO:551 DATED JUNE 27, 1986

ANNEX D 611(E) CERTIFICATION SIGNED BY MISSION DIRECTOR
JUNE 27, 1986.
ADAMS
BT
#2453

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JUN 30 1986

FILE LILONGWE 002453

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RF	✓

DUE DATE 7-1-86

ACTION TAKEN

NAN

UNCLASSIFIED

ANNEX E

MEMORANDUM

TO: Scott Smith, Acting Director, USAID/Zimbabwe

FROM: Kathleen Hansen, REDSO/RLA KH

SUBJECT: Southern Africa Regional Transport Development; Malawi Northern Corridor Project (690-0237)

DATE: June 13, 1986

Background

The Malawi Northern Corridor Project is AID's contribution to a multi-donor program to improve and expand Malawi's access to the port of Dar es Salaam, Tanzania, using a combination of road, rail and lake transport. The multi-donor effort includes development of a Malawi Cargo Center at the port of Dar; improvement of road and rail connections and Lake Malawi port facilities; and providing equipment, fuel storage facilities and rail tank cars. AID will fund upgrading of the Lake Malawi port facilities at two locations and the lake fleet repair works; rehabilitation of a lake pontoon vessel; purchase of 22 tank rail cars; and purchase of various items of equipment used for cargo handling and port operations. Certain of the AID-funded equipment will be used in Tanzania and thus, a legal determination must be made as to whether the Project involves direct assistance to Tanzania (See State 177575). Direct assistance to Tanzania is currently prohibited by Section 518 of the FY 1986 Appropriations Act (the "Brooke Amendment") and by Section 620(q) of the Foreign Assistance Act.

The equipment that will be located and used in Tanzania is as follows:

1. Two gantry cranes for movement of Malawi cargo at Tanzania transshipment points;

2. Fourteen hand pallet wagons located at Malawi cargo Center at the port of Dar es Salaam;

3. Four mobile foam generators (fire fighting equipment) located at Malawi Cargo Center/Dar and Mbeya; and

4. Twenty-two rail tank cars for use on the TAZARA rail lines in Tanzania.

The funds for this Project are from the Southern Africa Regional Program but will be obligated through a bilateral agreement with the Government of Malawi (GOM). All of the equipment listed above is moveable property; will be owned by the GOM; and will be used exclusively for cargo destined to, or originating from, Malawi.

The "Benefits" Test

The AID General Counsel's office has traditionally applied what is called the "Benefits" test * to determine if proposed regional assistance might provide direct assistance to a country to which it is currently prohibited by law, such as Tanzania. The benefits test contains four criteria for determining whether proposed regional assistance is tantamount to direct bilateral aid:

1. Are the benefits reaching the prohibited country primarily intended for that country's benefit?

2. Are the benefits reaching the prohibited country relatively minor?

3. Would withholding of the benefits to the prohibited country not seriously impair operationally effective assistance to the other beneficiary country or countries?

4. Are the benefits not supported by a regional organization?

Discussion

In the proposed Project, it is clear that there are no benefits primarily intended for Tanzania. The Project's aim is to benefit Malawi by improving its access to an Indian Ocean port and, for various political and geographic reasons, the port of Dar es Salaam is the most advantageous for Malawi.

Concerning the second criterion above, the benefits reaching the Government of Tanzania from the Project will be very minor in comparison to the benefits to malawi. Tanzania may benefit somewhat by an increased traffic level at the port of Dar and thereby increased revenue for the Tanzania Port Authority, as well as by increased traffic levels and revenues on the TAZARA railway (which is partly owned by a Tanzanian parastatal organization). For example, it is projected that traffic along the northern corridor may increase three percent per annum. These benefits are, however, secondary and not of great magnitude compared to the enormous savings to Malawi in shipping costs. At the time of PID preparation, it was forecasted that the savings in transport costs for Malawi by its enhanced ability to use the port of Dar instead of the

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* Another legal test, the "Conduit" test, is also applied where the assistance is provided through a multi-national or regional entity, rather than through a bilateral grant to a government.

longer and more costly route to Durban, South Africa* would be approximately Malawi Kwacha 20.6 million (approximately $11.4 million) by 1990.

In addition, Tanzania will receive no direct, substantial benefit from the fact that some pieces of GOM-owned equipment will be located in Tanzania because all such equipment, including rail cars, will be used only for handling Malawi traffic as it moves through Tanzania. Moreover,all equipment is moveable and therefore, no permanent improvements or facilities in Tanzania will be financed by AID. The direct beneficiaries are clearly the shippers and receivers of freight in Malawi.

Under the third criterion of the Benefits test, it is obvious that effective assistance to Malawi for northern corridor access to port facilities is not possible without some minor ancillary benefits to Tanzania and that to insist that no indirect benefits be conferred on Tanzania would effectively nullify the Project.

Finally, the Project and its benefits are supported by a regional organization. The Project has been approved by the Southern Africa Transportation and Communications Commission (SATCC), a body of the Southern Africa Development Coordination Conference (SADCC).

Conclusion

It is my legal opinion that the proposed project does not involve prohibited direct assistance to Tanzania.

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* Since 1984 the shorter railway routes to ports in Mozambique have been effectively closed.

ANNEX F

WAIVER FOR CODE 935 PROCUREMENT

FROM: Project Review Committee

TO: Mission Director, USAID/Zimbabwe

PROBLEM: Your approval of a source and origin waiver from AID Geographic Code 941 (Selected Free World) and Malawi to Code 935 (Special Free World) is requested for the purchase of fuel pumping equipment valued at approximately $101,000.

A.	Cooperating Country	: Malawi
B.	Authorizing Document	: Project Agreement
C.	Project	: Malawi Northern Corridor Subproject No. 690-0237
D.	Nature of Funding	: Grant
E.	Description of Goods	: Fuel pumping equipment and auxiliary flow meter, gas separator, valves and fittings
F.	Approximate value	: $101,000
G.	Probable Source	: Malawi, RSA, or Western Europe
H.	Probable Origin	: Western Europe

DISCUSSION: One vital component of the Malawi Northern Corridor Subproject provides for port improvement at the Chilumba site by installing truck-tanker fueling facilities adjacent to an existing port station. This component will include construction of separate diesel and petrol fueling platforms, complete with a pumping station. The present facilities are not adequate to handle the increased traffic expected to be generated by the Northern Corridor revitalization effort.

AID has assumed financing responsibilities to construct this pumping station as a part of AID's contribution to other multidonor group efforts in this area. However, AID financing for this particular subproject is restricted to AID Geographic Code 941 countries and Malawi. Essentially, with the exception of the procurement of pumping station equipment, this restriction poses no problems for the Ministry of Works and Supply to execute construction.

The difficulty arises in that the technical specifications for the station's pumping equipment will have designed motor ratings compatible with the 220/240 volt, 50 hertz cycle standards of Malawi. Similar equipment, like that manufactured in the United States for different voltage and cycle requirements, would not be appropriate in Malawi. Furthermore, the Ministry indicates that there are currently no known local distributors of U.S. or other Code 941 fuel pumping equipment in Malawi. The Ministry, therefore, is legitimately concerned that if a U.S. or other Code 941 supplier were selected to provide such equipment, even if appropriate motor ratings were

furnished, that management would be unable to properly service and maintain equipment not commonly found in Malawi.

Currently there are at least two reputable firms in Malawi who represent West European fuel pump manufacturers and have the capability to repair and service their products on a regular or emergency basis. Likewise, the Ministry wishes to maintain a certain degree of standardization within public works, and for this reason the Ministry is also opposed to purchasing equipment brands which are different from those already in use. In summary, procuring equipment which is represented in Malawi will allow for more rapid replacement of malfunctioning parts and equipment in an emergency, and would also permit economics in that the inventory of spares need not be as large as if several different brands were in use. Hence, the authority to procure from outside an authorized source and origin area is requested.

JUSTIFICATION: According to Handbook One, Supplement B, Chapter 5, Section B4(a), the authorized source/origin (in this case A.I.D. Geographic Code 941 and Malawi) may be waived when the commodity is not available from countries or areas included in the authorized Geographic Code. Effectively, this is the case with the required pumping equipment inasmuch as no U.S.-made or other Code 941 equipment is represented in Malawi which could reasonably be maintained in-country.

Under Delegation of Authority 140, Revised, you have the authority to issue source/origin waivers amounting to up to one million dollars per transaction. Appropriate legal and technical clearances have been obtained and your approval of this waiver will be given by your signing of the Project Authorization.

RECOMMENDATION: That, for the reasons above, you waive the eligible source and origin for these commodities in favor of procurement from a Code 935 source, and that you certify that exclusion of procurement from Free World countries other than the cooperating country and countries included in Code 941 would seriously impede attainment of U.S. Foreign Policy objectives and objectives of the Foreign Assistance Program.

TECHNICAL ANALYSIS

1. Background: Malawi is a long narrow country with a land area of 94,300 square kilometers and a lake area of 24,200 square kilometers. Economic development is heavily concentrated in the southern part of the country with development in the north only occuring since 1970. Agriculture contributes over 90% of Malawi's exports.

The road network is concentrated principally in the south but with a spine link to the north. The railway lies entirely in the south with the lake transport serving mainly as a north-south link. The railway until recent years carried export-import traffic to Nacala and Beira, Mozambique ports. Because of closure of these rail lines in Mozambique in 1984 and 1985, Malawi's external trade moved on different routes to Durban, RSA.

The macro economic condition of Malawi deteriorated through the high transportation cost of import-export goods through Durban, and its effect on the foreign exchange outlay. The World Bank in a study recommended the Malawi Northern Transport Corridor alternative, coordinated donor participation and assisted the Government in preparing a project financial package.

2. The Northern Transport Corridor project consists of the following:

A. Improvement of roads

i. Construction of a 2 lane, bitumen paved road between Karonga (Malawi) and Ibanda (Tanzania) 54.6 Km.

ii. Rehabilitation of selected segments of the Ibanda-Uyola road in Tanzania 94 Km.

iii. Rehabilitation of the bitumen paved Salima-Balaka road in Malawi 145 Km.

B. Construction and equipping of transshipment facilities in Tanzania:

i. Malawi Cargo Center (MCC) near the port of Dar-es-Salaam for the handling and storage of dry cargo.

ii. Malazwi Cargo Center at Mbeya, Tanzania

iii. Fuel storage facilities for petroleum products in the port of Dar-es-Salaam.

iv. Fuel storage facilities at Mbeya.

C. Procurement of 22 railway tank waggons for the TZARA rail line

D. Improvements in facilities of lake service on Lake Malawi including:

i. Procurement of a self propelled pontoon vessel suitable for container and fuel export-import traffic.

ii. Improvements to an existing pontoon vessel for the same purpose.

iii. Construction of cargo storage facilities and procurement of port/truck handling equipment for Chilumba port. Fuel facilities added.

iv. Ditto but port/rail at Chipoka.

v. Improvement of ship maintenance facilities at Monkey Bay including construction of a repair jetty, two new repair workshops with equipment.

3. Project Preparation and Costing

Karonga-Ibanda road. Detailed engineering by EDF. Construction by EDF. Committed.

Ibanda-Uyole road. Detailed engineering by EDF. Construction by Netherlands. Committed.

Salima-Balaka road. Detailed engineering World Bank. Construction by KfW (German AID) and World Bank. World Bank funded. KfW committed.

Detailed design and construction supervision of transshipment points, procurement, lake improvements funded by World Bank.

Generally work in Malawi (Lake) will be by USAID. Generally work in Tanzania by ODA. To be committed in September, 1986.

Procurement of equipment by USAID, ODA and EEC World Bank with individual items by a single donor for purposes of standardization, spares and maintenance.

4. Cost Estimates

Cost estimates by line item are shown in Cost Estimates and Financial Plan and refer to the total project, all components of which are essential to the operation of the corridor.

USAID associated preliminary costs, in conjunction with ODA, World Bank and EEC which were used to associate items with particular donors, are shown below.

Preliminary Costs: AID ALLOWED TO HAVE MALAWI OWNED EQUIPMENT IN TANZANIA

Item in $000 Malawi	USAID	ODA	IDA	EEC
1. Chipoka Road	-	-	-	-
2. Monkey Bay Civil Works	586	-	-	-
3. Monkey Bay Buildings	828	-	-	-
4. Viphya Pontoon Modifications	222	-	-	-
5. New Pontoon Vessel	-	-	2517	-
6. Monkey Bay Jetty	911	-	-	-
7. Chipoka Fuel	327	-	-	-
8. Chipoka Dry Goods Facilities	193	-	-	-
9. Chipoka Crane Foundations	206	-	-	-
10. Chipoka Workshop	63	-	-	-
11. Chilumba Fuel	547	-	-	-
12. Chilumba Dry Goods Facilities	502	-	-	-
13. Chilumba Crane Foundations	181	-	-	-
14. Chilumba Harbor Works	161	-	-	-
15. Chilumba Workshop	69	-	-	-
16. Monkey Bay Equipment	-	860	-	-
17. Gantry Crane Chipoka and Chilumba	1464	-	-	-
18. Forklifts Chipoka and Chilumba	291	-	-	-
19. Hand Pallet Trucks Chipoka and Chilumba	9	-	-	-
20. Fire Fighting Equipment Chipoka & Chilumba	55	-	-	-
21. Wooden Pallets Chipoka and Chilumba	70	-	-	-
22. Workshop Tools Chipoka and Chilumba	-	82	-	-
Item in $000, Tanzania				
51. Dar Fuel	-	-	-	3613
52. Dar Dry Goods	-	3302	-	-
53. Dar Rail Works	-	117	-	-
54. Dar Crane Foundations	-	363	-	-
55. Dar Workshop	-	204	-	-
56. Dar Water Supply	-	47	-	-
57. Mbeya Fuel	-	-	-	1870
58. Mbeya Dry Goods	-	3624	-	-
59. Mbeya Rail Works	-	314	-	-
60. Mbeya Crane Foundations	-	194	-	-
61. Mbeya Workshop	-	93	-	-
62. Gantry Cranes Dar and Mbeya	1340	-	-	-
63. Forklifts Dar and Mbeya	-	755	-	-
64. Hand Pallet Trucks Dar and Mbeya	52	-	-	-
65. Fire Fighting Equipment Dar & Mbeya	111	-	-	-
66. Truck Trailers Dar and Mbeya	-	1407	-	-
67. Rail Wagons TAZARA	963	-	-	-
68. Workshop Tools Dar and Mbeya	-	162	-	-
69. Tanktainers 32 TAZARA	400			
	9551	11413	2517	5483
Fuel Facilities Savings with BP Offer (or ODA)				3080
	9551	11413	2517	2403

It should be noted that the above preliminary costs associated with AID, which included contigencies, have been reviewed separately by the PP team and revised to reflect, June 1986 costs, implementation schedule, contingencies, local and foreign escalation. These cost estimates are now shown in the Budget for the AID financied project. ODA, World Bank and EDF costs are left unreviewed. June 1986 costs were taken from GITEC back up cost data prepared for preliminary plans.

It should be noted that in the Malawi Lake Shipping Component, USAID has all the major subcomponents with the exception of the new pontoon vessel and equipment for the Monkey Bay repair facilities. These exceptions are better and more economically procured outside US Code 941 due to existing Lake vessels, tools and equipment being British and German.

In Tanzania, USAID has procurement costs of mobile equipment vested in the Government of Malawi, which can generally be more economically supplied from Zimbabwe (source and origin). It should be noted that single source procurement of equipment especially from the Developing World gives cheaper prices, standardizes equipment, minimizes the number of spare parts and gives speedy maintenance and repair. Gantry cranes will be a good example of this particular method, and because of this are a rapidly expanding item in the Southern Africa region. Breakdown of gantries are infrequent due to heavy duty machinery and simplistic operation.

5. Construction Contracts

Contracts will be both numerous and relatively small in cost. As such they are readily adaptable to the FAR method of reimbursement which can be readily done in Malawi due to excellent contract document and technical specifications normally prepared by the MOWS of the GOM. Malawi contractors also have the capability and capacity to do the required work.

A. Viphya Pontoon Modification. This contract to strengthen an existing pontoon vessel can be readily done by Malawi Railway forces supplemented if necessary by key private enterprise
Personnel. Time schedule 5 months. June to July 1987

B. Monkey Bay Civil and Building Works. This involves earthworkand paving, minor demolition, a new machine shop, a new workshop building, a new gate office building, a new passenger waiting room. (New equipment and tools will be supplied by ODA).
Time schedule 18 months. February 1987 to August 1988.

C. Chipoka Fuel, dry goods facilities, workshop. This involves 2 new above ground storage fuel tanks, associated piping, concrete overflow container walls; concrete storage areas, workshop, paved road to the fuel facilities plus crane foundations and concrete pavement. Time Schedule 15 months. April 1987 to June 1988.

D. Chilumba Fuel, dry goods facilities, workshop. This involves a paved access road, a concrete paved storage area, earthwork, fencing, pump station; demolition; storage shed enlargement, workshop, pipeline canal. Work includes gantry crane foundations plus dock walling. Time schedule 18 months. May 1987 to November 1988.

6. Procurement Items

A. Gantry Cranes. These contain two portal frame type for use in Tanzania transshipment points and two overhang types to be used in Chilumba and Chipoka ports. These cranes will probably be manufactured in Zimbabwe, shipped to ports of destination and reassembled. Vesture will be in Government of Malawi and machinery will be standardized on all four gantries.

B. Forklifts. These are nine 3 ton machines (3 Chipoka, 6 Chilumba) and one 6 ton for Chilumba.

C. Hand Pallet Trucks. These are five 2.3 ton waggons required for Chipoka, fourteen for Dar and fifteen for Mbeya.

D. Fire fighting equipment. Mobile foam generators are required, two for Chilumba, two for Dar, two for Mbeya, one for Chipoka.

E. Wooden Pallets. These are 1.2 square meter size for Chipoka and Chilumba.

F. Rail Wagons. These are twenty two 45,000 liter tank wagons which will be manufactured in Zimbabwe

G. Tanktainers. These are thirty two 16,000 liter tanks for jet fuel.

H. Monkey Bay Jetty. This procurement is to supply a floating work pontoon approximately 40m X 17.5m x 1.8m which will give docking facilities for one vessel on each side and also connect to the existing floating dock. The floating pontoon will be connected to the land by a 5m ramp 30m long which will accomodate the variable height of the lake and a 5m X 30m bridge. The steel fabrication will probably be manufactured in Zimbabwe and assembled in Monkey Bay with the assistance of Malawi Railways personnel. Time schedule 9 months. March 87 to January 88

7. Maintenance, operation and assembly of equipment through Malawi Railroads.

Malawi railroads through their workshops at Monkey Bay Harbor assemble,repair, maintain lake vessels,major vessel assemblies,plant ,equipment.Vessel operations are also done through Monkey Bay. The project will supply Monkey Bay with a new floating work jetty, an equipped machine shop and workshop plus tools,parts and plant.Skilled workmen and equipment plus existing slipways will enable the new pontoon,the existing pontoon to be modified and the new jetty all to be assembled in Monkey Bay.Passenger traffic traffic will be separated from the harbor functions.

Chipoka Harbor has its own jetty sufficient for 2 ships docking at the same time,an existing storage warehouse,existing railway siding at the dock and existing fuel facilities.The project will maintain a gantry crane, additional fuel storage tanks, a small equipped workshop for first line repair and paved access to the port and fuel facilities.

Chilumba Harbor has its own narrow jetty for passengers, a small storage shed and fuel facilities. The project will provide a new berth, gantry crane and enlarge the storage shed. New concrete container storage will be provided along with a small equipped workshop, additional fuel storage and pumping shed. Truck parking and manouvring area will also be provided.

Lake operations include German and British cargo and passenger vessels operating throughout Lake Malawi and serviced at Monkey Bay.The project will improve lake operations through the provision of a new self propelled 600 ton self propelled pontoon vessel and modifying an existing 600 ton towed pontoon vessel for purposes of transporting containers and fuel. Existing vessels will carry passengers and break bulk.

8. FAR Contracts

FAR or Fixed Amount Reimbursement Contracts will be Host Country Contracts done with GOM British based Bills of Quantities type contracts prepared by Quantity Surveyors. Malawi has a proven history of contracts prepared in this manner by the Ministry of Works and Supplies for local contractors. Capability and capacity of contractors plus up to date costs for items are available at the Ministry of Works and Supplies (MOWS).

Contracts paid under FAR are relatively non complex contracts, small in cost, and mainly construction items in preference to procurement. AID payments relate to fixed line items of lump sum and/or unit price, which make up the majority of the cost. As local contracts will not include taxes, AID will estimate fixed unit prices for about one

hundred percent of the line item and contract. FAR's can pay advances and/or quantities of line items for monthly or interim payments but generally it is understood that FAR pays for completed products such as buildings etc. Uncompleted items require reimbursement of any interim payment. The system of Aid payments would be based on an initial advance followed by the preparation of estimated monthly costs for the next 3 months on each contract and the continuous updating each month. Actual payments will be based on estimated costs less disbursement until the FAR cost of each line item and the contract is met.

Contract included commodities can be bought from US Code 941 or shelf items. Shelf items (bought in Code 941 countries) are limited to $5000 per item or up to a total of 25 percent of total commodity costs. Shelf items are items in country but manufactured in US Code 935 countries. Shelf items over 25 percent would require waivers.

FAR applicable contracts are the Viphya pontoon modification where the FAR line item would be based on the completed vessel; Monkey Bay based on completed buildings by type, earthwork in lump sum, road paving in kilometers, demolition by lump sum, concrete work in lump sum; Chipoka Port on concrete work by lump sum, completed buildings by type, completed paving by lump sum, gantry crane foundations by lump sum; Chilumba Port on buildings by type, earthwork by lump sum, paving by lump sum, gantry crane foundations by lump sum, harbor wall by lump sum.

ECONOMIC ANALYSIS OF THE LAKE SERVICES SUB-PROJECT OF THE MALAWI NORTHERN TRANSPORT CORRIDOR (NTC) PROJECT

Malawi Northern Corridor Project (690-0237)
Southern Africa Regional Program
Harare, Zimbabwe

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Note: The material in this report including statistical data and calculations of economic return, benefits, and costs, was drawn from IBRD, Staff Appraisal Report: Malawi Northern Transport Corridor Project, January 1986, 62 pp. plus annexes, and IBRD, Malawi Economic Recovery: Resource and Policy Needs, An Economic Memorandum, October 1985, 124 pp., and presented in rearranged and edited form to highlight the concerns of AID in preparing a project paper for which the prefeasibility work and economic analysis has been conducted by consultants for IBRD as part of the larger NTC project. The final section on issues to be considered during AID's review of the project paper for the lake services component was written by the author. Revisions have been added to this document in order to update detail and tables to June 1986.

Background

While many developing countries, including Malawi, face deteriorating terms of trade, rising interest rates and declining demand for their products, Malawi has the additional burden of severe disruptions in transport to the sea. As a land-locked country, Malawi is dependent on neighboring countries for transport of between 650,000 to 800,000 tons of international traffic annually. Traditionally, 90 to 95 percent of goods have moved over two railway lines through Mozambique to the Indian Ocean ports of Beira and Nacala. The former has been the most important route, handling up to 70 percent of traffic, and has been the only port capable of handling bulk goods, such as fertilizer and sugar, and has Malawi's major storage facility for fuel as well. Nacala is mainly for container cargo with a small storage area for fuel. Since 1979, these lines have become unreliable, especially the Beira route, because of poor track maintenance, a shortage of wagons and locomotives, personnel and communications problems, and insurgent activities in Mozambique. The number of wagons using the Beira line daily declined from 35,000 in 1981 to zero in 1984.

Transport difficulties have been a burden on the balance of payments and the budget and resulted in shortages of critical goods. Freight and insurance charges rose from 16 percent of the value of imports in 1973 to 25 percent by 1979-80 and 40 percent in 1984. Revenues of Malawi Railways declined an average of seven percent annually since 1975. While the railway covered costs until the late 1970s, it has been a major financial drain on the GDM budget in recent years. By 1983-84, the monthly average of imports and exports moving through Mozambique was less than 40 percent of the 1977-81 level. In 1982, 65,000 tons of fertilizer were delivered to Beira for the 1982/83 crop season. During the year, only 15,000 tons moved on the railway line from Beira and 13,000 tons were shipped via Nacala. To meet fertilizer requirements, the GOM had to make additional purchases in South Africa and ship them by road to Malawi at a greatly increased cost. Not all of the fertilizer arrived in time and crop production suffered. The direct cost to the economy in 1984 of transport disruptions was at least $50 million, or 20 percent of the value of exports, excluding losses from decreased production or lost sales arising from shortages or late deliveries, the cost of large inventories because of uncertainties of shipments, the loss of confidence by buyers of Malawi's exports, and the reluctance of businesses to invest in an uncertain climate.

1. INCREASED TRANSPORT COSTS BECAUSE OF CLOSURE OF MOZAMBIQUE ROUTES

(Mk million)

Type	1982	1983	1984
Procurement of Replacement Supplies	1.8	4.9	n.a
Excess Transport Costs	5.9	26.4	n.a
Port Storage Charges	0.7	0.5	n.a
Interest on Tied-up Capital	2.2	1.1	n.a
Loss and Deterioration of Goods	1.3	0.9	n.a
Total	11.7	33.8	70.0(est.)

Source: IBRD, Economic Recovery: Resource and Policy Needs, An Economic Memorandum, October 1985, p. 59.

Since the end of 1984, the routes through Mozambique have been closed. Consequently, international cargo has been rerouted through various corridors to the south African port of Durban and the Tanzanian port of Dar es Salaam (Table 2).

2. DISTRIBUTION OF MALAWI TRAFFIC BY ROUTE

(Percent)

Country	Port	1981	1982/ 1984	Current	Ave. distance (km)	Ave. cost (MK/ton)
Mozambique	Beira	70	5	--	640	202
	Nacala	25	35	--	815	202
So. Africa	Durban	5	60	95	2,600 3,500	350. 700
Tanzania	Dar es Salaam	--	--	5	1,800	260
Total		100	100	100	--	--

Source: Ibid.

While least-cost considerations favor the northern route to Dar es Salaam over the southern route to Durban, the Dar es Salaam transit route is unreliable both in the physical state of the roads and the availability of organized facilities for handling and processing international cargo on the various segments of the corridor. As a result, most of the diverted traffic used the Durban route through Zambia and Zimbabwe which, despite high costs, is well organized and reliable.

The GOM has attempted to deal with the transport crisis in a number of ways. While alternative transport routes have been established, these are much longer, much more expensive, involve the crossing of several international frontiers, require transshipment between different modes of transport, and face insurgent activities. For example, the cost of importing a ton of fertilizer through Beira or Nacala was about MK37, while the cost on the operating alternative routes is between MK127 and MK319. For sugar exporting, the cost was only MK 35.6 per ton through Beira and MK 46.9 through Nacala, while alternative routes cost MK201 to MK333, well above the MK25-50 per ton needed to make exports profitable at today's sugar prices. Malawi has adjusted shipping patterns well, using the most economical routes for the various commodities, but cannot cut costs further through better routing.

A number of institutional changes have been made to deal with the transport crisis. The GOM established an emergency task force, along with an 11-member National Transport Committee with representatives from GOM and the private sector with a secretariat in the Ministry of Trade and Communications. An international transport brokerage/coordination company (MITCO) has also been formed. These have increased the flow of information on current transit routes, helped to coordinate shipments, increased the shipments of imports and exports using the same vehicles, and tried help develop road haulage capacity.

The GOM will continue to coordinate the traffic flows so as to minimize the transport costs incurred by commodity movements and to ensure that commodities sensitive to transport costs, e.g., fertilizer and sugar, are given priority on the shortest route available. The Ministry of Transport and Communication is monitoring traffic movements. The National Transportation Committee is providing a forum for periodic exchange of views and resolutions of problems between the public and private sector related to international cargo flows. In the medium term, GOM is working to develop new access routes to the sea, especially a Northern route by road or lake to the northern border, and then by road into Tanzania where it could connect to the TAZARA railways or the TANZAM highway. GOM is also working to develop international road haulage capacity. Twenty-five new tractor-trailers were added in 1985 and 20 more will be in service by the end of 1986.

Complete dependence on the southern route for exports and imports after the practical closure of the Mozambique corridor places Malawi in a vulnerable position. The transport would be severed if for any reason access to South Africa is closed. Since Tanzania has a deep sea port in Dar es Salaam, it is logical for Malawi to develop an alternative corridor for international goods traffic through Dar es Salaam. Apart from providing an additional option, the use of the northern corridor should reduce transport costs since the distance is approximately 42% less than the southern corridor. The northern corridor, in a rudimentary form, has been opened since August 1984, with the opening of the two Bailey bridges crossing the rivers to Tanzania and a temporary gravel road from Karonga to Ibanda, but its full potential cannot be realized without improvements, infrastructural as well as institutional. For the long term, repair work on the Beira and Nacala lines and ports are needed and has already begun, but given continued insurgent activity, date of completion is uncertain.

Assistance to GOM in solving transport problems is predicated on two assumptions: (1) security on the Beira line and other parts of Mozambique, or when physical and management improvements can be made is impossible to predict; and (2) assistance should meet requirements over the next five to seven years without excessive investment in systems or facilities which may become redundant when security in Mozambique is restored. The ports of Beira and Nacala are the most economic outlets and have the capacity to handle import-export traffic volume for the next five years. Investment in transport facilities for an alternative route also provide for domestic transport.

Overview of the Northern Transport Corridor Project

Goal. The overall goal of the multidonor NTC project is to increase the capacity of the northern route to about 45% of Malawi's external traffic and reduce transport costs compared with southern routes through Zambia, Zimbabwe, and the Republic of South Africa. Operation of NTC also will increase Malawi's bargaining leverage in obtaining lower transport charges on the southern route and will improve transport links among several countries and facilitate increased regional trade and industry. In particular, the route will expedite trade between Tanzania and Malawi.

Specific objectives. The specific objectives of the project are:

1. Improvement of roads including:

   a. construction of a two-lane, bituminous road between Karonga in Malawi and Ibanda in Tanzania (54.6 km);

b. rehabilitation of selected segments of the Ibanda-Uyole road in Tanzania (94 km);

c. rehabilitation of the bituminous Salima-Balaka road (145 km); and

2. construction and equipping transshipment facilities in Tanzania including:

a. the Malawi Cargo Center (MCC), near the port of Dar es Salaam, for handling and temporary storage of dry cargo;

b. an MCC at the Mbeya railway station for handling and temporary storage of dry cargo;

c. fuel storage facilities for petroleum products in the port of Dar es Salaam; and

d. fuel storage and handling facilities for petroleum products at the Mbeya railway station; and

3. procurement of rail tank wagons for operation on TAZARA;

4. improvement of Lake Service facilities on Lake Malawi including:

a. procurement of a self-propelled pontoon vessel suitable for transport of export/import traffic (containerized and liquid fuel) and modification of an existing towed pontoon.

b. construction of dry cargo storage facilties in Chipoka port and procurement of cargo handling equipment for the port;

c. construction of dry cargo storage facilities in Chilumba port and procurement of cargo handling equipment for the port;

d. improving ship maintenance facilities at Monkey Bay including construction of a machine shop, work shop, pontoon jetty and provision of equipment;

5. technical assistance for:

a. Lake Service cargo operations;

b. operations of cargo centers;

c. project and traffic coordination by MTC;

d. supervision of road improvements; and

e. supervision of #2, #3, and #4, including procurement of equipment.

Road construction and rehabilitation component. The Karonga-Ibanda road, which was built quickly in 1984 as a high-priority link to the TANZAM corridor, will be upgraded from a narrow, emergency gravel standard to a two-lane bituminous standard, including construction of two large bridges over the Songwe and Kiwira rivers now spanned by Bailey bridges.

Selected segments of the Ibanda-Uyole road will be rehabilitated. The existing road has some steep grades but the horizontal alignment is good. The asphalt surface is good except for 12 km between Moroto and Tukuyu which will be reconstructed along with other sections as required.

The Salima-Balaka asphalt road has deteriorated seriously and will be rehabilitated. Although it is not a major bottleneck it is the main route to the lakeshore road which is the preferred road for NTC traffic, and also connects the port of Chipoka with the major city of Blantyre.

Malawi cargo centers component. An MCC is to be established as a bonded dry port outside the port of Dar es Salaam to avoid operational problems within the port, such as delays, high storage charges and losses and damage to Malawi cargo. A site with excellent rail access is available less than a kilometer from the southern side of the port. An under-utilized TAZARA goods shed on the site would provide 2,200 square meters of covered storage for break-bulk cargo. An open area will be designed to hold 600 containers. Project improvements include concrete surfacing of 19,480 square meters, installation of lighting, construction of a security wall, construction of a 400-meter port access road and 850 meters of railway track in the storage area. New equipment includes 23 tractor trailors to move cargo between dockside and the MCC, 14 3-ton fork lifts, and a 30-ton gantry crane for handling containers.

Another cargo center will be constructed at Mbeya near the TAZARA rail station. Rail and road access works are necessary. A 2,200 square meter shed will be constructed with a workshop. A 12,900 square meter area will be surfaced, about half of which will be for container storage/handling. New equipment will include 15 3-ton forklifts, 15 hand pallet trucks and a gantry crane.

Separate fuel storage and handling facilities for petroleum products are required throughout the corridor because Tanzania is using different technical standards for petrol and diesel. Existing jet fuel and illuminating paraffin storage facilities only in Dar es Salaam can be used. Therefore, a dedicated 15,500-ton storage facility for petrol and diesel must be constructed.

No fuel handling capacity exists in Mbeya. Storage for up to 1,800 cubic meters is required with equipment and access for unloading from tank cars and reloading on road tankers.

Railway tank wagons. A fleet of 22 tank wagons, owned by GOM of 45,000 liters, will be added to the TAZARA fleet to assure that tank wagons are available for Malawi fuel. These, together with 32 tanktainers of 16,000 liters capicity for jet fuel, will be sufficient to handle the anticipated volume of petroleum products.

Lake Service component. Improvements to the facilities and operations of Lake Service are discussed in later sections.

Project costs. The total estimated cost of the NTC project including an allowance for contingencies, is MK 151.0 million, equivalent to $83.9 million (Table 3). Physical contingencies have been estimated at 10% of costs of items with detailed engineering and 15% for other items. The inflation contingency throughout the six-year implementation of the project has been estimated at 27% of the cost of all items. The project assumes that domestic inflation will be offset by adjustments of the exchange rate. The foreign exchange component is MK 123.7 million, equivalent to $68.7 million, 81.9% of total project costs. Taxes and duties are MK 8.8 million ($4.9 million) making the total cost of the project, net of taxes, MK 142.2 million ($79.0 million).

Financing. Joint financing is planned by the GOM and six external donors, the largest being the EDF which is expected to provide a grant of $23.4 million. All donor financing is grant except the IDA credit of $15.4 million. GOM financing is limited to 10% of the IDA component, net of taxes, and the tax portion of all components.

3. NTC FINANCING PLAN

Item	Total Cost	IDA	EDF	Kfw	ODA	AID	Holland	GOM
Road Construction:								
Karonga-Ibanda	22.77		21.40					1.37
Ibanda-Uyole	6.88						6.88	
Salima-Jct.M18	11.29			10.05				1.24
Jct.M18-Balaka	14.62	11.71						2.91
Subtotal	55.56	11.71	21.40	10.05			6.88	5.52
Malawi Cargo Center:								
Dar Dry Cargo	2.53				2.53			
Mbeya Dry Cargo	1.22				1.22			
Sutotal	3.75				3.75			
Fuel Handling:								
Dar Fuel Storage	4.34				4.34			
Mbeya Fuel Handling	2.14				2.14			
Subtotal	6.48				6.48			
Railway Tank Wagons	0.83				0.83			
Lake Facilities:								
Vessels	2.97					2.97		0.08
Chipoka Port	1.58					1.50		0.05
Chilumba Port	2.74					2.69		0.03
Fuel Handling	0.77					0.74		0.16
Monkey Bay Maint	1.64					1.48		0.16
Subtotal	9.70					9.38		0.32
Border Post and Weigh Bridge	0.72		0.67					0.05
Consultant Services:								
Tech Asst-Lake	0.99	0.85						0.14
Tech Asst-MCC	0.99	0.85						0.14
Tech Asst-MTC	0.34	0.29						0.05
Supervision:	4.53	1.74	1.35	0.62			0.41	0.41
Subtotal	6.65	3.73	1.35	0.62			0.41	0.74
Total	83.89	15.44	23.42	10.67	11.06	9.38	7.29	6.63

Source: Ibid., p. 28 (revised AID)

Traffic Projection

Project benefits of the lake service sub-project include savings in transport costs from more extensive use of lake relative to road transport. The addition of a cargo vessel, various port improvements and maintenance facilities, along with appropriate technical assistance, are expected to increase lake cargo substantially . Benefits from these investments are the difference in transport cost between lake service, including transshipment, and road transport, the only alternative surface transport available. Differences in transit time between lake and road transport are small because of the great length of the road route.

Although current export/import traffic on the corridor is small, substantial growth is anticipated (Table 4). An important assumption is that the Mozambique rail routes to Beira and Nacala will remain closed until 1988 and, thereafter, the routes will be gradually improved, permitting Malawi traffic by 1993 to flow at a rate equal to half the potential route capacity and remain at that level in subsequent years. The rationale for this traffic limit after 1993 is that there may well be continued guerilla interference with the operation of the lines and, in any case, the poor condition of the facilities would probably restrict the operating capacity of both lines since rehabilitation would be costly and time consuming. Consideration is also given to the effect of variations in the reopening assumption on future levels of NTC traffic. Traffic volume in 1985/86 was about 27,000 tons.

External trade is forecast to reach 932,000 tons in 1990 and the pattern of origins and destinations is expected to remain the same as in 1983. In the case of tea exports, 67% was destined for overseas, 31% for South Africa, and 2% for regional markets, while 94% of the tea originated in the south of Malawi and 6% in the Mzuzu area. In the case of fertilizer imports, 50% originated in RSA and 50% overseas, while 36% was destined for southern Malawi, 19% for the Kasungu area, and the balance for other locations. The traffic was assigned among various routes taking into account comparative cost of transport on the routes. A factor in traffic assignment was the time required to building up capacity and operational expertise on the northern corridor and develop shipper confidence.

An estimate of NTC traffic in 1995 is given in Table 5. 141,000 tons of overseas exports and 215,000 tons of overseas imports, for a total of 356,000 tons, are expected to move on the corridor in 1995 plus 64,000 tons of bi-lateral/regional trade (of which 49,000 tons are exports). About 42% of the traffic is break-bulk, some 43% is containerized, and the remainder is bulk fuel. The forecast is less than 75% of the maximum potential traffic implied by the cost differential between the southern route and

NTC. This reduction is made due to risk considerations that would effect routing decisions.

4. RECENT LAKE SERVICE COMMODITY MOVEMENTS

(Tons)

Commodity	1983/84	1984/85	1985/86 1/
Cement	1960	1574	2996
Fertilizer	7427	8351	2756
Maize	5798	8231	830
Rice	1752	1364	519
Sugar	50	985	140
Fuel	9253	4837	9170
Others	2978	7875	3548
Total	29209	33217	25201

1/ Provisional
Source: IBRD, Staff Appraisal Report, January 1986, Annex 2, Table 5.

The revised NC traffic forecast for 1995 is summarized in table 5

5. Projected NC Traffic Volumes (000 tpy).
(crossing the border)

EXPORT				
Break Bulk			54	
Thereof	Sugar	29		
	Maize	20		
	Other	5		
Containerized			87	
Thereof	Sugar	16		
	Cotton	5		
	Tea	25		
	Tobacco	36		
	Other	5		
Bilateral/Regional, breakbulk			49	
IMPORT				
Bulk Fuels			65	
Break Bulk			58	
Thereof	Fertilizer	48		
	Other	10		
Containerized			87	(92)
Thereof	Fertilizer	47		
	Jet/Paraffin	(5)		
	Other	40		
Bilateral/Regional, breakbulk			15	
Total NC Traffic			415	(420)

Source: Revised Report on Dry Cargo Facilities Layout, GITEC, April 1986

5a. PROJECTED NTC TRAFFIC (Half-Open Scenario)

(tons)

Cargo	1990	1995	2000
Exports			
Tobacco	30	26	29
Tea	15	15	15
Others	66	77	91
Subtotal	111	118	135
Imports			
Fuel	43	47	52
Fertilizer	57	63	70
Others	44	48	55
Subtotal	144	158	177
Total	255	276	312

Source: Ibid., GITEC, Transport System Study of the Blantyre Dar es Salaam Corridor, July 1985.

If the Mozambique routes open during the LOP, NTC traffic would be less than the base forecast, which is used as design criteria. It is unlikely that these routes would operate at an efficient level initially and a 'half-open' scenario has been developed whereby they carry about half their normal traffic. The NTC then carries regional/bilateral trade, the trade of the northern region of Malawi, but loses about half of other projected traffic. See Table 5.a. If the Mozambique routes reopen fully before 1989 and remain open, then the NTC traffic would be only 62% of the half-open forecast.

Between Dar es Salaam and Mbeya, where railways and road transport are available, all traffic will be transported more cheaply on TAZARA than on the TANZAM Highway. Between Chilumba and Chipoka, traffic will move at lower cost by lake than by road but since traffic origins and destinations are widely dispersed within Malawi only a fraction of total NTC traffic will be transported by LS. Accordingly, the potential NTC traffic on the lake is about 70,000 tons in 1995 or 105,000 tons under the half-open scenario. Relatively high proportions of NTC fuel traffic and NTC container traffic are expected to be transported on the lake while lower proportions of break-bulk will be shipped by this mode.
Traffic projections on lake Malawi with the project and without the project, and incremental cargo attributable to the project are shown in Table 6. These projections are based on the half-open scenario, and take account of NTC traffic that can already be carried by the lake without the project.

6. PROJECTED CARGO TRAFFIC ON LAKE MALAWI (000 tons)

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Ave. grow (%
With Project:													
Breakbulk	29	33	35	37	41	62	64	65	67	69	70	72	8.6
Container	-	12	14	17	17	53	55	56	58	60	61	63	18.0
Fuel	5	8	8	8	8	31	31	31	31	31	31	31	18.0
Total	34	53	57	62	66	146	149	152	159	160	162	166	15.5
W/O Project:													
Breakbulk	29	33	35	37	39	37	38	39	40	42	43	44	3.9
Container	-	12	14	17	17	17	17	17	17	17	17	17	3.5
Fuel	5	8	8	8	8	15	15	15	15	15	15	15	10.5
Total	34	53	57	62	64	69	70	71	72	74	75	76	7.6
Increase	-	-	-	-	2	77	79	81	87	86	87	90	-

Source: IBRD, Staff Appraisal Report, January 1986, p. 39.

Without the project, breakbulk cargo, which consists largely of fertilizers and agricultural produce, is expected to grow 7.6% annually from 1985 to 1988. This growth largely reflects increasing use of LS in preference to more expensive road hauliers. With full implementation of the NTC project components in Northern Malawi and Tanzania in 1989, fertilizer shipments on the lake are forecast to decline substantially since most points in the North of Malawi can be more economically served by road with fertilizer imported through Tanzania. However, it is expected that, even without additional investments in the ports, LS will attract NTC breakbulk traffic because of its cost advantage over road transport.

Container transport on LS is cheaper per-ton-km than road transport, transhipment costs being included in both cases. Since LS introduced a scheduled container service, the shipper's perception of the reliability of the service offered by LS has increased markedly. Hence, even without the project some container traffic is expected to use the lake. However, the amount of such traffic would be severely limited by lack of container handling equipment and storage facilities at the ports and, in the longer term, by inadequate vessel capacity. Currently, the lake ports do not have adequate facilities to effeciently handle more than 20,000 tons of containerized traffic while the effective capacity of the container vessel is 30,000 tons annually.

All fuel movements on the lake are from the southern lake port of Chipoka to the two main northern lake ports of Chilumba and Nkhata Bay. Fuel movements on the lake were relatively depressed in 1984 at about 5,000 tons because of severe fuel shortages in Malawi. Volume recovered to about 8,000 tons in 1985 and, thereafter, stays constant to 1988. With completion of the NTC fuel handling facilities in Tanzania in 1988, it is anticipated that fuel for areas now served from the two northern lake ports will be supplied by road from Mbeya. This will free the LS's only dedicated fuel carrier for transport of fuel imported through Tanzania and destined for southern Malawi. Although the existing container vessel also has fuel carrying capability it is unlikely to be utilized for fuel transport since it will be needed for container traffic.

Passenger traffic has grown 4% annually over the last decade. Growth has been partly determined by available passenger vessel capacity. Passenger capacity was increased by the commissioning of a new vessel in 1981. However, to reduce the working losses of the passenger services this increase subsequently has been offset, in part, by reductions in the number of voyages undertaken by the oldest and least efficient vessel in the fleet. Passenger traffic is assumed to remain constant through the projection period.

A third traffic scenario was also developed for the project. This assumes Mozambique recovers fully and is able to offer all the capacity on the Nacala and Beira lines that Malawi requires. In this case the development of NTC facilities still creates traffic, which is bi-lateral and regional trade plus the overseas trade of the Northern Region. Total traffic here falls to 205,000 tons in 1995 of which 75% is break bulk cargo. NTC traffic on the lake falls to only 30,000 tons, however as domestic traffic on the lake is reduced (with Northern Regions international trade using the NTC), net additional traffic on the lake is very small. This scenario defines minimum possible traffic flows, and is considered rather unlikely to occur within the medium term future. Viability and financial analysis is based on the half-open scenario. This is considered a cautious approach with a good possibility of much better results. Sensitivity analysis is carried out on the assumption that the Mozambique fully open scenario may develop after a number of years.

Financial Analysis

Financial performance of Lake Service. Lake Service (LS) is a department of Malawi Railways (MR) which operates largely as an independent unit. A senior MR manager is responsible for railway and LS operations. The accounting functions of MR and LS are performed by a single division. Some costs are jointly incurred but most costs are identified with services provided by LS.

LS is a statutory monopoly for lake passenger and freight services which operates eight revenue-earning vessels. Three vessels carry dry cargo, one carries only fuel while a pontoon carries only containers, the remaining 3 are predominantly passenger carriers operated on a schedule. GOM owns the ports and LS pays no fees for the use of the ports but is responsible for maintenance.

LS also operates a central repair, maintenance and stores facility, primarily to service its own vessels and equipment. In addition, it performs repair work for a fee, especially vessel assembly and refitting for the Malawian army and police.

Separate financial accounts are not maintained by LS. The management accounting system is sound, adequately structured for purposes of both cost accumulation and budgetary control, and divided into 48 activities. Each vessel and port is an activity center and the repair facility is subdivided into a number of additional centers according to the nature of the work. Activity centers focus responsibility for budgetary control. In practice, budgetary control is directed by senior management and the feedback of information to activity managers is not very timely or formalized.

Recent operating and financial data show that performance has been poor. (Table 7). Operating losses occurred after adjustment for depreciation, in 4 of the last 6 years. Net operating income overstates real income because depreciation charges are based on historic rather than replacement costs and are attributable largely to only two vessels, both recently acquired. The rest of the revenue-earning fleet has been fully depreciated.

Cargo services have been reasonably profitable in most years but passenger service has been unprofitable. LS operates a widely dispersed scheduled passenger service between 26 ports on the lake. Services between many ports are subject to competition from bus services, thus placing a ceiling on the lake passenger tariffs. Given this external constraint on pricing, and the high fixed costs inherent in the operation of a scheduled service, the vessels have incurred substantial

working deficits. Operation of a passenger service is not financially justified.

Cargo service depends wholly on domestic traffic and in particular on the transport of agricultural produce from north to south and movement of fertilizer and fuel in the other direction. Although the volume of cargo carried has been low in recent years, the service has been profitable. Greater profits could have been realized if there had been selected tariff increases. Unbalanced port-to-port cargo patterns have tended to hold utilization rates to about 45% of capacity of cargo carriers.

7. LAKE SERVICE FINANCIAL PERFORMANCE

Item	1979	1980	1981	1982 /83	1983 /84	1984 /85	1985 /86
Volume of Traffic							
Cargo Service:							
Tonnage (000)	35.4	31.2	29.4	40.3	39.2	33.2	25.0
Net ton/kms (000)	12434	10691	9695	13807	9142	12144	7859
Passenger Service:							
Passenger (000)	104.9	105.1	132.7	182.0	191.2	187.9	203.0
Passenger km (000)	16801	16155	18334	23105	23197	21289	23491
Finance MK (000)							
Revenues:							
Cargo	1216	1351	1159	1824	1236	1482	1118
Passenger/parcels	229	221	312	495	489	484	632
Others	172	351	344	452	772	836	
Total	1617	1923	1815	2871	2494	2639	2762
Working expenses	1291	1713	2009	2914	2819	2834	3605
Working income	326	210	(194)	(43)	(325)	(195)	NA
Depreciation	(37)	(37)	(207)	(255)	(243)	(312)	NA
Operating Income	289	173	(13)	(298)	(568)	(508)	(387)

Source: IBRD, Staff Appraisal Report, January 1986, Annex 2, Table 1. with 1984/85 update and 1985/86 provisionals from Malawi Railways Statistics.

Tariff structure. Third class passengers provide 85% of total passenger-kilometers. The rate for this class is determined by rates for competitive bus service. This rate was increased 12% in April 1985, and now is about 2.2 tambalas per passenger-km, compared to 2.5 tambalas per passenger-km on the bus service. In general, bus service is faster than lake transport.

Tariffs for cargo service have five rates for transport of 14 commodities and 3 rates for port handling of three commodities. Tariffs are low compared with road transport rates. Rates for agricultural produce and fertilizer inputs, which comprise over 60% of goods carried, are 7.8 tambalas per ton-km, compared to 16.5 tambalas per ton-km on bitumen roads, and 21.6 tambalas per ton-km on gravel and earth roads charged by ADMARC, the parastatal agricultural marketing agency for road transport. These rates assume that the loading/unloading costs in road transport are separately borne by shippers. Rates for general cargo vary from 8.6 tambalas to 11.0 tambalas per ton-km compared to a minimum of 10.6 tambalas/ton-km and a minimum of 30.5 tambalas/ton-km for road transport.

While large losses are incurred by passenger service, tariff increases are not competitively feasible as they would only cause further losses. The financial problems of the service are structural and require other remedies.

The appropriate level and structure of cargo tariffs should be determined by two principal considerations: (1) the appropriate rate of return on capital employed; and (2) competitive constraints.

Return on net fixed assets. IBRD assumes that 5% is an appropriate real return on capital employed which is equivalent to net fixed assets since net working capital is probably negative. For the cargo service, estimates of returns on net replacement cost of fixed assets indicate that they have ranged from negative to about 3% in recent years. Low rates of return are attributable to: (1) low cargo volume relative to capacity--reflected in few voyages per vessel annually; (2) unbalanced cargo movement patterns and consequent low capacity utilization rates per voyage; and (3) relatively low tariffs.

IBRD assessed the impact of the above factors using the traffic projection for FY 86 with the following returns on fixed assets.

Assumptions	Return on net fixed assets (%)
1. Base case: Current tariffs, historic per voyage utilization rates, base years, total traffic - 54,300 tons	1.0
2. 10% increase in per voyage capacity utilization	1.3
3. 10% increase on base cargo volumes	1.8
4. 10% increase in tariffs	2.3
5. Maximum feasible voyages, historic per voyage utilization, and implied cargo volume	7.9

This calculation indicates that to improve the financial performance of cargo service, emphasis should be placed on improving capacity utilization. IBRD concludes the existing differential between road tariffs and lake tariffs for dry cargo is reasonable in view of the transhipment involved with lake transport.

Notwithstanding the erosion in profit margins, the existing cargo tariff structure does not require significant upward adjustment. In the medium term, at least, emphasis needs to be placed on marketing the cargo service and improving vessel assignment practices.

Strategy

To improve financial performance IBRD recommends: (1) phased reduction in passenger service since elimination of lake passenger service may not be politically feasible. A phased reduction of the service, however, is in the interest of reducing working losses. This would include selective reductions in the length of voyages and the number of voyages undertaken each year; and (2) increased marketing effort and tariff increases on cargo services. A balance is needed between tariff increases and the marketing effort to attract greater and more balanced traffic. Traffic increases are

constrained by the likely impact on competitiveness with road transport. MR is recruiting a traffic analyst to assist in marketing activities and a more detailed analysis of the competitiveness of trariffs.

Competitiveness. For container and fuel traffic, lake transport has a clear cost advantage compared with road transport (Table 8):

8. LAKE VERSUS ROAD TRANSPORT TARIFFS (1983 tariffs)

(Tambalas/ton km)

Type	Lake	Road	Difference
Break-bulk	8-11	11-30	3-19
Containers	7	18	11
Fuel	9	30	21

Source: Ibid., MR Transport Performance Bulletin, 1983

Goods for transport between the northern port of Chilumba and various points in southern and central Malawi can be moved either by lake transport to and from Chipoka, and often further transshipped on road or railway, or road transport, combined in some cases with rail transport in central and southern areas. The choice of route rests largely on comparative transport cost. The cost advantage of lake transport is shown in Table 9. Projected financial performance and cash flow are given in Tables 10 and 11. It can be seen that financial results of the lake service are satisfactory.

9. COMPARISON OF TRANSPORT COSTS BY LAKE AND ROAD

(MK per ton)

Route	Lake Transport	Alternative Road Transport	Saving
Chilumba-Chipoka:			
Dry Cargo	42	87	45
Fuel	42	151	109

Source: Ibid., GITEC "Transport System Study of the Blantyre-Dar es Salaam Corridor," July 1985.

Constraints. A number of constraints limit LS's ability to capture a substantial share of traffic despite this cost advantage. These limitations can be: (1) internal constraints such as existing physical capacity, financial resources, technical skills and managerial capabilities limiting the ability to expand services; and (2) external constraints affecting the attractiveness of the overall transport system.. A key internal constraint is the size of existing vessel capacity.

Type	Tons/Year	Assumptions
Break bulk (3 vessels)	75,000	6 days/voyage; 100% per voyage capacity utilization
Containers (1 vessel)	46,000	4 days/voyage; 100% per voyage capacity utilization
Fuel (1 vessel)	22,000	4 days/voyage; 50% per voyage capacity utilization

10. PROJECTED FINANCIAL PERFORMANCE

(1985 MK000)

Item	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Tonnage:											
Breakbulk	33400	34730	37121	40574	62159	63703	65304	66965	68689	70478	72335
Containers	12000	14400	17280	17280	53040	54631	56270	57958	59697	61488	63333
Fuel	8000	8000	8000	8000	30980	30980	30980	30980	30980	30980	30980
Total	53400	57130	62401	65854	146179	149314	152554	155903	159366	162946	166648
Pass./ kms(000)	21291	21291	21291	21291	21291	21291	21291	21291	21291	21291	21291
Revenues:											
Breakbulk	1189	1235	1310	1413	2532	2596	2663	2732	2804	2878	2954
Containers	510	612	734	734	2254	2322	2391	2463	2537	2613	2692
Fuel	310	310	310	310	1380	1380	1380	1380	1380	1380	1380
Passengers	516	516	516	516	516	516	516	516	516	516	516
Other	256	263	274	289	457	467	477	487	498	509	521
Total	2761	2936	3145	3263	7140	7282	7428	7578	7735	7896	8063
Working expenses:											
Fuel	1914	1927	1956	1965	2591	2604	2599	2612	2601	2615	2613
Personnel	386	386	386	386	436	436	436	436	436	436	436
Technical	387	387	387	892	892	432	432	432	432	432	432
Other	271	277	282	288	339	346	352	359	366	373	381
Total	2958	2977	3011	3531	4259	3818	3819	3839	3835	3856	3862
Working profit:	-176	-40	134	-268	2981	3464	3609	3739	3900	4040	4201
Depreciation	342	342	342	576	949	949	809	809	809	809	809
Operating income	-518	-382	-209	-844	2032	2615	2800	2930	3091	3231	3392
Interest	0	0	0	441	1365	1365	1365	1365	1321	1185	1046
Net income	-518	-382	-209	-1285	667	1250	1435	1565	1770	2046	2346
Working ratio	106	101	96	108	60	52	51	51	50	49	48

Source: Ibid. Table 3.

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11. PROJECTED CASH FLOW

(1985 MK000)

Item	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Sources											
Operations:											
Operating income	-518	-382	-209	-844	2032	2615	1800	1931	3091	3232	3392
Depreciation	342	342	342	576	849	849	809	809	809	809	809
Subtotal	-176	-40	133	-268	2881	3464	3609	3740	3900	4041	4201
Finance:											
Long term debt(project)	0	0	3671	7705	0	0	0	0	0	0	0
Total	-176	-40	3804	7437	2881	3464	3609	3740	3900	4041	4201
Applications											
Investment in fixed assets	0	0	3166	7200	0	0	0	0	0	0	0
Long term debt service:											
Interest	0	0	0	441	1365	1365	1365	1365	1321	1185	1048
Repayments	0	0	0	0	0	0	0	0	367	1138	1138
Subtotal	0	0	0	441	1365	1365	1365	1365	1688	2323	2186
Cash Transfers to MRailways	-140	-49	627	-167	1290	2054	2236	2367	2203	1710	2006
Increase in working cap.	-36	9	12	-37	226	44	8	8	9	8	9
Total	-176	-40	3804	7437	2881	3464	3609	3740	3900	4041	4201
Total/Debt Service	--	--	--	16.86	2.11	2.54	2.64	2.74	2.31	1.74	1.92

Source: IBRD, Ibid., Table 4.

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LS can handle up to 35,000 tons of break-bulk traffic given current domestic cargo services, the likely growth of cargo traffic, and the likely pattern of cargo flows. LS's container service is wholly geared to NTC container traffic. Existing fuel transport patterns on the lake will change as the GOM shifts procurement of fuel to new sources. With such a change, fuel for points in Malawi now served from NKhata Bay, about 6,000 tons, probably will be best supplied by road tankers from Mbeya, leaving the existing fuel-carrying vessel for translake fuel transport.

MR does not have the financial resources to support new services which, although viable in the long term, entail significant financial support in the initial years as the market is developed.

LS does not have the technical skills and managerial capacity, or access to such expertise from MR to operate a new, diversified cargo service in addition to its existing domestic operations. This constraint is particularly significant for break-bulk traffic where it will have to operate both tramp and scheduled service.

Given these limitations, IBRD recommends that LS concentrate on developing: (1) a fuel transport service for which traffic will be assured once the NTC is fully operational; and (2) a container service, requiring only small initial financial exposure and utilizing capabilities already gained in recent experience; (3) improving transport security and efficiency of operations.

Lake transport constitutes only 30% of the entire NTC route between southern Malawi and Dar es Salaam. The attractiveness of NTC as a whole determines the volume of traffic on NTC and, thus, will influence the volume of traffic on the lake. Effective operations on other segments of the NTC route will determine to a large extent the volume of lake traffic. In terms of transport costs, use of the rail/lake/road/TAZARA route is cheaper than the road/TAZARA operation and cheaper than the all-road option. However, both the rail/lake/road/TAZARA and road/TAZARA routes are less reliable than the all-road route because: (1) TAZARA does not serve well traffic originating in or destined for points in Tanzania; (2) interchanges are not accomplished efficiently; and (3) adequate shuttle service is not available on the road link between the lake and TAZARA. The Lake Service is dependent on other transport agencies and has a key interest in overcoming bottlenecks to operations between Chilumba and Dar es Salaam.

Lake Service Improvements

A new 600-ton pontoon vessel will be procured to carry the type of export/import cargo expected. The new ship would be capable of handling break bulk, container, bulk coal, and fuel. Because of limited volumes of each type of cargo, however, some compromise in design is required. For the commodity mix and traffic levels projected, various types of vessels were considered and the technical details of the 600-ton vessel determined as most suitable are given in Table 11. Final specifications will be determined by a detailed study.

12. TECHNICAL SPECIFICATIONS OF NEW CARGO VESSEL

Specification	Pontoon
Payload (ton)	600.0
Number of TEU (2 high)	48.0
Length (m)	53.0
Width (M)	12.0
Weight (M)	2.7
Draft, Laden (m)	1.6
Engine (KW)	250.0
Speed (km)	7.7
Fuel consumption (l/h)	50.0
Cargo type:	
Fuel	Yes
Containers	Yes
Break Bulk	Limited
Bulk (other than fuel)	No

Cargo on the lake will be transported mainly between the northern port of Chilumba and the southern port of Chipoka. The capacity of Chipoka port will be expanded to accommodate the anticipated traffic. For containers, a 3,500 sqm concrete stacking and handling area will be constructed on a total paved area of 6,900 sqm. Five forklifts (3-tons each) and a gantry crane will be supplied. An access road of 2,500 m and a 1,100 sqm storage shed will be constructed. Fuel storage will be doubled to 1,350 m3.

The port of Chilumba will require additional cargo handling equipment and expanded storage capacity. Specifically, the port will be equiped with a gantry crane, plus 6 forklifts (3 tons each) and one 6-ton capacity. An area of 7,000 sqm will be surfaced and a storage shed of 864 sq.m. will be constructed. Minor changes in the fuel handling system also will be introduced, but with no additions to existing storage capacity. A breakwater and some dredging is also required..

Improvements are required in the ship repair facilities at Monkey Bay to service vessels and shorten the annual overhaul periods. A new floating jetty will be built to allow two vessels to berth on either side while also providing direct access to the floating dock. In addition, machine shop and workshop will be provided and equiped

The LS management needs to be strengthened in marketing, positioning and scheduling of vessels, port operations and maintenance, and vessel repair. It also requires technical assistance to operate the additional vessel. Therefore, the project includes a substantial technical assistance component under IDA funding.

Economic benefits and costs. Assuming unit cost savings indicated in table 9 and the half-open scenario for traffic projections, benefits substantially exceeed costs, including replacement investments in 1995 and 2002 for cargo handling equipment and workshop tools, the economic life of which is estimated at 7 years. The ERR is 32.1%.

13. BENEFITS AND COSTS OF IMPROVING LAKE FACILITIES

(MK million)

Year	Capital costs	Savings of lake transport vs. road transport	Net benefits
1987	13.3		-13.3
1988	4.8	3.0	-1.8
1989		6.3	6.3
1990		6.0	6.0
1991		6.0	6.0
1992		6.2	6.2
1993		6.4	6.4
1994		6.5	6.5
1995	2.0	6.7	4.7
1996		6.7	6.7
1997		7.0	7.0
1998		7.0	7.0
1999		7.1	7.1
2000		7.4	7.4
2001		7.5	7.5
2002	2.0	7.6	5.6
2003		7.7	7.7
2004		7.8	7.8
2005		7.9	7.9
2006		8.0	8.0
2007		8.1	8.1

Source: Revisions by MOTC/USAID based on GITEC revised cost estimates.

14. Benefits and Costs Related to Northern Corridor Project
(MK million)

Year	Capital costs	Benefits to diverted traffic	Balaka-Salima *	Savings lake vs road	Net Benefits
1987	62.3				-62.3
1988	41.4	8.0	2.3	3.0	-28.1
1989	1.4	18.9	4.0	6.3	27.8
1990		20.6	4.6	6.0	31.2
1991		21.0	4.8	6.0	31.8
1992		21.3	5.0	6.2	32.5
1993		21.7	5.2	6.4	33.3
1994		22.1	5.5	6.5	34.0
1995	4.6	22.5	5.7	6.7	30.3
1996		23.0	4.9	6.7	35.6
1997		23.5	6.3	7.0	36.8
1998		24.0	6.6	7.0	37.6
1999		24.5	6.9	7.1	38.7
2000		25.5	7.2	7.4	40.4
2001		26.0	7.5	7.5	41.0
2002	4.6	27.0	7.9	7.6	37.8
2003		28.0	8.2	7.7	43.7
2004		29.0	8.0	7.8	45.4
2005		30.0	9.0	7.9	47.5
2006		31.0	9.4	8.0	49.0
2007		31.0	9.6	8.1	49.5

ERR is 35%

* Primarily savings in vehicle operating cost on normal traffic.

Note: Inflation contingency of 27% has been added to June, 1985 prices

Benefits Impact

The principal beneficiaries of the project will be the consumers and producers in the Northern Region. Because of the Northern Regions' relatively higher inaccessibility to the presently used international routings, or even to the traditional routes through Mozambique, this region will benefit substantially, whatever scenario is assumed.

Smallholder agriculture will benefit specifically through the ability to have fertilizer, imported from overseas, delivered more cheaply through the Northern Corridor than via Durban. Furthermore, in marketing surplus maize to food deficit countries such as Somalia, Ethiopia and Tanzania, Malawi will become increasingly competitive with the opening of the NC. This should mean higher earnings for ADMARC and an increase in its capacity to purchase maize for export.

The Dwangwa sugar estate should benefit substantially in improving the marketability of its production overseas. Transport costs from Dwangwa to Beira by existing routes are so high that even marginal production costs cannot be met. The Government has, morever, substantial foreign loans to repay for this estate and improvement in its net earnings is an urgent requirement.

Consumers in general will benefit from the lower cost of imports of a variety of manufactured goods in containers through the Northern Corridor. The economy as a whole will have greater security of supply of petroleum products, which is a strategically essential input to activity in all ecomonic sectors.

Risks and sensitivity analysis. Governments of Malawi and Tanzania have negotiated the legal framework and procedures essential to efficient operations on the NTC route. The only point of disagreement concerns procedures for direct delivery of Malawi transit traffic between the port at Dar es Salaam, operated by Tanzania Port Authority, and the MCC. Representatives of the two Governments have discussed these issues and recognize a mutual advantage in developing NTC for transit traffic of Malawi. Final negotiations will be completed in July, 1986. Development of the route is consistent with the objectives of the Southern Africa Development Coordination Conference (SADCC) of which both Malawi and Tanzania are members. The NTC Project was reviewed and approved by SADCC in January 1986.

Another risk is the possibility that traditional routes through Mozambique will reopen at an early date, thus causing some of Malawi's traffic to shift again to these routes. However, reopening one or both of those lines in the foreseeable future seems unlikely. Even if insurgency is resolved in the next few years, deterioration of the rail lines is such that several years would be required to restore satisfactory operations.

The sensitivity of the economic return to variations in the estimated costs and benefits indicate that even if the Mozambique routes were to reopen fully as early as 1988, the ERR, for the project as a whole, would decrease only moderately from 35% to 27%. For lake transport facilities, ERRs are 32% and returns are acceptable even if costs rise or benefits are reduced substantially. The incremental financial rate of return from increased cash flow with the project is 32.1% (Table 13).

LS faces two major risks in undertaking this project. These are: (1) the project costs may be higher than estimated, and (2) NTC traffic on the lake may not materialize. In regard to the first risk, significant increases in project costs are unlikely since contingency allowances are adequate and the civil works components are relatively small in relation to total project costs. Nonetheless, sensitivity analyses assuming a 20% increase in project capital costs, show that the base financial rate of return declines from around 32.1% to 26.8%.

The risk that fuel traffic will fall short of the projected volume is small since: (1) the GOM has decided to import 50% of Malawi's requirements through Tanzania, assuming the fuel handling capabilities of the NTC are developed and the oil

companies agree to use the route; (2) LS tariffs for fuel transport are cheaper per ton-km than road transport; and (3) fuel handling facilities are already in place at the main lake ports.

Although the LS' tariffs for breakbulk and container movements are cheaper than road transport rates, there is the risk that shippers may prefer alternative routes to an extent greater than forecast or that the Malawian economy may not perform as well as assumed. However, it seems reasonable that choice of route will be determined largely by the comparative cost and reliability of service. Costs favor the NTC and the operation of the MCCs is designed to assure reliability of transport on the NTC. Transit time on the NTC should be less than on southern routes. The impact of traffic-related risks on the project's viability have been tested by sensitivity analyses (Table 15).

15. SENSITIVITY OF FINANCIAL RATE OF RETURN

Item	Percent
Base Case	32.1
10% Decrease/increase in Container Traffic	29.1 - 35.1
10% Decrease/increase in NTC BreakBulk Traffic	31.4 - 32.8
10% Increase in costs and 10% decrease in savings	26.5
20% Increase in costs	26.8

Sensitivity analyses indicates that the project is viable with substantial decreases in the projected NTC dry cargo traffic levels. This insensitivity to decline in traffic volume reflects that the LS's vessels have operating costs that are mainly fixed and tariff levels are sufficiently high to allow breakeven at low levels of capacity utilization. In the case of the proposed project container vessel, for example, the operating cashflow breakeven point, when carrying containers but no fuel, is only 18% of the annual container load capacity of 42,000 tons. However, since the costs are predominantly fuel, this project's viability is very sensitive to fuel price increases not matched by appropriate tariff increases or sufficient gains in traffic. Sensitivity analyses indicate that a 10% increase in fuel prices decreases the base cost financial rate of return from 32.1% to 26%. Declining fuel prices are likely to increase the rate of return but may not increase the competitiveness of lake transport.

Questions and Issues

Delay in implementation. The calculation of benefits and costs of the NTC project assumed that construction of the Koranga-Ibanda road would commence in July 1986, that contractors would have been selected by mid-1986 for other components of the project, and construction or equipment fabrication would commence during the last half of the year. Since project engineering design is still underway and IBRD is not likely to present the proposal to the Board of Directors for a few months yet, actual commencement of construction probably has been delayed to the beginning of 1987. If the underlying assumptions regarding prospects of reopening the Mozambique routes remain unchanged, the delay will not change the economic rates of return and the analysis of the GITEC report can be accepted as still valid. Delay in implementation probably will delay commencement of benefits from operation of the improved NTC system to mid-1988.

Underutilization of lake transport capacity. To date, lake transport facilities have been about 75% underutilized. Traffic is unlikely to grow rapidly until the completion of the Karonga-Ibanda road at the end of 1989. Thereafter, several months, if not a year or more, may be required before the facilities of the lake transport system are more-or-less fully utilized as tonnages shipped by NTC increase. If this is a reasonable scenario, the new investment in lake facilities will not begin to yield much benefits until 1990.

Managerial effectiveness. The NTC system will be a complicated operation, with many isolated and independent parts which are unable to communicate easily. Reading of the GITEC and IBRD appraisal reports, and practical experience in East Africa, lead one to question whether the organizational structure described in the reports is adequate for ironing out the operation difficulties which are certain to arise as the system approaches startup. The subservience of the Lake Service to Malawi Railways, for example, may cause conflicts. The technical experts may not have enough line authority and responsibility for coping effectively with problems, including adjustments in tariff rates. The key organizaitonal components of the NTC system are all public enterprises. Perhaps some of these operations could be privatized with consequent improvements in the effectiveness of the system. A key management policy should be full acceptance of open competition of all components of the NTC system with private truckers operating all the way from Dar es Salaam to southern Malawi.

Rail, road, and lake tariffs. IBRD is undertaking a study of the transport tariff structure. The status of the study should be determined and its recommendations reviewed when the report is available. The GITEC and the IBRD reports question whether the reliability and rate sturcture of lake service will be favorable enough to attract shippers to send freight via lake transport even though the marginal economic cost of lake shipment is well below the marginal cost of road transport. However, since the breakeven point of lake transport is only 18% of load capacity, Lake Service has plenty of latitude for lowering rates to attract freight. Evidence cited in the IBRD report indicates that improvements in roads in the past have diverted freight away from lake shipping. The reliability of lake shipping and competitiveness of the rate structure must be key concerns of the management of Lake Services and the NTC coordinator.

Private trucking capacity. There is no financing in the IBRD proposal for increasing the fleet of private trucks to operate on the NTC route even though the report indicates the fleet should be increased by at least 60 vehicles. Perhaps funding for this is provided under other projects, but AID should assure that private truckers have the foreign exchange necessary to offer a private shipping alternative to the public services envisioned under the NTC project. Private truckers elsewhere in Africa have been very effective in competing successfully with rail shipping because of their higher reliability, ready availability, and low marginal, backhaul rates. The availability of road transport capability may be the key to effective operation of the NTC if rail and lake shipping prove to have operating obstacles which result in low reliability and effectiveness, and, consequently, higher real economic costs than anticiapted.

Communication. For efficient operation of the NTC system, communication among the transport centers in Dar es Salaam, Mbeya, Uyole, Chilumba, Chipoka, and other points should be immediate by whatever means is most cost effective. The IBRD proposal doesn't appear to have included provision for a telecommunication system comparable to the size, cost, and significance of the NTC system. This should be discussed with the IBRD staff to determine whether sufficient attention has been given to a means of communication adequate to permit effective management.

ADMINISTRATIVE AND PROCUREMENT PROCEDURES

1. Overall Procurement Plan

The host country will be responsible for all contracting as described in detail below. Section A of this procurement plan contains guidelines for contracting for construction and civil works, using the FAR method of payment. It should be noted that a limited amount of commodities are to be financed within those activities and that the procurement guidelines contained in Section B of this procurement plan do not apply to those procurements. Section B address only discrete commodity procurement contracting to be done directly by the MOWS under host country contracting procedures and which form the major part of the commodity assistance provided by this project.

A. Contracting for Construction and Civil Works

The Ministry of Works and Supplies (MOWS) of the GOM will be responsible for all contracts for construction and civil works under their usual public tendering procedures. AID will make payment based on the fixed amount reimbursement method (FAR) for completed, scheduled elements of work. The Regional AID Engineer for Southern Africa has determined that accurate cost estimates will be available for each element, and that each is relatively non-complex and small in cost. The Regional Engineer reserves the right to review all contract drawings and documents for general compliance with AID requirements prior to solicitation. Both the Engineer and the Regional Legal Advisor (REDSO/ESA) have concluded that the FAR method is appropriate for the works involved.

The capability of the MOWS to handle the contracting is well known to AID and is certainly among the highest in the region. In the past three years AID has financed three construction contracts in Malawi, all through host country contracting by the MOWS and the results have been excellent. The personnel at the MOWS have proven to be highly capable in tendering and administering the contracts, and in properly coordinating with AID as necessary. The MOWS itself has clearly demonstrated adequate systems and procedures for effective contract support, accounting, and payment procedures. The AID REDSO Legal Advisor and Southern Africa Regional Engineer are available to assist the MOWS, as well as the project staff at USAID/Malawi.

Because Malawi is an RLDC and does not have sufficient current working capital to go forward with these contracts on its own, AID will make advances of funds to permit work to begin, based on MOWS estimates, of immediate cash needs for a ninety day period for each contract or project element. The advances will be replenished on a quarterly basis as needed, based on detailed estimates and all

advances will be settled with the final reimbursement for each completed element. Should any FAR element not be completed in accordance with AID-approved specifications, the GOM must refund any advances attributable to that element.

Imported shelf items, irrespective of their origin (i.e. from Code 899 countries such as the Republic of South Africa, Western Europe and Japan), required for construction and civil works can be bought from Malawi or from any other sub-Saharan Africa country. Total imported shelf item procurements are limited to 25% of the total commodity costs. Furthermore, the price of one shelf item unit may not exceed $5,000. Transactions involving shelf items which exceed $5,000 per unit or which are in excess of the total 25% cost limit would require individual geographic source waivers. This paragraph sets forth the guidelines for shelf item procurements by construction and civil works only. Guidance for direct MOWS procurement outside the FAR payment method is contained in section B of this Procurement Plan.

The following works will be reimbursed on the F.A.R. basis: Viphya pontoon modification based on the completed vessel; Monkey Bay ship maintenance facilities based on completed buildings by type, completed paving by kilometer, and gantry crane foundations by lump sum; Chilumba Port based on buildings by type, earth work by lump sum, paving by kilometer, gantry crane foundations by lump sum, Chipoka Port based on buildings by type, paving by kilometer, gantry crane foundations by lump sum, and fuel storage tanks and associated pipe work by lump sum.

B. Direct Commodity Procurement by the MOWS

1. Responsible Agency:

All direct commodity procurement under this project will be the responsibility of the MOWS. GITEC, a West German consulting firm under contract by the World Bank to assist the MOWS in implementation, is responsible for developing final comprehensive commodity lists, preparing detailed technical specifications, coordinating advertising activities, preparing solicitation documents which meet AID regulations, and supplying the MOWS with pre-award bid evaluations for all direct MOWS commodity procurements. GITEC and the MOWS will coordinate procurements with AID as appropriate.

Equipment and materials for this project will be financed and procured in two ways. This section of the procurement plan deals entirely with the major and discrete commodity contracting to be conducted by the MOWS using GITEC assistance as described above. The remaining portion of commodity contracting will done by the various construction and civil works contractors as outlined in section A above of this procurement plan, and as such, procurement for those commodities will be the responsibility of those selected contractors. However, it is the responsibility of the MOWS to insure that such contractors adhere to AID recommended procurement procedures and policy.

GITEC will develop comprehensive commodity lists and detailed technical specifications for commodities to be procured under construction and civil works contracts and by the MOWS directly under commodity contracts with suppliers. Annex G1 (Technical Analysis) contains a breakdown of the activities and general commodity requirements and cost estimates.

2. Source and Origin:

The source and origin for all goods and services financed by this project will be from countries or areas included in AID Geographic Code 941 (Selected Free World) and Malawi except as authorized under waivers or exempted as shelf items purchased under sanctioned local cost financing. A source and origin waiver to permit Code 935 procurement of pumping station equipment is attached as Annex F. No other procurement waivers are anticipated at this time.

Imported shelf items which are procured directly by the MOWS (as opposed to those described in section A under FAR financing regulations for construction and civil works contractors) can be bought from Malawi or from any other sub-Saharan Africa country. Shelf items located in one of the above countries which have their origin in countries included in Code 941 are eligible for financing in unlimited quantities. Shelf items of Code 899 origin (i.e., Republic of South Africa, Western Europe and Japan) are eligible if the price of one unit does not exceed $5,000. The total amount of imported shelf item purchases by the MOWS from code 899 may not exceed $25,000 or 10% of total local costs financed by AID under this project whichever is higher; however in no case may the total amount of such purchases exceed $250,000 without first obtaining a geographic source waiver. Transactions involving shelf items which exceed $5,000 per unit or which are in excess of the total cost limit would require individual geographic source waivers.

3. Applicable Regulations:

Commodity procurement by the MOWS directly from commodity suppliers will follow guidelines contained in AID Handbook 11, Chapter 3 regarding host country contracting methods for equipment and materials. Procedures to be followed will be set forth in a Project Implementation Letter. Chapter 3 guidelines do not apply to procurement by construction and civil works contractors described in Section A of this Procurement Plan when the cost of the commodities is to be funded by AID under the fixed amount reimbursement method. The requirements applicable to procurement by contractors will be included in the terms of the prime contracts, and additional guidance regarding commodity procurement by construction contractors can be found in AID Handbook 11, Chapter 2.

4. AID Approvals:

For all host country contracting activities AID approval is required of solicitation documents before issuance and of the final executed contract when the contract amount is estimated to exceed $100,000 or equivalent. USAID and the MOWS may agree that additional approvals are also appropriate depending upon the complexity of the procurement and value of the contract. The steps at which AID approval will be required will be set forth in a Project Implementation Letter. Since it is anticipated that a number of AID-financed procurements of equipment and materials will be conducted under this project, it will be recommended that the initial solicitation document involving direct commodity procurement by the MOWS and to be prepared by GITEC receive Regional Engineer, RCMO, RLA and RFMC review and approval. The RCMO can assist GITEC with the document format if necessary.

5. Contracting Method:

Contracts estimated to exceed $100,000 will be awarded on the basis of formal competitive bids; unless informal competitive procedures are otherwise approved by the Mission Director. This will include advertising the availability of invitations for Bids (IFBs) in the United States and other appropriate 941 countries (i.e., Zimbabwe and Zambia), issuance of the IFB by the MOWS, public opening of sealed bids by the Central Tender Board in Limbe, evaluation of the bids by GITEC with MOWS endorsement, and award of the contracts to the lowest, responsive and responsible bidder. The MOWS will withhold their letter of acceptance and award until the bid evaluation and contract has been reviewed and approved by AID. USAID/Malawi can request RCMO assistance for this review process if necessary.

Small value procurement procedures may be employed when the estimated value of a particular contract will not exceed $100,000. The contract may be awarded by soliciting quotations from a reasonable number of sources and awarded to the offeror with the most advantageous offer. However, commodities and incidental services which would normally be grouped together shall not be broken down into smaller procurements merely for the purposes of avoiding the requirements of formal competitive procedures.

6. Advertising:

United States suppliers are eligible under AID Geographic Code 941 designation to participate as candidates in procurements financed by this project, and must be informed of pending procurements through advertising. However, since most of the equipment and materials to be financed are produced either locally or in neighboring countries it is anticipated that U.S. suppliers will not reasonably be able to compete with other Code 941 firms. Therefore, the MOWS may wish to comply with advertising

requirements by annually issuing a blanket or consolidated advertisement in the United States Commerce Business Daily and the AID Bulletin once adequate information about commodity requirements (i.e., quantities, types and sizes) are identified. Procurements covered by a blanket advertisement do not normally have to be readvertised individually. However, to procure commodities which U.S. suppliers can be reasonably expected to supply (i.e., forklifts) an individual procurement notice should be published in the United States announcing the availability of the solicitation documents.

As stated above, any form of blanket advertisement which the MOWS should elect to use must be published by the AID Office of Small and Disadvantaged Business Utilization in the AID Bulletin (AEOFB) and in the Commerce Business Daily. Furthermore, all notices regarding the availability of invitations for bids for procurements estimated to exceed $25,000 which are not covered by a blanket advertisement must be published in the AID Bulletin. If the estimated value of the procurement is more than $100,000 and not covered by a blanket advertisement the notice of availability must also be published in the Commerce Business Daily. Notices should be submitted to the AID Office of Small and Disadvantaged Business Utilization at least 60 days in advance of the closing date in the solicitation document to allow time for prospective suppliers to obtain copies of the document.

GITEC will assist the MOWS to, in addition, advertise individual procurements in appropriate local and regional journals, newspapers, etc., as necessary.

7. Distribution of Solicitation Documents:

The MOWS will provide copies of solicitation documents to all firms requesting copies and to any other firms the MOWS wishes to solicit. Copies of solicitation documents can be made available to the Embassy of Malawi in Washington D.C. for distribution within the United States if desired. The MOWS' standard practice is to charge firms the equivalent of 50 Kwacha for copies of the solicitation document to cover the cost of reproduction and mailing.

8. Method of Payment:

For direct equipment and materials contracting with suppliers by the MOWS the method of payment will be by AID Direct Letters of Commitment (L/COMM) to the suppliers. This method has been selected because the MOWS does not have adequate financial resources to pay suppliers directly. Therefore, Direct Letters of Commitment will be used as agreements between AID and selected suppliers, under which AID will make payment directly to the suppliers for eligible commodities and services financed under host country contracts.

The steps in this method are:

a) Once a contract is awarded, the MOWS prepares a request for a L/COMM and submits it to USAID.

b) Based on the Project Agreement and Project Implementation Letters, the request for a L/COMM, and the host country contract with the supplier, USAID forwards these documents to RFMC requesting that the L/COMM be issued to the supplier.

c) The supplier presents the appropriate documents required for payment (RFMC will specify in the L/COMM what documents are required) to RFMC, and receives payment directly from RFMC.

9. Contract Administration:

The responsibility of MOWS will not cease when a contract is signed. The MOWS, working with Malawi Railways, will have full responsibility for ensuring that suppliers perform in accordance with the terms of the contract in order for the supplier to be paid

The MOWS and/or Malawi Railways will be responsible to monitor arrivals and to clear goods from Customs. The MOWS will be responsible for the inspection of arrivals and for the preparation of receiving reports. Inspections of incoming shipments must be made, and receiving documents must be annotated with comments on evident damages or losses. The MOWS will keep arrival and accounting records, and provide copies to the USAID Project Officer

Reports of damages/losses must be made promptly on all incoming cargo so that a claim or a "notice to file a claim" may be submitted to the carrier involved. Once the notice is filed, the carrier must await the filing and adjudication of the claim; this permits MOWS personnel to acquire more information and particulars about the claim.

The MOWS is responsible for the safe keeping and storage of all commodities. Commodities must be put into project use within one year of receipt; the USAID Project Officer will inspect project sites and review commodity utilization reports periodically.

10. Delivery:

All imported commodities will be shipped on the basis of CIF destination. Suppliers will be required to obtain all risk warehouse to warehouse marine insurance in the amount of 120% of the CIF cost of the commodities. Commodity contracts will specify the consignee and establish appropriate delivery points.

AID shipping requirements contained in AID Handbook 11, Chapter 3, will be observed. Contracts with suppliers of commodities which are shipped on ocean carriers must include appropriate language contained in AID Handbook 11, Chapter 3 regarding ocean

transportation regulations, and the MOWS must insure that U.S. Cargo Preference requirements which apply to all ocean shipments of AID-financed commodities are met.

11. Marking Requirements:

All commodities to be furnished under this project, and their shipping containers shall be marked with the official AID emblem, in color, in strict conformance with AID marking requirements. Suppliers shall be responsible for correctly marking goods and shipping containers. All contracts with suppliers for the procurement of equipment and materials must contain appropriate language regarding this requirement.

Emblems shall be affixed by metal plate, decal, stencil label, tag, or other means, depending on the type of commodity or the shipping container and the nature of the surface to be marked, but in all cases must be large enough to be clearly visible at a reasonable distance. For equipment and materials, emblems must be substantially as large, as durable, and as visible as the trademark, company or brand names affixed by the producer. Shipping containers must be marked with emblems which will be legible until they reach their destination. Such containers shall display the contract number characters equal in height to the shipper's marks.

GENERAL EQUIPMENT AND MATERIALS LIST

ACTIVITY/COMMODITY	CONTRACTOR	QUANTITY	PROBABLE SOURCE	TOTAL CIF COST
1. Monkey Bay Civil Works/construction commodities contained within a FAR contract	Civil Works and Construction Contractor under FAR financing		non-U.S. 941 and Malawi	N/A
2. Viphya pontoon modification/structural steel	Civil Works and Construction Contractor under FAR financing		non-U.S. 941 and Malawi	N/A
3. Chipoka fuel station and crane foundations/ fuel tanks and const. commodities contained within a FAR contract	Civil Works and Construction Contractor under FAR Financing		non-U.S. 941 and Malawi	N/A
4. Chilumba fuel station, crane foundations, harbor improvements, pumping equipment and const. commodities contained within a FAR contract	Civil Works and Construction Contractor under FAR Financing		non-U.S. 941, 935 (see waiver) and Malawi	N/A
5. Gantry Cranes	MOWS	4	Zimbabwe	2,906,000

6.	Forklifts - 3 Ton		9	U.S./S.Korea	198,000
	- 6 Ton	MOWS	1	U.S./S.Korea	65,000
7.	Pallet Wagons	MOWS	34	Zimbabwe	59,000
8.	Wooden Pallets	MOWS	2000	Malawi	13,000
9.	Foam generators for fire fighting	MOWS	7	U.S./Zimbabwe	186,000
10.	Tanktainers 16,000 Liter	MOWS	32	Zimbabwe	400,000
11.	Rail wagon Tanker 45,000 Liter	MOWS	22	Zimbabwe	847,000
12.	Floating Jetty	MOWS	1	Zimbabwe	677,000

ANNEX G4

US AID OFFICIAL RECORD

ACTION COPY

DO NOT REMOVE FROM BACKING SHEET UNTIL READY FOR FILE

UNCLASSIFIED STATE 204079

(5) ACTION AID-3 INFO AMB/DCM R/F

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DE RUEFC #4079 1782216
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RUEHSB/AMEMBASSY HARARE IMMEDIATE 0400
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OFFICIAL FILE

LOC: 172 188
28 JUN 86 1004
CN: 23913
CHRG: AID
DIST: AID

AIDAC NAIROBI FOR REDSO/ESA; HARARE FOR GENE MORRIS

E.O. 12356: N/A
TAGS:
SUBJECT: MALAWI DRAFT ENVIRONMENT ASSESSMENT FOR NORTHERN CORRIDOR TRANSPORT PROJECT (690-0237)

REF: LILONGWE 02384

1. EA APRROVED PROVIDED THAT ITEM B, SECTION 6 IS INCORPORATED IN PROJECT DESIGN.

2. WILL REQUEST EPM PROJECT STAFF TO CONTACT RESPONSIBLE PERSON IN GOM ENVIRONMENTAL SECRETARIAT REGARDING ITEM C, SECTION 6. WHITEHEAD
BT
#4079

NNNN

UNCLASSIFIED

DATE JUN 30 1986

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ANNEX G4

ENVIRONMENTAL ASSESSMENT

Prepared By

Dr. John J. Gaudet

Regional Environmental Advisor (REDSO/ESA)

(June 23, 1986)

I. INTRODUCTION

The project activities will be directed toward an improvement of shipping services on Lake Malawi. The activities of concern are:

1. Procurement (not financing) of a self-propelled pontoon vessel;

2. Construction of dry storage facilities and cargo handling equipment at both Chilumba and Chipoka Ports; and

3. Construction of the repair jetty and improvement of the maintenance facilities at Monkey Bay port.

II. ENVIRONMENT CONCERNED

Lake Malawi, the worlds ninth largest lake (30,000 square km), is relatively deep (758 meters, max.) and elongated (603 km X 87 km, max.), following a north-south alignment within the Shire Valley. It supports a major fisheries (50-80 (X000) tons annually) based on predominantly endemic species of genera such as: Oreochromis (Tilapia/chambo) Cyrtocara (Haplochromids/utaka), Barbus, Clarias, Lethrinops, Bagrus, Engralicypris and Labeo.

The general details of the lake's climate, geology etc. are given in the USAID 1982 Environmental Profile of Malawi (USAID/Malawi Library).

Because of the elongated, regular topography of the shoreline there are few natural harbors, Monkey Bay port being one of them. It is located in the Southern part of the lake just inside Point Mclear. The remaining two ports referred to here are at Chipoka and Chilumba, two small man-made facilities located along the western shore.

III. IMPACTS

1. Fuel Handling

Fuel loading and unloading principally takes place at Chilumba and Chipoka. The operation in both ports is a similar, straightforward process using flexible delivery hose secured to the pump with a screened end being lowered into the fuel bunker. The pumps concerned are either located onshore near the storage tanks (Chipoka), or at the jetty (Chilumba), or onboard the vessels concerned. In all cases the operation is tended by experienced staff and according to local fishermen and port workers there has never been any significant case of spillage. Increased port traffic will have little effect on this because the loading/unloading methods remain the limiting factor, and they will not change much in the foreseeable future.

Increased fuel transport, especially diesel, does present the risk that discharges could occur in the future from increased lake shipping. However bilge pumping is prohibited in port areas and the small quantities of oil involved in off-shore releases, along with the fact that this is refined oil rather than crude petroleum, would suggest that these impacts would not be significant on such a large body of water.

2. Pontoon Vessel

The self-propelled pontoon vessel will be procured for the Lake Service. Financing for this vessel will be provided by another element of the overall multidonor Northern Transport Corridor Project. It will be designed according to Lloyd's Register of Shipping and will comply with the minimum design for safe fuel transport. Specific design features for pollution protection are: (a) double hull to protect cargo in the event of collisions or grounding; (b) longitudinal bulkheads alongside the fuel oil tanks onboard; (c) two cofferdams with the fuel oil tanks between; and (d) distribution of the fuel oil into separate tanks (90 cubic meters each). An older pontoon will also be used, but its decks will be strengthened.

It should be pointed out that traffic, including the project pontoon vessels, generally avoid collisions by following an outside course on the lake. This ensures that jetties, rocks and other in-shore obstacles are given a wide berth. In addition, the obstacles are well-marked and the skippers are highly experienced.

3. Construction

The major construction activities will involve rehabilitation of existing structures, paving of container storage areas, and small buildings erected on existing sites. This will have minimal impact on the local environment. Pile driving will occur at Moneky Bay where a small number of pilings are needed to anchor the floating repair jetty. Other pilings will be needed at Chilumba and Chipoka for the gantry crane rail foundations, but these will be few in number. The staff of the Fisheries Research Unit and local fishermen feel that such pile driving and any

small revetments with limited back-fill as planned, will have no significant impact on their fishing. The major fishing effort for all boats, including canoes, is carried out off-shore in deeper water. Likewise, it is difficult to see how these limtied construction activities will seriously affect the lake fauna or flora.

The only major impact expected is that of the dredging which may be needed at Chipoka and Chilumba. Here the bottom on the eastern side of the jetties must be dredged to a depth at of least three meters. However, the total area involved is small and it has previously been subjected to dredging, so that other than a temporary disturbance in the water at dockside, no significant impact is expected.

The site of the borrow pits proposed for extraction of back fill was examined and found to be at porous sites which are free-draining, and are located well back from the main roads away from habitation. They are already being used to supply local needs.

4. General Biological and Human Concerns

A. Lake Flora and Fauna - The earlier studies on the lake biota are referred to in the USAID 1982 Environmental Profile. The lake biota is apparently very complex (300 species of fish, estimated) but is still in need of much study. According to the GOM Fisheries Research Unit, no fish species on the lake has yet been designated as endangered. One rare species is the river-spawner, mpasa, Opsoridium microlipis, which has been declared a protected species. The Nile crocodile has been listed by IUCN as an endangered species in Malawi, but neither the mpasa nor the crocodile are normally found at the project sites.

B. Sewage - Increased traffic will result in more people using the waiting rooms at Chilumba and Chipoka ports. Toilet facilities in these waiting rooms will have to be increased some time in the future. At Chipoka the sewage treatment plant capacity is more than adequate. However, at Chilumba, treatment is non-existent. Some form of cesspit, septic tank or soak area should be installed during the rehabilitation of this port.

C. Potable Water - In all port areas potable water was found in adequate supply. This does not seem to be a problem.

D. Long-Term Social Factors - The expected increase in cargo traffic will have direct effects such as an increase in passengers using the waiting room facilities on the docks, increased demands for onward transport (e.g., bus services), increased noise from truck traffic, increased number of trucks in the area, increased traffic on access roads which pass by the local town centers, etc., all of which must be the normal progressions expected from area development. Over the long-term, these impacts will have to be considered in future regional development plans.

IV. SUMMARY OF IMPACTS, MITIGATION MEASURES AND MONITORING

1. Most activities will have little or no significant impacts on the lake environment.

2. During rehabilitation, paving and general construction at Chilumba Port, an adequate septic tank/cesspit and/or soak zone should be provided for local sewage at the port. The Regional USAID Environmental Officer (REDSO/ESA) will review final construction plans to insure this concern is considered.

3. The GOM should be requested to review present legislation to insure that restrictions on transport of hazardous substances (especially pesticide concentrates, toxic chemicals, etc.) will apply to lake traffic and can be enforced. The REO will contact a centrally-funded (S&T) environmental project (EPM/IIED) to determine if consultative assistance on this topic can be provided.

V. ACTION REQUESTED

Mission Director would appreciate action on the above EA as soon as possible.

USAID NORTHERN CORRIDOR PROJECT ASSISTANT

General Duties and Responsibilities:

The Northern Corridor Project Assistant will work under the general direction of the USAID/Malawi Projects Officer. He will be responsible for monitoring, facilitating and expediting all aspects of implementation of the Malawi Northern Corridor project and will coordinate with the responsible GOM officials and other donors as appropriate in carrying out these duties.

Specific Job Functions:

1. Commodity Procurement: The Project Assistant will assist as required in the preparation of documentation relative to equipment and commodity specifications; advertising procurement actions in accordance with AID regulations; procurement documentation (purchase order, tender documents, contracts etc.), payment documentation (L/Comm, Supplier's Letter of Credit, Vouchers) and receiving and inspection reports. In carrying out these responsibilities, the Project Assistant will collect appropriate materials and ensure the preparation of necessary documentation by appropriate USAID or regional support staff (REDSO/ESA, SARP, RFMC).

2. Construction Activities: The Project Assistant under the guidance of appropriate AID support staff, will prepare a construction supervision plan. He will perform duties as assigned to him under such a plan. Duties and responsibilities are expected to include periodic physical checks of construction progress, monitoring the rate of disbursements made under the FAR payment method and preparing reports summarizing construction elements upon their completion.

3. Financial Management: The Project Assistant, with guidance and assistance from the USAID the financial management office, will prepare earmarking reservation documentation (PILs and PIO's), monitor and manage closely advances extended to the host government and ensure that advances are liquidated and managed in a timely manner, prepare funding requests for agreed payment mechanisms and prepare periodic project financial reports in form and substance established by USAID/Malawi.

4. Other Duties: The Project Assistant also may be assigned similar duties and responsibilities which support the implementation of other Mission transport sector activities in USAID/Malawi's portfolio.

5. Reports: The Project Assistant will prepare monthly project implementation status reports, Semi-annual Project Implementation Reports and any other project reporting requirements established by USAID. The Project Assistant will be expected to document trips, meetings and conversations which substantially pertain to implementation of the project.

Qualifications:

A Bachelors degree, or equivalent, in business management, economics, finance or related fields is required. At least five years of project management experience is mandatory, preferably in construction, transport, or planning.

STATUTORY CHECKLIST
(Malawi FY 86)

Listed below are statutory criteria applicable generally to FAA funds, and criteria applicable to individual fund sources: Development Assistance and Economic Support Fund.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FAA Sec. 481(h) (1); FY 1986 Continuing Resolution Sec. 527. Has it been determined or certified to the Congress by the President that the government of the recipient country has failed to take adequate measures or steps to prevent narcotic and psychotropic drugs or other controlled substances (as listed in the schedules in section 202 of the Comprehensive Drug Abuse and Prevention Control Act of 1971) which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully?

   No such determination has been made.

2. FAA Sec. 481(h) (4). Has the President determined that the recipient country has not taken adequate steps to prevent (a) the processing, in whole or in part, in such country of narcotic and psychotropic drugs or other controlled substances, (b) the transportation through such country of narcotic and psychotropic drugs or other controlled substances, and (c) the use of such country as a refuge for illegal drug traffickers?

   Such a determination has not been made.

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

   GOM is not so liable.

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

No such action taken by GOM nor its agencies and subdivisions.

5. FAA Sec.620(a), 620(f), 620D; FY 1986 Continuing Resolution Sec. 512. Is recipient country a Communist country? If so, has the President determined that assistance to the country is important to the national interests of the United States? Will assistance be provided to Angola, Cambodia, Cuba, Iraq, Syria, Vietnam, Libya, or South Yemen? Will assistance be provided to Afghanistan without a certification?

Malawi is not a Communist Country.

No. No.

6. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction by mob action of U.S. property?

No.

7. FAA Sec. 620(l). Has the country failed to enter into an agreement with OPIC?

No.

8. FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5.

(a) Has the country seized, or imposed any penalty or sanction against any U.S., fishing activities in international wat

No.

(b) If so, has any deduction required by the Fishermen's Protective Act been made?

N/A

9. FAA Sec. 620(q); FY 1986 Continuing Resolution Sec. 518. (a) Has the government of the recipient country been in default for more than six months on interest or principal of any AID loan to the country? (b) Has the country been in default for more than one year on interest under a program for which the appropriation bill (or continuing resolution) appropriates funds?

No

10. FAA Sec 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the amount of foreign exchange or other resources which the country has spent on military equipment? (Reference may be made to the annual "Taking into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB."

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

Malawi has maintained good diplomatic relationshis with the United States. The initial bilateral assistance agreement is currently under negotiations.

12. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current ATD Operational Year Budget? (Reference may be made to the Taking into Consideration memo.)

Malawi is not in arrears with respect to U.N. obligations.

13. FAA Sec. 620A. Has the government of the recipient country aided or abetted, by granting sanctuary from prosecution to, any individual or group which has committed an act of international terrorism?

Malawi Government has not aided or abetted international terrorism acts.

14. ISDCA of 1985 Sec. 552(b). Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures?

Such a determination has not been made.

15. FAA Sec. 666. Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA?

Negative.

16. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it transferred a nuclear explosive device to a non-nuclear explosive device? (FAA Se. 620E permits a special waiver of Sec. 669 for Pakistan.)

Negative.

17. FAA Sec. 670. If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported illegally (or attempted to export illegally) from the United States any material, equipment, or technology which would contribute significantly to the ability of such country to manufacture a nuclear explosive device?

Negative.

18. SDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. of Sept. 25 and 28, 1981, and failed to disassociate itself from the communique issued? If so,has the President taken into account? (Reference may be made to the Taking into Consideration memo.)

Malawi was not represented at the meeting and so was not axxociated with the communique

19. FY 1986 Continuing Resolution Sec. 541. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?

Negative.

Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilization?

Negative.

Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?

Negative.

20. FY 1986 Continuing Resolution. Is the assistance being made available to any organization or program which has been determined as supporting or participating in the management of a program of coercive abortion or involuntary sterilization?

Not Applicable

If assistance is from the population functional account, are any of the funds to be made available to family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services?

Not applicable

21. FY 1986 Continuing Resolution Sec. 529. Has the recipient country been determined by the President to have engaged in a consistent pattern of opposition to the foreign policy of the United States?

Such a determination has not been made.

22. FY 1986 Continuing Resolution Sec. 513. Has the duly elected Head of Government of the country been deposed by military coup or decree?

Negative

D. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria.

FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy?

No such determination has been made.

2. Economic Support Fund Country Criteria

FAA Sec.502B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the country made such significant improvements in its human rights record that furnishing such assistance is in the national interest?

No such determination is presently in effect.

5C(2) PROJECT CHECKLIST

. Northern Transport Corridor Project:

Number: 690-0237

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A. includes criteria applicable to all projects. Part B. applies to projects funded from specific sources only: B.1 applies to all projects funded with Development Assistance loans, and B.3. applies to projects funded from ESF.

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

A GENERAL CRITERIA FOR PROJECT

1. FY 1986 Continuing Resolution Sec.524; FAA Sec. 634A

Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project.

CN expired without objection on June 26 1986

2. FAA Sec. 611(a)(1). Prior to obligation in excess of $500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

Yes, See Technical Analysis and Financial Plan of Project Paper.

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

No further legislative action is required.

4. FAA Sec. 611(b); FY 1986 Appropriation Act Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles, Standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See AID Handbook 3 for new guidelines.)

Assistance is not for such purposes.

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?

Yes, See Annex D of Project Paper.

6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

Project is part of AID's Sothern Africa Regional Program and is part of a multidonor project.

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

a. Yes expand trade between Malawi and Tanzania.
b. Yes for corridor operations.
c. Neutral.
d. Neutral.
e. Yes by reducing transport costs and insuring greater transport reliability.
f. Nuetral.

8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

US firms will be competing for commodity supply contracts.

9. FAA Sec. 612(b), 636(h); FY 1986 Continuing Resolution Sec.507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

The Malawi Government is expected to contribute an estimated $7m or over 12% of the total estimated project costs of $90m. The U.S. Government does not own any foreign currencies that may be used for the project.

10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

No.

11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes.

12. FY 1986 Continuing Resolution Sec. 522. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar competing commodity?

Project assistance is not for the promotion of any specific commodity for export by Malawi.

13. FAA 118(c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16 . Does the project or program take into consideration the problem of the destruction of tropical forests?

Yes, see Environmental Assessment, prepared by the Regional Environmental Advisor in Nairobi (Annex G4 of the PP). Project has neutral impact on problem of the destruction of tropical forests.

14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)?

This is not a Sahel project.

15. FY 1986 Continuing Resolution Sec. 533. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution?

No.

16. ISDCA of 1985 Sec. 310. For development assistance projects, how much of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?

ESF funds will be used to finance this project.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

Not applicable to this ESF funded activity.

a. FAA Sec. 102(a), 111, 113, 281(a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

b. FAA Sec. 103, 103A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used?

c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

e. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

f. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?

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

2. Development Assistance Project Criteria (Loans Only).

Not applicable.

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, at a reasonable rate of interest.

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

3. Economic Support Fund Project Criteria

a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions,purposes, and programs of part I of FAA?

Yes
Yes.

b. FAA Sec. 531(c). Will assistance under this chapter be used for military, or paramilitary activities?

No.

c. ISDCA of 1985 Sec. 207. Will ESF funds be used to finance the construction of the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such country is a party to the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (The "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States?

No.

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

Commodities granted will not generate local currency proceeds, thus no special account arrangements have been made.

5C(3) - STANDARD ITEM CHECKLIST

Northern Transport Corridor Project Number: 690-0237

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. PROCUREMENT

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?

Project financed contracts will follow AID contracting procedures which contain provisions for promoting small business participation.

2. FAA Sec. 604(a). Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him?

Yes.

3. FAA Sec. 604(d). If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?

Malawi does not descriminate against U.S. Marine Insurance.

4. FAA Sec. 604(e); ISDCA of 1980 Sec. 705(a). If offshore procurement of agricultural commodity or product is to be financed , is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in the U.S.)

No offshore procurement of agricultural commodities or product will be financed.

5. FAA Sec. 604(g). Will construction or engineering services be procured from firms of countries which are direct aid recipients and which are otherwise eligible under Code 941, but which have attained a competitive capability in international markets in one of these areas? Do these countries permit United States firms to compete for construction or engineering services financed from assistance programs of these countries?

   AIDs regulations governing acceptable sources and nationality will apply to this activity and the procurement process will be monitored by AID personnel thereby insuring adhering to authorized sources and nationalities of suppliers of construction and engineering services.

6. FAA Sec.603. Is the shipping excluded from compliance with requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent that such vessels are available at fair and reasonable rates?

   Shipping not excluded from compliance with said requirements.

7. FAA Sec. 621. If technical assistance is financed will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

   Planned technical assistance will be provided on a contract basis to the fullest extent possible.

8. International Air Transportation Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

   Yes.

9. FY 1986 Appropriation Act Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

   Yes.

B. CONSTRUCTION

1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services be used?

   Construction services will be obtained from AID Geographic Code 941 or SADCC member countries. The U.S. is included as an eligible source of these services.

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

   Construction contracts will be let on a competetive basis.

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed $100 million? (except USAID for productive enterprises in Egypt that were described in the CP)?

   The aggregate value of assistance provided is far less than $100 million for this project.

C. OTHER RESTRICTIONS

1. FAA Sec. 122(b). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter?

   N/A Grant financed assistance.

2. FAA Sec.301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?

   N/A

3. FAA Sec. 620(h). Do arrangements exist to ensure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries?

   Such arrangments exist.

4. Will arrangements preclude use of financing:

a. FAA Sec. 104(f); FY 1986 Continuing Resolution Sec. 526. (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice abortions; (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (3) to pay for any biomedical research which relates, in whole or in part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; (4) to lobby for abortion?

1. Yes, arrangements will preclude such uses.
2. Yes, arrangements will preclude such uses.
3. Yes, arrangements will preclude such uses.
4. Yes, arrangements will preclude such uses.

b. FAA Sec. 488. To reimburse persons, in the form of cash payments, whose illicit drug crops are eradicated?

Yes, arrangements will preclude such uses.

c. FAA Sec.620(g). To compensate owners for expropriated nationalized property?

Yes, arrangements will preclude such uses.

d. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs?

Yes, arrangements will preclude such uses.

e. FAA Sec. 662. For CIA activities?

Yes, arrangements will preclude such uses.

f. FAA Sec. 636(i). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained?

Yes, arrangements will preclude such uses.

g. FY 1986 Continuing Resolution, Sec. 503. To pay pensions, annuities, retirement pay, or adjusted service compensation for military personnel?

Yes, arrangements will preclude such uses.

h. FY 1986 Continuing Resolution, Sec. 505. To pay U.N. assessments, arrearages or dues?

Yes, arrangements will preclude such uses.

i. FY 1986 Continuing Resolution, Sec. 506. To carry out provisions of FAA section 209(d) (Transfer of FAA funds to multilateral organizations for lending)?

Yes, arrangements will preclude such uses.

j. FY 1986 Continuing Resolution, Sec. 510. To finance the export of nuclear equipment, fuel, or technology?

Yes, arrangements will preclude such uses.

k. FY 1986 Continuing Resolution, Sec. 511. For the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?

Yes, arrangements will preclude such uses.

l. FY 1986 Continuing Resolution, Sec. 516. To be used for publicity or propaganda purposes within U.S. not authorized by Congress?

Yes, arrangements will preclude such uses.