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Report No: 21559

IMPLEMENTATION COMPLETION REPORT
(IDA-20950)

ON A

CREDIT

IN THE AMOUNT OF IN THE AMOUNT OF US\$ 37.0 MILLION

TO THE

UNITED REPUBLIC OF TANZANIA

FOR A

PORT MODERNIZATION PROJECT
(PROJECT ID: P002784)

December 28, 2000

**TRANSPORT
AFRICA REGION**

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CURRENCY EQUIVALENTS

(Exchange Rate Effective 08/25/2000)

Currency Unit = Tanzania Shilling

Tsh 1.0 = US\$ 0.0012507817

US\$ 1.0 = Tsh 799.50

FISCAL YEAR

January 1 December 31

ABBREVIATIONS AND ACRONYMS

ASYCUDA	Automated System for Customs Data
CAS	Country Assistance Strategy
DANIDA	Danish International Development Agency
DCA	Development Credit Agreement
DSM	Dar Es Salaam
EIB	European Investment Bank
FINIDA	Finnish International Development Agency
Govt.	Government
HF	High Frequency
ICB	International Competitive Bidding
ICR	Implementation Completion Report
IDA	International Development Agency
IMO	International Maritime Office
KOJ	Kurasini Oil Jetty
MARPOL	Marine Pollution (Internat. Convention for Prevention of Pollution from Ships)
MIS	Management Information System
MTR	Mid-term Review
N.B.F.	Non Bank Financed
NCB	National Competitive Bidding
PCU	Project Coordination Unit
PSRC	Parastatal Sector Reform Commission
RTG	Rubber Tyred Gantry
QAG	Quality Assurance Group
SAR	Staff Appraisal Report
SBM	Single Buoy Mooring
SIDA	Swedish International Development Agency
SSG	Ship- to-Shore Gantry
TA	Technical Assistance
TDW	Tonnage Dead Weight
TEU	Twenty Foot Equivalent Unit (container)
THA	Tanzania Harbours Authority
TRA	Tanzania Revenue Authority
TRC	Tanzania Railways Corporation
TZR	Tanzania Zambia Railways
US\$	United States Dollar
VDS	Vessel Delay Surcharge
VHF	Very High Frequency

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IMPLEMENTATION COMPLETION REPORT
UNITED REPUBLIC OF TANZANIA
PORT MODERNIZATION PROJECT (CREDIT 2095-TA)**

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<i>Project ID:</i> P002784	<i>Project Name:</i> PORTS MODERNIZATION
<i>Team Leader:</i> Simon Thomas	<i>TL Unit:</i> AFTTR
<i>ICR Type:</i> Core ICR	<i>Report Date:</i> December 14, 2000

1. Project Data

Name: PORTS MODERNIZATION
Country/Department: TANZANIA
Sector/subsector: TP - Ports & Waterways; XX - Unidentified

L/C/TF Number: IDA-20950
Region: Africa Regional Office

KEY DATES

	<i>Original</i>	<i>Revised/Actual</i>
<i>PCD:</i> 03/31/1989	<i>Effective:</i> 05/07/90	12/28/90
<i>Appraisal:</i> 07/07/1989	<i>MTR:</i>	
<i>Approval:</i> 02/27/1990	<i>Closing:</i> 06/30/97	06/30/2000

Borrower/Implementing Agency: GOVT/TANZANIA HARBOURS AUTHORITY
Other Partners: NORAD, DANIDA, SIDA, EIB, NETHERLANDS, FINNIDA.

STAFF	Current	At Appraisal
<i>Vice President:</i>	Callisto Madavo	V. K. Jaycox
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2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: S

Sustainability: L

Institutional Development Impact: SU

Bank Performance: S

Borrower Performance: S

QAG (if available)

ICR

Quality at Entry:

Project at Risk at Any Time: No

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 *Original Objective:*

This project was, de facto, a continuation of the Port Rehabilitation Project (PRP) Cr.1536-TA which became effective in mid-1985 and closed on December 31, 1992. The port of Dar es Salaam has 11 dry cargo deepwater berths; PRP converted berths 9 - 11 into a container terminal with a limited container stacking area, provided some handling equipment, constructed bulk grain storage facilities and started the rehabilitation of the general cargo port. The level of port traffic fell substantially in the early 1980's, from its peak in 1977, but this decline was then reversed and annual traffic growth averaged about 7 percent to 1988. More particularly, container traffic showed very rapid growth and this growth was expected to continue. Total dry cargo was forecast to increase 60 percent by 1997 to 3.35 million tonnes, while loaded container traffic was forecast to increase by over 200 percent to more than 150,000 TEU. The Mid-Term Review of PRP (1988) concluded that, despite the improvements in performance and the additional port capacity provided by the project, the port of Dar es Salaam (DSM) would experience severe capacity constraints, by the mid-1990s, unless further improvements were made.

The majority of the port traffic was in transit to/from the landlocked countries of East and Central Africa. In 1988, Tanzanian traffic accounted for 41 percent of total port traffic and Zambia 40 percent; the remainder of the traffic was split between Zaire, Burundi, Rwanda, Uganda and Malawi. Despite the level of transit traffic, it had become recognized that DSM had failed to exploit fully its potential as a transit port for the region and that additional traffic could be attracted by improved facilities and levels of service. The main objectives of the Port Modernization Project (PMP), as stated in the SAR, were, therefore: **“to expand the physical, managerial and operational capabilities of THA (Tanzania Harbours Authority) to meet the traffic volume expected in the 1990's and to provide a more reliable and cost effective link with the neighboring landlocked countries”**.

The Project objectives were clear and appeared realistic. The objectives reflected the Tanzanian Government's “Programme for Transport Sector Recovery”, which called for institutional changes and rehabilitation of the transport sector in order to re-establish transport infrastructure and operations to serve the economy. The Program for Recovery was fully endorsed by the Transport Sector Donors' Conference which was held in December 1987. The Donors agreed to provide major support in the road sector (the Integrated Roads Project), the railway sector (Railway Restructuring Project) and the port sector (Port Modernization Project). The port project would substantially benefit the economy through lower port and shipping costs, more efficient port services and increased foreign exchange earnings.

One of the six major objectives of the World Bank's 1990 Country Assistance Strategy (CAS) was to “reduce sectoral and physical constraints”. The CAS has been updated several times, since 1990, but has continued to maintain the emphasis on the development and rehabilitation of the transport sector, often citing specifically the port sub-sector. The Project objectives were fully consistent with the Bank's assistance strategy.

Overall, the project was highly responsive to borrower circumstances and development priorities.

3.2 *Revised Objective:*

In 1994, The Government of Tanzania (GOT) established the Tanzania Revenue Authority (TRA), and the Development Credit Agreement (DCA) was amended, in 1995, to include the sentence: “In addition, the customs and transit control activities of the Tanzania Revenue Authority will be strengthened and streamlined.” This also reflected the “Programme for Transport Sector Recovery”, which stated: “To promote regional integration, customs procedures and transit arrangements should be simplified to improve the ease with which transit cargo can pass through Tanzania”. As a result of the amendment, support for

the customs and transit control was substantially increased.

In 1996, the GOT made a fundamental change in its strategy toward the major parastatals and commenced its policy of privatization. The DCA was further amended (1997) to include the concessioning of the container terminal. The Presidential Parastatal Sector Reform Commission (PSRC) was made the implementing agency for this Project component. The concessioning of the container terminal was also made a condition of the Structural Adjustment Credit.

3.3 Original Components:

The table below presents the original project categories (inclusive of physical & price contingencies), as presented in the SAR.

ORIGINAL PROJECT COMPONENT CATEGORIES
(Costs in US\$ million)

MAIN COMPONENT CATEGORY	COST ESTIMATE	IDA FINANCED
A. CIVIL WORKS	65.50	17.50
B. EQUIPMENT	27.51	8.60
C. DESIGN / SUPERVISION	5.36	2.30
D. INSTITUTIONAL DEVELOPMENT	23.97	8.60
TOTAL	122.34	37.00

3.4 Revised Components:

Following the 1995 amendment to the DCA, the four original component categories of the project were restructured to reflect the new activities and to delineate the "Port" and "Customs" components:

1. Civil Works (Port)
2. Equipment (Port)
3. Consulting services/TA (Port)
4. Consulting services/TA (Customs and PSRC)
5. Equipment (Customs)
6. Civil Works (Customs)

The first and fourth tables in Annex 2 detail costs and financing, on the basis of the revised main component categories. During the project, 17 revisions were made to the original list of project activities. Some major activities, such as the paving of the lighter wharf and rehabilitation of the Belgian wharf, were deleted from the project, while the rehabilitation of customs and transit buildings and the dredging and straightening of the harbor entrance channel were added. Despite the changes, the final total project cost was very close to the original cost estimate.

3.5 Quality at Entry:

The quality at entry is rated "satisfactory":

The design of the project was supported by substantial preparatory work and incorporated the experience of the previous port projects, particularly the PRP which was then under implementation. The design of the project incorporated or, at least, attempted to incorporate:

- (a) The careful assessment of investment needs (grain silos, constructed under a previous port project,

have rarely been used). The project components were subjected to rigorous analysis and many were then to be further reviewed on the basis of the results of the comprehensive "Port Development Study" which formed part of the project.

(b) The more effective use of technical assistance. It was thought that preparatory work had identified and addressed the factors underlying the relatively limited achievement of institutional objectives in previous projects. The project tried to address the failings of previous TA through monitoring and guidance by THA and by the appointment of counterpart staff.

(c) The focus on the problem of staff motivation. An incentive scheme for port workers had just been introduced by THA and TA was included specifically to develop further the scheme.

(d) The establishment of satisfactory implementation arrangements. The project was large and complex:

- Seven co-financiers involved (later increased to eight)
- 25 project components under four main categories
- Two implementing agencies (THA and the Customs Department), and a third (Presidential Parastatal Sector Reform Commission) was added

THA, the primary implementing agency, had gained considerable implementation experience from the previous projects and the Project Coordination Unit (PCU) was to be provided with TA and training. The project design successfully integrated the efforts of the project co-financiers and satisfactorily addressed implementation including project management and coordination, monitoring and reporting, procurement and accounting and auditing.

(e) The establishment of monitorable performance indicators. With the exception of the level of service to inland transport, adequate performance indicators were established.

(f) Adherence to the Bank's safeguard policies. The only safeguard policy relevant to this Project was "OP 4.01, Environmental Assessment". The project was assessed as "B category" because the originally identified civil works did not pose any serious environmental concerns. PRP environmental procedures were to be applied in this project. The TOR for the Port Development Study included a detailed environmental impact study, consistent with the World Bank Technical Paper "Environment Considerations for Port and Harbor Development" (1989 edition), with special emphasis on any proposed dredging or reclamation works. The Port Development Study also included an assessment of the facilities and operating practices necessary to join the International Convention for Prevention of Pollution from Ships (MARPOL). Provision was made in the Project for fire fighting equipment and pollution control facilities.

(g) The realistic assessment of the Project risks. The Project risks were identified as: traffic growth; costs and delays in implementation; and the actual achievement of operational improvements. When privatization was included in the Project, management resistance was recognized as a potential risk.

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

The Project was extended for a total of 3 years and was thus implemented over a 10 year period. The long implementation period reflects the adjustments made to the scope and focus of the Project in order to support the major changes in the Government's strategy toward economic liberalization and the parastatal sector that took place during the 1990's. The Project achieved most of its original and revised objectives:

(a) The capacity of the port was expanded to meet the traffic demands of the 1990's and beyond. The total dry cargo traffic handled at the port remains at around 2 million tonnes, but the present level of container

traffic (slightly more than 100,000 TEU) could not be handled without the investments made under the Project. The dredging and straightening of the entrance channel now allows 24 hour port access, considerably improving the operational effectiveness and competitive position of the port.

(b) The upgrading the Kurasini Oil Jetty (KOJ) to accommodate larger refined product tankers and increase unloading productivity allowed the full liberalization of the Tanzanian petroleum sector in 2000 and the withdrawal of subsidies from the Tiper refinery . The Project complemented the activities undertaken under the Petroleum Rehabilitation Project Cr.2202-TA, and the macro-economic policy dialogue.

(c) The privatization of the container terminal of Dar es Salaam introduced as an objective in 1997, was achieved with the signing of a lease agreement in May, 2000. The private operator took over running the container terminal in September 2000. This is the initial stage of fundamental change to the port sector in Tanzania.

(d) The improvement in port service performance was not fully achieved but considerable operational improvements were made to the level of service to ships. Berthing delays were eliminated, and container handling rates have risen well above the Conference Lines' penalty floor of 200 moves/day.

However, in some areas the Project was rather less successful. In terms of the level of service to cargo, the project did not yield the improvements anticipated. There was, for example, no sustained reduction in container dwell time. The expansion in the management capacity of THA was not substantial . There was some computerization in THA but not the system-wide implementation expected; for example, a computer-based MIS was not introduced. Technical assistance and training did not result in any marked or sustained improvements in management or institutional effectiveness within THA (with the exception of the PCU). The incentive scheme proved unsuccessful and was terminated in the early 1990's.

The Customs component provided equipment, communications and the rehabilitation of offices and facilitated the introduction of ASYCUDA (computerized customs data entry system) which substantially reduced customs' clearance processing times. But, during the project period, the Government introduced additional revenue control measures which offset the benefits in service times brought about by streamlining existing procedures. Much of the customs component was, however, implemented at the very end of the Project, and will support the new Tax Administration Project which is aimed specifically at improving the efficiency and effectiveness of the TRA, including Customs.

The very limited achievement of the Project's original institutional objectives must be viewed in the context of the fundamental change in the institutional framework of the sector, with THA becoming a landlord authority, which was supported by the Project. This change in overall strategy made the original institutional objectives largely irrelevant.

Overall, the project outcome is considered satisfactory.

4.2 Outputs by components:

The overall output of the project is considered **satisfactory**.

Civil Works: The overall output of this category was **satisfactory**. Two of original components were not implemented and one was financed under PRP. Civil works represented about 74% (US\$93 million) of the total project cost

Paving the container terminal, completion of Kurasini & Ubungo depots, and rehabilitation of the Copper road were combined in a single contract, completed in 1994, about two years behind the SAR schedule. The output of these two components (90,000m² of concrete block and asphalt paving, 0.7 km of road works, rail track works, offices, workshops, fencing, and canopies) increased container storage capacity from 3,000 to 6255 TEU, and completed the improvement of the road connection between the port

and the inland terminals of Kurasini, ZAMCARGO and Malawi Cargo Center, which had been started under PRP. However, the use of the inland facilities declined with the reduction in transit traffic and the Ubungo depot was leased to the private sector. A subsequent contract repaired some 15,000 m² of damage to the original container terminal pavement, which was damaged during the pavement extension construction works.

Rehabilitation of the central workshop and rehabilitation of berths 1-8 were implemented as one contract. About 160,000 m² were re-paved and services, sheds, offices, substations, switchboards and power distribution networks rehabilitated. The crane power supply system was replaced and a new rail layout introduced. The contract was completed satisfactorily in 1991, well within schedule.

Kurasini oil jetty strengthening increased the berthing capacity of the KOJ from 18,000 to 40,000 tonne tankers. The improvements included two new berthing dolphins and two new mooring dolphins. The component was completed in 1994, about two years behind the SAR schedule. *Kurasini oil jetty rehabilitation & improvement* increased pumping capacity to 750 tons/hour, constructed a new pipeline from KOJ to the TIPER refinery and the Tazama tank farm, linked the coastal oil jetty into the system and raised fire-fighting standards.

Entrance channel dredging and straightening was added on the recommendation of the Port Development Study. The dredging was completed in 1998 but the installation of navigational aides was seriously delayed and 24 hour navigation only became possible in 2000. There are now no access restrictions on vessels up to 40,000 DWT and 225 m long.

Rehabilitation of customs buildings included customs offices at DIA, the first two floors of Mapato House and 15 border or transit stations. The quality of the rehabilitation work is considered satisfactory.

Goods and Equipment: Overall, the output of this category is considered satisfactory. The category comprised 5 components, which represented about 17% (US\$22 million) of the total project cost:

General cargo equipment: included the procurement of a number of vehicles, front loaders and fork lifts

THA office equipment: included a number of personal computers, printers, etc.

Central workshop equipment: generally satisfactory but one supplier failed to meet the after-sales service obligations and the matter is still being handled by the Legal Department of THA.

Container terminal handling equipment: included one ship-to-shore gantry, two rubber-tired gantries, five 42 ton front loaders, five 12 ton forklifts, 15 port tractor/trailer units and 5 highway tractor/trailer units. The equipment was delivered in 1996/1997. Corrective actions were needed for the trailers and the 12 ton forklifts.

Equipment for Customs: comprised the supply and installation of computers, generators and radio communication equipment. Most of the equipment was installed during the last few months of the project, following the physical rehabilitation of the 15 border or transit stations.

Consulting Services: The overall output of this category was satisfactory. The category represented about 6% (US\$7 million) of the total project cost:

Design/supervision of civil works: with the exception of the initial design for the rehabilitation and improvement of KOJ, the quality of the design and construction supervision work was good.

Port Development Study: Completed in 1994, the Study resulted in several important changes to the Project design and scope of activities.

Commercialization Study: The conclusions of the Study were overtaken by the Government's decision to privatize parastatal transport operations and its recommendations were never adopted. However, the concept of separable business units within the port has been adopted as the basis of the privatization approach.

Single Buoy Mooring (SBM) Study: Bidding documents were drafted for the replacement or relining of the submarine pipeline from the SBM but they were never finalized. Subsequently, IDA financed a short study to evaluate the comparative costs of importing crude and refined oil through the SBM and KOJ. The report is presently being evaluated.

Lighter Quay Study: The Study, completed in 1996, reviewed the existing and potential uses of the quay but no action has yet been taken on its recommendations.

Technical Assistance to Customs: The only substantial assistance for Customs was the design and supervision of the civil works which was generally satisfactory.

Institutional Development: The category represented about 3% (US\$4 million) of the total project cost:

Project Coordination Unit: The output of this component was satisfactory. Three TA experts were attached to the PCU for the first four years and local professional staff were trained. After 1994, the PCU was locally staffed and implemented this complex project effectively.

Technical Assistance to THA Management: This was implemented by the attachment of TA experts, the participation of THA management in seminars/courses, and study tours. 24 TA experts were attached to various activities, including: statistics; central workshop; container terminal operations; manpower development; incentive scheme; Bandari college; commercialization; and, general port operation issues. The TA cost US\$3.70 million but had little sustained impact. No TA experts were attached after 1995, and the overall output of this component is considered unsatisfactory.

Transaction's Adviser for the concessioning of the container terminal: The assistance to PSRC was highly satisfactory.

4.3 Net Present Value/Economic rate of return:

Based on very conservative assumptions (detailed in Annex 3), the ex-post economic rate of return (ERR) is estimated at 13.3% with a Net Present Value (10%) of US\$20.8 million. Although the results are lower than those estimated in the SAR (ERR of 20% with a NPV of US\$42.7 million), they are considered satisfactory, in view of the very substantial decline in the level of transit traffic, which was largely outside the control of the THA (see para. 5.1). The ex-post economic analysis does not include any of the very large future economic benefits which are expected from either the privatization of the container terminal operations or the rest of the port activities.

4.4 Financial rate of return:

The ex-post financial rate of return of the project to THA is estimated, on conservative assumptions, at 7.5% (SAR 14%). This can be considered as marginally satisfactory, given the substantially lower port traffic levels. THA remains a profitable institution which generates a substantial operating surplus, sufficient to meet its investment, tax and debt service obligations.

4.5 Institutional development impact:

While the targeted TA had a relatively negligible effect on institutional development within THA, the project facilitated major structural reform in the institutional framework of the sector through the privatization of port activities. This reform will change THA from a full service provider to a "landlord"

authority which will have a profound impact on the future development of the port sector and the quality of port services.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

The major exogenous factors that affected the implementation and outcome of the project were the following:

Regional political developments: Transit traffic was critical for the forecast growth in port traffic. Though the assumptions appeared reasonable at the time of appraisal, the geo-political situation in Southern and Central Africa then underwent massive structural change. The end of apartheid opened up the South African ports to Zambian transit traffic; peace in Mozambique opened up additional routes for Malawi transit traffic; and major civil strife in Zaire, Burundi, and Rwanda (ZBR) reduced their external commercial trade flows, though generating some relief food aid. Dry cargo traffic in 1997 was only 55% of the SAR forecast and in 1999 traffic was only marginally higher than in 1988. The reduction in traffic was almost entirely the result of fall in transit traffic, which is now less than half the level of the early 1990's. This fall in transit traffic significantly reduced the short-term economic and financial impact of the project.

Behavior of cargo consignees: Many Tanzanian consignees are prepared to store containers at the port for long periods, either hoping for tax exemption or while trying to raise the funds for clearance, thus nullifying the project's efforts to reduce container dwell times.

Performance of the Tanzania Railways Corporation (TRC): Transit containers to the ZBR countries and Uganda are often subject to long dwell times in the port because of TRC's inability to transport the traffic inland within reasonable time.

5.2 Factors generally subject to government control:

The major government controlled factors that affected the project were the following:

Policy toward the parastatal sector and the port sub-sector: Government policy toward the major parastatals underwent substantial change during the project: from commercialization, within the public sector, to the privatization of operations. The project was amended to support this change in policy.

Liberalization of the economy: During the 1990's, the Government progressively liberalized the economy. The project was extended for three years to accommodate the improvement of KOJ which was critically necessary for the liberalization of the petroleum sector.

Re-organization of Government: The TRA was established, in 1994, to increase the efficiency of the tax collection system. The design of the project was modified to provide increased support to the Customs Department of TRA.

Duty Collection Procedures: To reduce the loss of customs' revenue, the Government introduced new regulations on bonded warehouses and new auditing procedures for cargo clearance. These changes increased container dwell time and negated the previous improvement in cargo clearance time (80% of consignments cleared within two days).

5.3 Factors generally subject to implementing agency control:

Human resource management: The poor discipline, low morale and inadequate workshop staffing contributed to the low equipment availability and port productivity. The incentive scheme was designed to address the issue of motivation but initial productivity increases were not sustained, the scheme generated

dissatisfaction and, in 1994, it was terminated.

Management/staff communication: The poor communication within the THA management team and between management and port staff appears to have had a negative impact on the achievement of the operational targets.

Operational planning & control: Inefficient planning and control procedures for daily container handling operations and inappropriate operational pattern for RTG operations had a negative impact on operational performance.

Project coordination: The performance of the PCU facilitated the satisfactory implementation of the project.

5.4 Costs and financing:

The actual project cost of **US\$126.43 million** is extremely close to the SAR estimate, US\$122.30 million. However, there were very substantial changes within the project and large variations in the costs of individual components, which are outlined below:

Civil Works: The total cost of this category was 142% of the SAR estimate as a result of the change in the scope of the works. Additional works were included (e.g. dredging, customs buildings) and the scope of some works increased (Rehabilitation of berths 1-8). Some works were deleted (i.e. rehabilitation of Belgian & Lighter wharves), some works were funded under PRP, and KOJ was rehabilitated rather than reconstructed.

Equipment: The total cost of this category was 79% of the SAR estimate. Cost savings were made as it was found that some equipment did not require replacement.

Consultants' Services: The total cost of this category was 126% of the SAR estimate, reflecting the addition of new studies and increased design/supervision costs for the civil works.

Institutional Development: The total cost was 22% of the SAR estimate. A very large component of Institutional TA to THA was planned but it was discontinued in 1995, when it became clear that it was having very limited impact. The assistance for the privatization of the container terminal was relatively inexpensive (US\$0.54 million).

The aggregate project financing arrangements remained relatively close to the SAR estimates:

	SAR	SAR	Actual	Actual
	US\$ million	%	US\$ million	%
IDA	37.0	30	37.1	29
GOT	28.8	23	22.7	18
Co-financiers	56.5	47	67.2	53

There were some major changes in the financing arrangements at the component level, for example, the container terminal equipment was financed by the EIB (a new co-financier) rather than by FINNIDA and THA.

6. Sustainability

6.1 Rationale for sustainability rating:

The sustainability of the project is rated as **likely**. The project has provided the infrastructure and operating equipment which, if efficiently managed, operated and maintained, will enable the port to meet traffic demand at high service levels, for many years ahead, and become a reliable and cost effective link to the neighboring landlocked countries. The constraints imposed on operational performance by the parastatal framework of THA are being progressively removed through the privatization of port operations. Operations at the container terminal have already been privatized and the process for privatizing the other operational activities has been initiated. The container terminal has been leased to the private sector for a 10 year period, as no major investments during this period are envisaged. This period will demonstrate the potential improvements in the operational and financial performance of the terminal, prior to a longer-term concession from 2010, when major investments will be required. Given the general lack of success in sustaining operational improvements within the parastatal institutional environment, privatization of operational activities has become accepted in Tanzania as the way forward.

The sustainability of the TRA component is also considered likely as the rehabilitated infrastructure will now be supported by the new Tax Administration Credit that will include appropriate TA for the streamlining of procedures, reform of the institutional and legal frameworks, etc.

6.2 Transition arrangement to regular operations:

The transition arrangements for the project's future operation revolve around the privatization program for the remaining business units of THA. A transaction adviser is being selected and it is planned to have all port operations privatized by 2004. Given the level of capacity available in the general cargo berths, there are unlikely to be major operational problems or capacity constraints in the period to privatization. Similar to the container terminal lease, all concessions will include contractual performance standards. Any future port related project should focus on developing THA as an efficient "landlord" authority. The optimum timing for an impact evaluation would be in 2002 or 2003.

7. Bank and Borrower Performance

Bank

7.1 Lending:

Overall, the Bank's performance at lending (identification, preparation and appraisal) was **satisfactory**, within the prevailing paradigm of support for major transport parastatals.

The project was consistent with the Government's priorities and the Bank's CAS. The project was identified and prepared as an extension of PRP and this led to continuity. The Bank was fully involved in project preparation and provided considerable assistance to the Borrower. The project was consistent with the Bank's safeguard policies, and the project design, despite some shortcomings, was satisfactory. The Bank's input during this stage amounted to 10.3 staff weeks consisting of a transport economist, two economists/financial analysts and a port engineer; most were involved in PRP and continuity was maintained. However, the design of the institutional development component might have been enhanced by a specialized port management expert.

The Bank's performance during project appraisal is also evaluated as satisfactory. 23.5 staff weeks were used for appraisal and negotiations. Staff continuity was maintained. The SAR presented the level of government commitment to the project and included appropriate TA to strengthen THA's project management capacity. Project risks and key variables were recognized and incorporated in the economic analysis. Perceived lessons learned from previous projects in the country/sector were considered at appraisal and incorporated into the project design, but their impact was not always effective. Coordination

with other donors was maintained and the satisfactory integration of funding sources achieved. Performance indicators were, in general, adequate.

For most project components, that were not revised, the SAR implementation plan proved reasonable. The scale of cost variations, however, suggests that the costs for some project components could not or were not accurately assessed.

7.2 Supervision:

The Bank's supervision performance was **satisfactory**. The Bank undertook 26 supervision missions during the ten year implementation period. The first ten supervision missions, June 1990 - March 1993, covered both PRP and this project. On average, there were between 2 to 3 supervision missions per year but there were no missions between February 1996 and April 1997, when there was no on-going construction activities. There was no Mid-Term Review for this project.

Project supervision totaled 154.5 staff weeks, i.e., about 15 staff weeks per year. It is evident from the comprehensive aide memoires that supervision was thorough and compliance with the DCA's covenants monitored. The Bank's activities during supervision included assistance with the identification of potential problems, submission of suggestions and provision of guidance to the implementing agencies for proactive or corrective actions or improvements to the project. **The Bank's dialogue with the Borrower was a contributory factor to the change in government policy which resulted in the re-focusing of the project towards privatization.**

The Bank responded promptly to requests for amendments or extensions to the project and also assisted with the preparation of implementation programs for new components. There was rigorous follow-up on agreed actions and the Bank was firm with respect to compliance with the DCA. The Bank monitored the impact of components and took appropriate action, when necessary. For example, when the Bank's assessed that there was little benefit from management TA, the program was discontinued and emphasis given to changing the institutional framework for the sector.

The Bank maintained a close and generally harmonious dialogue with the Borrower, the implementing agencies and the other co-financiers and regularly attended THA's annual donor conferences.

During the ten years of project implementation, there were three different task managers and a number of changes in the composition of the supervision team. The continuity of supervision was maintained as all missions included, at least, one member from the previous mission. The supervision skill mix was too limited; on eight out of the nine missions, September 1993 - July 1997, the team was limited to a Port Engineer, although many issues were outside engineering, e.g., commercialization, port operations and customs procedures.

7.3 Overall Bank performance:

On the basis of the ratings given to the Bank's lending and supervision performance, the overall Bank performance is rated as **satisfactory**.

Borrower

7.4 Preparation:

Given the close dialogue and collaboration between the Bank and the Borrower (including the implementing agencies), the assessment made of the Bank's performance, is equally valid for the borrower. The Borrower's performance at preparation is, therefore, also rated **satisfactory**.

7.5 Government implementation performance:

The Government's performance during implementation was **satisfactory**. The Government demonstrated a strong commitment to the project's objectives and took the initiative to introduce amendments to the DCA that substantially enhanced the project. When it became evident that its existing policies would not yield the desired results, the Government acted decisively and revised its policy toward the public sector's operational activities and initiated the privatization process. Despite pressure, the Government maintained its commitment to the leasing of the container terminal.

7.6 Implementing Agency:

Most of the project was implemented by THA, through the PCU. During the initial stages of the project, the PCU's performance was inadequate but, following the attachment of TA and strengthening with local professionals (who received appropriate training), the PCU, and THA as the implementing agency, performed satisfactorily. The comprehensive quarterly reports provided a sound basis for project monitoring. Audit reports were submitted on time, and the DCA covenants were, in general, met. Whenever necessary, THA took the initiative to coordinate the components of the other implementing agencies. THA's performance in the financial management of the entire project was satisfactory. THA was also effective in undertaking studies that provided useful information for project decision-making. Counterpart funding was never an issue. However, THA was unable to resolve a number of issues, particularly with respect to human resource management (e.g. staff discipline, morale, motivation) and industrial relations, which had a negative impact on project outcomes.

The TRA was able to implement all its components although one contract (Mapato House) resulted in time-consuming disbursement problems caused by an unnecessarily complex contract and the unfamiliarity of the Engineer with World Bank procedures.

PSRC managed the privatization of the container terminal satisfactorily.

Since all project components were implemented and satisfactorily completed, the performance of the implementing agencies is rated **satisfactory**.

7.7 Overall Borrower performance:

On the basis of the foregoing, the overall borrower performance was satisfactory.

8. Lessons Learned

On the basis of the foregoing, the project provides the following key lessons:

- a) Raising port service levels to international standards is generally not achievable within the public sector framework. An appropriate institutional framework, involving private sector participation in operational activities, is essential for the sustainable improvement of the port system. If there is no domestic competition in the sector, regional competition and/or well-designed concession agreements with an appropriate regulatory authority will protect the public interest.
- b) The implementation of a divestiture program should be undertaken by an institution not related to the enterprise and the privatization policy should be central to the macro-economic policy framework. This ensures a more objective approach to the divestiture and provides the process with appropriate political backing.
- c) A flexible attitude to project design in the light of changing circumstances or project performance prevents the waste of resources on components with negligible impact and facilitates the re-allocation of resources to more critical investments. This project is a good example of where a flexible approach to design substantively benefited the final outcome of a project through, for example,

the upgrading of the KOJ.

d) While simple projects may be preferable, sometimes, as in this case, a complex project is essential. With a large number of contracts (44 contracts financed by IDA plus contracts financed by other donors), a large number of co-financiers, and a long project duration, an adequately staffed and well trained coordination unit and an efficient record and documentation system is essential for efficient project management. While coordination of this project was more than adequate, the system for project documentation was somewhat less than ideal. This should be given appropriate consideration during project design.

9. Partner Comments

(a) Borrower/implementing agency:

PORT COMPONENT

Introduction

The Port Modernization Project II was formed owing to the Borrowers Willingness to undertake major reforms in the transport sector to address the shortcomings of the sector. This was after the response of various donors who were called upon when the Borrower presented a document called "Programme for Transport Sector Recovery". The Borrower seeing the magnitude of investment set aside over 20% of the total development budget expenditure to the transport sector beginning 1989. The Port of Dar es Salaam being the largest earner of foreign exchange in the country and contributes almost 61% of the total throughput and as such its modernization was of paramount importance to users. Cr. 2095-TA was second to a major programme, which started in 1984 under Port Rehabilitation Project (Cr. 1536-TA)

Integrated Performance

The project's aim was to modernize the infrastructure of the port, expand container handling capacity, and improve equipment maintenance and Management Skills. All of these were very successful.

In general the project objectives were all met. Quoting the January 10th, 1990 staff appraisal report, the aim of the project was to increase the efficiency and cost effectiveness of the port operations to all its users by expanding the physical, managerial and operational capabilities of the Borrower to meet the traffic from Tanzania and its neighboring landlocked countries.

On the whole the project has met its aim, the Container Terminal has been expanded and can handle double the amount of cargo that was handled before the project. Staff including highly qualified Managers, equipment availability has increased through good maintenance arrangements and spare parts procurement the revenue collection has been enhanced, the commercially oriented Management has given way to concessioning of units in the ports starting with the Container Terminal and Grain Terminal. Most of all departments have got computers, and have improved their management control and decisions. Though the link to the neighboring countries has been improved, the failure of traffic growth as expected has been affected by prolonged wars and conflicts in the ZBR region which has caused almost stagnation of the area's economic development.

Going through the Staff Appraisal Report, one will find that quite a number of components could not be carried out as planned, these were the Lighterage Wharf Paving and utilities and Belgian Wharf Rehabilitation. However, late in the life of the credit, sometime in May 1997, it becomes necessary to revise the scope of the project, by including an extra component for the Customs through the Tanzania Revenue Authority. This was meant for rehabilitation and strengthening of Border Stations and their computerization including refurbishment of the Customs Head Office. This led to the first credit extension of two years to June 1999. However, one further extension was inevitable to allow for completion of the

components in light of the new country oil liberalization programme which directed an upgrade of the Kurasini Oil Jetty in order to be able to handle all refined white petroleum products, including Crude Oil, also the inclusion of an extra component to cover for the concessioning of the Container Terminal through the Parastatal Sector Reform Commission (PSRC). This further extension was to end on June 30th, 2000.

It should be noted here that during the first quarter of the life of the project, the Borrower had in place some of bilateral donors who had their own timetables for completion of their components. The last one was FINNIDA who completed in 1994. Though a little time later, NORAD came back for a further assistance to an extra Coastal Tanker Berth which was completed in 1998.

Achievement of Objectives and Results

Most of the physical objectives of the project were achieved except for a few components, which were not executed because of further studies to determine their viability.

- *Civil Works:* Improvements to the Container Terminal, Kurasini Inland Depot, Ubungu Inland Depot, the construction of Copper Depot, Road and Upgrading of the Kurasini Oil Jetty were all completed and successful.
- *Equipment:* New equipment procured for the general cargo funded by the IDA was procured and put to use.
- *Engineering Services and Studies:* Various Consultants were engaged in design and supervision of most of the components in the project plus a few studies carried out during the life of the project. The major one being the Port Development Study for 1994-2004. Project Co-ordination was no longer done by an expatriate unit formed during a previous project but a few individuals from the Engineering Department managed and coordinated the implementation of project under the guidance of the Director of Engineering who had the responsibility for project management, operation and co-ordination of various activities in the complex project.
- *Institutional Development:* During the course of implementation of this project there wasn't much that was improved by a few experts engaged during the initial years of the project before they left. There was same amount of technical assistance provided at the Container Terminal, Operations and Workshops by other bilateral donors including support and development of middle and upper management skills. However the results were very little to determine their input. Though currently one can see an improved statistical and DATA Collection and significant usage of computers improving the Management information systems.

Lessons Learned

- (i) For an integrated project of this size and complexity it was necessary to keep to the structure of the credit given rather than derailing management methods of the project by including other components literally outside the institutions co-ordinating capability. The Bank should have channeled the components to mother Ministries dealing with TRA and PSRC who could have been more instrumental in the decision making and process follow up by the Bank.
- (ii) In future project of this size the capabilities of that Project Coordination Unit (PCU), should not be reduced or thinned down as was the case in this project, rather it should have been strengthened and left specifically to deal with project matters, and not to be engaged in other projects to give them more time for co-ordination matters from the funded projects, to the Bank. At the time being the number of staff in the PCU considerably was reduced while the tasks expended far beyond their capabilities.

Bank Performance

Considering the almost 10 year life span of this project, the performance of the Bank has always been very good. Supervision Missions were carried out regularly and professionally. A common understanding always existed between the Borrower and the Bank and the problems that were encountered had a joint approach to being solved. This also led to a good understanding of revising the scope of the project as new factors emerged. Most revisions undertaken reduced the potential costs and time overruns in the subsequent inclusion of new components, which allowed maximum benefits within the project. The much awaited concessioning of the Container Terminal was completed before the end of this project.

Performance of Consultants, Contractors and Suppliers

Throughout the project's implementation to its completion, a resultant combination of assistance received from Consultants, Contractors and Suppliers made the objectives of the project be achieved on time and within estimated costs, even after various revisions by addition of extra components.

CUSTOMS COMPONENT

The World Bank Funded Customs Component of the Port Modernization Project had the following categories:

Civil Works carried out under the project

- Rehabilitation and improvement of the Customs part of Mapato House
- Rehabilitation and improvement of fifteen Customs Transit and Border Stations
- Rehabilitation and improvement of the Temporary Longroom accommodation at TRA HQ
- Rehabilitation of the Customs offices at the Dar es Salaam International Airport (DIA)

The following goods and equipment were supplied under the project

- Communication equipments for Transit and Border Stations
- Motor Vehicles and Motor Cycles for the Transit and Border Stations
- Assorted office furnitures for Mapato House
- Generators for Customs HQ, Customs Offices at DIA and for the Transit and Border Stations

Consultancy and Training

- Consultancy Services for the civil works
- Consultancy Services for the Supply and Installation of radio communication equipment
- Consultancy Services on Customs operations
- Training was provided to TRA staff on the World Bank Procurement Procedures, Ascyuda, etc.

Bank Performance

The Bank need to improve the time needed for issues requiring prior review and no objection. The Bank's supervision teams were very cooperative and provided constructive guidance and support. The Task Team Leader was very objective.

Relationship among TRA, W/B Co-Financiers and Other Partners

Financing of this component was 90% IDA and 10% TRA in terms of counterpart contribution

Banks Contribution Through the Project Life

The Bank's contribution through the Project Life has been very effective as almost all the equipment and partly training was financed by the Bank. The project was successfully completed

Project Contribution

The refurbished buildings provide a conducive working environment. Training and equipment provided under the project has increased the working efficiency and subsequently Government revenue. Rehabilitation of Transit/Border Stations and installation of communication equipment has tremendously increased the Transit traffic control capacity. This has reduced the loophole for Tax evasion.

Conclusion

The Project has successfully achieved the following preset objectives:-

- infrastructure improvement
- improvement of transit traffic control
- improve documentation and customs operation through ASYCUDA

PRIVATIZATION COMPONENT

The credit funded the transaction consultants, CPCS Transcom of Canada, to assist the Presidential Parastatal Sector Reform Commission (PSRC) in privatizing the Container Terminal at the Port of Dar es Salaam under Tanzanian Harbours Authority (THA).

In identifying the transaction consultants for this project, PSRC followed World Bank procurement guidelines for the selection of consultants. During the privatization process PSRC agreed with the World Bank on the privatization process to be followed and adhered to that process to ensure transparency and equitable treatment of interested parties. PSRC consulted with the Bank at key milestones throughout the privatization process.

The use of transaction consultants was advantageous for a number of reasons, as follows:

1. Their involvement added credibility to the transaction in the eyes of the private sector
2. Their knowledge of the sector and the private operators within it was beneficial to the process and contributed to its successful outcome
3. Their preparation of various documents saved considerable time

From the PSRC perspective, the World Bank was responsive and cooperative. The task manager provided timely feedback, and made valuable contributions to the process while at the same time accommodating the interests and concerns of the Government of Tanzania.

PSRC believes that the Government disbursed the payments to the transactions consultants in an appropriate manner. The Government set the privatization strategy for the Container Terminal and ensured its implementation.

The objective of the project was achieved. The private operator for the Container terminal was identified after having followed a competitive process. In conclusion, PSRC considers the project to have been successful

(b) Cofinanciers:

A requests for comments was sent to the co-financing institutions, but no comments were received

(c) Other partners (NGOs/private sector):

None

10. Additional Information

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
Container Handling Productivity SSG moves/hour	20	13.0
Import Container Dwell Time (days)	18	26
Container Equipment Availability (%)	80	84
Container ship service time (days)	1.57	1.10

Output Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate	
Tanzania traffic (million tonnes)	1.20 (1995)	1.19 (1995)	1.59 (1999)
Transit traffic (million tonnes)	1.74 (1995)	0.89 (1995)	0.57 (1999)
Total dry cargo (million tonnes)	3.35 (1997)	1.83 (1997)	2.17 (1999)
Container traffic ('000 TEU)	152 (1997)	103 (1997)	108 (1999)

¹ End of project

The Project was prepared in 1988 and no log frame analysis/matrix was prepared.

Identified Project Risks (SAR):

Project Risk	Outcome
Traffic growth lower than expected	Tanzania generated port traffic was almost exactly on the SAR forecast, but transit traffic declined very substantially during implementation as the result of (a) the opening of alternative routes in Southern Africa; and (b) the civil strife in Central Africa.
Project costs higher and/or implementation delayed	in general, project costs were lower than estimated and the project implemented a number of components which had not been initially envisaged. While there were some project delays, they were not substantial.
Operational improvements fail to materialize	The capacity of the container terminal was expanded substantially by the Project, and this allowed the increased container throughput without major congestion. Operational productivity in the port generally increased much less than expected and cargo service levels showed relatively little improvement.

Annex 2. Project Costs and Financing

Project Cost by Component (in US\$ million equivalent)

Project Cost By Component	Appraisal Estimate US\$ million	Actual/Latest Estimate US\$ million	Percentage of Appraisal
Civil Works (Port)	50.50	90.68	180
Equipment (Port)	21.70	20.75	96
Consultant's Services and TA (Port)	21.46	10.78	50
Consultant's Services and TA (Customs and PSRC)	2.00	0.78	39
Equipment (Customs)	0.41	1.11	261
Civil Works (Customs)	0.00	2.75	
Total Baseline Cost	96.07	126.85	
Physical Contingencies	7.33		
Price Contingencies	18.90		
Total Project Costs	122.30	126.85	
Total Financing Required	122.30	126.85	

Project Costs by Procurement Arrangements (Appraisal Estimate) (US\$ million equivalent)

Expenditure Category	ICB	Procurement Method		N.B.F.	Total Cost
		NCB	Other²		
1. Works	23.80 (17.50)	0.00 (0.00)	0.00 (0.00)	41.70 (0.00)	65.50 (17.50)
2. Goods	7.40 (7.40)	0.00 (0.00)	1.20 (1.20)	18.90 (0.00)	27.50 (8.60)
3. Services (Engineering Services, Studies and TA)	0.00 (0.00)	0.00 (0.00)	10.90 (10.90)	18.40 (0.00)	29.30 (10.90)
Total	31.20 (24.90)	0.00 (0.00)	12.10 (12.10)	79.00 (0.00)	122.30 (37.00)

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US\$ million equivalent)

Expenditure Category	ICB	Procurement Method		N.B.F.	Total Cost
		NCB	Other²		
1. Works	23.04 (19.60)	2.91 (2.75)	0.00 (0.00)	67.64 (0.00)	93.59 (22.35)
2. Goods	4.77 (4.77)	0.26 (0.26)	0.06 (0.06)	16.77 (0.00)	21.86 (5.09)
3. Services (Engineering Services, Studies and TA)	0.00 (0.00)	0.00 (0.00)	9.66 (9.66)	1.90 (0.00)	11.56 (9.66)
Total	27.81 (24.37)	3.17 (3.01)	9.72 (9.72)	86.31 (0.00)	127.01 (37.10)

^{1/} Figures in parenthesis are the amounts to be financed by the IDA Credit. All costs include contingencies.

^{2/} Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Project Financing by Component (in US\$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	IDA	Govt.	CoF.	IDA	Govt.	CoF.	IDA	Govt.	CoF.
Civil Works (Port)	17.55	17.59	30.36	19.60	22.36	48.52	111.7	127.1	159.8
Equipment (Port)	8.22	8.69	10.18	3.98	0.00	16.77	48.4	0.0	164.7
Consultants' Services / TA (Port)	8.46	2.48	15.97	8.88	0.00	1.90	105.0	0.0	11.9
Consultants' Services / TA (Customs)	2.43	0.00	0.00	0.78	0.00	0.00	32.1	0.0	0.0
Equipment (Customs)	0.41	0.00	0.00	1.11	0.00	0.00	270.7	0.0	0.0
Civil Works (Customs)	0.00	0.00	0.00	2.75	0.16	0.00	0.0	0.0	0.0

Annex 3: Economic Costs and Benefits

Introduction

The project was designed to increase the capacity and service performance of the port to cater for increasing traffic. In particular, a rapid growth in container traffic was expected from both economic growth in the port's hinterland, and a substantial increase in the containerization of existing general cargo. Without the project, the effective capacity of the port would have been insufficient to accommodate the expected flow of containers which would have resulted in either: (a) container traffic diverting to other ports; or (b) cargo continuing to be shipped as break-bulk cargo. The major constraint to container handling capacity was not the berth or crane capacity, but rather the capacity of the stacking yards to accommodate the number of stored containers.

During the implementation of the project, two major additional components were added which had rather different impacts upon the port and the level of overall economic benefits:

- (a) The dredging and straightening of the entrance channel which has enabled the THA to provide 24 hour access to the port, thus eliminating ship delays from the lack of access during night hours and during low tides. In addition, it provides the opportunity for shipping lines to utilize larger vessels, thus reducing overall shipping costs.
- (b) The improvement of the Kurasini Oil Jetty (KOJ) which substantially increases Tanzania's capacity to import refined petroleum products. This increase in capacity has enabled Tanzania to liberalize the petroleum sector, withdraw subsidies from the inefficient TIPER Refinery and rely on the import of refined petroleum products, at significantly lower cost.

The Staff Appraisal Report (SAR) estimated that the overall economic rate of return (ERR) from the Project would be approximately 20%, and identified traffic growth as the primary risk to economic benefits.

Ex-Post Economic Evaluation

The ex-post economic evaluation has broadly followed the same methodology used in the SAR, though it has been modified to take into account the changed configuration of investments and thus economic benefits. The evaluation has adopted a very conservative approach to the estimation of benefits and the overall economic rate of return has been significantly and possibly substantially underestimated, for example,

- the 1999 traffic level is assumed to remain constant throughout the remaining life of the project;
- no benefits have been assumed from the leasing of the container terminal to the private sector although the private operator is contracted to increase, very substantially, handling productivity and service standards;
- no economic benefits have been assumed from the inland movement of transit containers, although both road and rail (TRC and TAZARA) derive substantial revenues from this traffic;
- no benefits have been assumed from the port's ability to accommodate larger ships with lower unit costs which would eventually be translated into some reduction in sea freight tariffs.

The privatization of the operations of the container terminal (supported by the Project) should have a major positive impact upon the level of port performance and thus economic benefits. The successful concessioning of the terminal is now to be followed by the privatization of THA's other operational activities. However, no benefits have been attributed to the project as, conceptually, it would have been possible to concession the port without the investments made under this project.

Port Traffic

The forecast and actual levels of port traffic are shown in Table 1

Table 1: Expected and Actual Dry Cargo Traffic - Dar es Salaam Port
(‘000 tons or TEU)

	1988	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
SAR											
Total Traffic	2056	2145	2270	2433	2599	2761	2945	3141	3351	n.a.	n.a.
Conventional	1382	1300	1281	1262	1188	1208	1232	1252	1267	n.a.	n.a.
Container	674	845	989	1171	1411	1553	1713	1889	2084	n.a.	n.a.
Containers	48152	62075	72441	85733	103282	113589	125182	137958	152038	n.a.	n.a.
ACTUAL											
Total Traffic	2056	1884	1894	2346	2453	2062	2084	1664	1836	2197	2166
Conventional	1382	1142	1054	1498	1364	1105	921	551	710	987	1120
Container	674	742	840	848	1089	957	1163	1113	1126	1210	1046
Containers	48152	64594	76699	86188	97755	90450	98559	98906	103461	109528	108158

Total dry cargo traffic in 1997 was only 55% of the SAR forecast level: a 63% increase in total traffic had been forecast, but there was an 11% fall in traffic. Containerized traffic increased but, in tonnage terms, only to about half the expected level although the total number of TEU increased rather faster.

The major differences between the forecast and actual levels of port traffic can be almost entirely explained by the impact of the geopolitical developments in Eastern and Southern Africa and their resultant impact on the level and distribution of transit traffic, Table 2.

Table 2: Traffic Distribution - Dar es Salaam Port
(‘000 tonnes or TEU)

		1991	1992	1993	1994	1995	1996	1997	1998	1999
Tanzania										
Total Traffic:	SAR	982	1037	1088	1143	1202				
	Actual	819	967	1169	1047	1193	956	1241	1265	1591
TEU	SAR	37928	40857	44086	48330	53030				
	Actual	33482	40534	43588	41577	47403	47825	53214	55613	55888
Transit										
Total Traffic:	SAR	1288	1396	1511	1618	1743				
	Actual	1075	1379	1284	1024	892	708	595	554	575
TEU	SAR	34513	44876	59196	65259	72152				
	Actual	27877	26437	30278	27576	28641	26071	22660	18882	22753

In 1995, the last year for detailed SAR forecasts, Tanzanian traffic was close to the SAR forecast levels: 99% of the forecast level for total dry cargo traffic and 89% for container traffic. Total transit traffic, on the other hand, was 51% of the forecast level and container traffic was even lower, at 40% of the SAR forecast.

Economic Analysis

Most of the same basic parameters were used in the ex-post economic evaluation of the project, as were employed in the SAR. However, a number of changes were introduced to reflect the changes in the design of the project, delays in implementation, and the reaction of the shipping lines to port congestion:

- Reduced ship delays from the deepening and straightening of the entrance channels which now allows 24 hour access;
- Cost savings from the importation of refined petroleum products rather than crude oil to the small, inefficient and high cost TIPER refinery;
- Actual surcharge imposed by the shipping lines on Dar es Salaam freight traffic, rather than the more hypothetical estimate based on simulated ship delays and distribution of the additional costs to Dar es Salaam traffic;
- No benefits to cargo handled on the conventional cargo berths: on a before - after basis, there was no sustained improvement in productivity; and
- No benefits to reduced container dwell time: on a before - after basis, there was no sustained reduction in average container dwell time. Given the additional processing requirements introduced by Tanzania Customs, the dwell times could have been even longer “without” the project and the reduction in the customs clearance processing time.

It has been assumed in the analysis that the major container handling equipment has a life of 15 years with no salvage value, the civil works of the berths have a 20 year life with no residual value, and the dredging has a 50 year life with normal maintenance dredging.

In the analysis, it was assumed that, in the "without" project scenario, transit rather than domestic containers would divert to other ports. In view of the increased number of ports open to transit traffic (particularly Nacala, Beira and Durban), this assumption appears realistic. The container capacity in the "without" scenario is broadly sufficient for the level of Tanzanian traffic. To calculate the capacity of the stacking yards, the actual container dwell times have been used.

Costs and benefits have been based on their impact on the Tanzanian national economy; rather different results would be obtained if either regional or global economic benefits had been calculated. The national costs and benefits are considered to be the most appropriate for the analysis. Very much higher benefits would have been obtained, in future years, if the container handling productivity rates, included in the recent lease with the private container terminal operator, were adopted. However, the private operator has yet to demonstrate that these target levels can be attained and sustained. Therefore, the level of benefits in 1999 has been assumed to remain constant until the end of the project period in 2011.

Economic Returns

The SAR estimated that the project investment would generate an economic rate of return (ERR) of 20% and a net present value (NPV) of US\$42.7 million at a 10% discount rate. The estimated actual ERR is rather lower than the forecast return, 13.3%, with a NPV (10%) of US\$20.76 million.

Economic Analysis: Port Modernization Project

	COSTS					BENEFITS				Net	
	Investment		O&M		Total	Container Traffic		KOJ	Channel	Total	Economic
	Civil Works	Equipment	TA	Costs	Costs	Diverted	Surcharge	Jetty	Dredging	Benefits	Benefits
1990	26.43	0.00	0.00	0.00	26.43					0.00	-26.43
1991	13.54	0.00	0.12	0.53	14.19					0.00	-14.19
1992	1.69	0.39	1.04	0.80	3.92					0.00	-3.92
1993	1.92	0.07	5.19	0.86	8.04					0.00	-8.04
1994	7.58	0.27	2.29	0.91	11.05	2.08	5.48			7.56	-3.49
1995	0.79	0.10	1.05	1.08	3.02	8.87	6.08			14.96	11.93
1996	0.00	19.11	0.02	1.11	20.24	6.03	7.47			13.50	-6.74
1997	5.85	0.15	0.60	2.63	9.23	5.28	8.22			13.50	4.26
1998	9.98	0.06	0.50	2.76	13.30	6.25	8.65			14.90	1.59
1999	7.92	0.14	0.12	2.97	11.15	7.84	7.15		1.26	16.25	5.11
2000	5.56	0.08	0.11	3.14	8.89	7.84	7.15	8.25	2.52	25.76	16.88
2001				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2002				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2003				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2004				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2005				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2006				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2007				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2008				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2009				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2010				3.25	3.25	7.84	7.15	8.25	2.52	25.76	22.51
2011	-16.71			3.25	-13.46	7.84	7.15	8.25	2.52	25.76	39.22
										IRR	13.3 %
										NPV	20.76

1. Economic costs are net of taxes and local costs are adjusted by a SCF of 0.8
2. Rehabilitation of berths and pavement extension are assumed to have a life of 20 years, dredging a life of 50 years
3. Annual maintenance of civil works is 2% of capital cost; maintenance and operations of equipment is 5% of capital cost
4. Container traffic in excess of capacity are assumed to be in transit. Economic loss to Tanzania US\$250/TEU containers
5. It is assumed that the initial surcharge of US\$90/TEU would be increased to US\$150/TEU with the continuing congestion
6. Annual crude oil imports averaged 0.55 million tonnes. Savings from the import of refined products US\$15/tonne
7. Waiting time savings based on existing ship characteristics.

While the rates of return are rather lower than the forecasts, they are still satisfactory especially when the major changes in regional traffic flows are taken into account. Moreover, as detailed previously, a conservative approach has been adopted toward the estimation of the benefits. More particularly, the project has provided the port infrastructure necessary to allow private operators to provide international levels of port services to Tanzania and its hinterland. This will remove one of the most significant single constraints to economic growth and development.

Ex-Post Financial Analysis

The analysis of the financial returns from the project to the THA adopts the same broad framework as the economic analysis and the results are similarly conservatively estimated. There are, however, some differences in the assumptions used for the analysis:

- the avoidable financial operating costs for the container terminal have been estimated from the financial model developed for the concessioning of the terminal. 1998 has been adopted as the base year for the analysis and an incremental cost of US\$66/TEU has been calculated. This has been applied to all containers whether loaded, empty, FCL or LCL.
- Only direct revenue benefits to THA have been used in the analysis. Improved service levels to shippers and shipping lines and the THA's potential to increase port charges have been generally excluded from the analysis. The exception is the deepening and straightening of the entrance channel for which it has been assumed that THA will be able to adjust the port dues to reflect the major improvement in accessibility and reduced ship delays.
- Container storage charges are a major source of revenue to the THA. However, it is assumed in the "without" project situation that most of the diverted containers would be transit containers to third countries. In the "with" project situation, these transit containers are subject to long delays in the port and could be subject to significant storage penalties (US\$20/day after 15 days free time). However, the THA has made major concessions to transit traffic, and it has been assumed that no storage charges are, in fact, raised. The exclusion of all storage charges on the additional container traffic is probably a significant underestimation of the total financial benefits.
- It is assumed that without the investment, petroleum flows to Zambia would be seriously affected, particularly in view of the very poor condition of the Single Buoy Mooring and the sub-marine pipeline to the Tazama depot. Without the investment, a loss of revenue equivalent of US\$0.85/tonne would be incurred on a total flow of approximately 500,000 tonnes.

Financial Results

The SAR estimated the project's financial rate of return at 14%. The ex-post evaluation estimates the financial return at 7.5%, substantially lower than the SAR estimate, but very consistent with the comparative reduction in the economic rate of return, from 20% to 13%. The reduction in the financial return cannot be considered very surprising, given the substantially reduced traffic flow to that forecast in the SAR.

Financial Analysis: Tanzania Port Modernization Project
(US\$ million)

	-----Investment-----				O&M	Total	-----Additional Revenue-----				Net Cash
	Civil Works	Equipment	TA	Total	Costs	Costs	TEU	POL	Channel	Total	Flow
1990	27.80	0.00	0.00	27.80		27.80					-27.80
1991	13.90	0.00	0.12	14.02		14.02					-14.02
1992	1.69	0.39	1.04	3.12		3.12					-3.12
1993	1.92	0.07	5.19	7.18		7.18					-7.18
1994	7.58	0.27	2.29	10.14	1.24	11.38	4.11			4.11	-7.27
1995	0.79	0.10	1.05	1.94	3.32	5.26	15.64			15.64	10.38
1996	0.00	19.11	0.02	19.13	2.66	21.79	11.12			11.12	-10.67
1997	5.85	0.15	0.60	6.60	2.58	9.18	10.05			10.05	0.88
1998	11.05	0.06	0.50	11.61	2.68	14.29	8.68			8.68	-5.61
1999	8.52	0.14	0.12	8.78	3.50	12.28	14.34			14.34	2.05
2000	5.28	0.08	0.11	5.47	3.50	8.97	14.34	0.43		14.76	5.79
2001					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2002					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2003					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2004					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2005					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2006					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2007					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2008					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2009					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2010					3.50	3.50	14.34	0.43	2.52	17.28	13.78
2011	-18.01			-18.01	3.50	-14.51	14.34	0.43	2.52	17.28	31.79
IRR											7.5 %
NPV(10%)											-13.81
1. Project costs for THA only											
2. O&M costs taken from the variable operating and overhead cost analysis Transcom Study											

However, despite the lower than forecast financial return on the project, THA remains in a reasonably sound financial position.

Table 3: THA Income Statement
(Tsh billion)

	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Operating revenue	11.14	12.44	14.08	28.09	37.89	42.07	49.11	44.06	53.21	55.37
Operating expenditure	5.73	11.51	17.02	21.68	29.91	41.68	41.99	38.68	46.03	47.56
Surplus from operations	5.41	0.94	(2.94)	6.41	7.98	0.39	7.11	5.38	7.18	7.81
Non-operating revenue	0.64	3.36	1.96	2.03	1.81	3.10	4.08	2.21	1.59	2.51
Gain on exchange rate	(1.99)	(2.35)	(2.19)	(4.40)	(5.21)	(3.80)			(0.15)	(2.63)
Disposal of fixed assets				(0.15)				(0.07)	*	*
Surplus before tax and exceptional items	4.06	1.95	(3.17)	3.88	4.57	(0.31)	11.20	7.52	8.67	7.69
Exceptional item							(6.84)	(1.19)	(1.14)	0
Provision for tax	2.03	0.97	0.0	1.36	4.43	2.37	1.53	2.28	1.20	2.70
Surplus after tax	3.30	0.97	(3.17)	2.52	0.14	(2.68)	2.83	4.06	6.33	4.99

Financial performance has stabilized, after a period of wide fluctuations in the early 1990's and significant retrenchment financing in FY96 and FY97. Since FY95, the surplus from operations has stabilized at the equivalent of approximately US\$11 million. This has been sufficient to service THA's long term loans and maintain a stable cash flow position. THA should not need to make further major investments in the short-medium term in basic infrastructure and investment in equipment should now increasingly become the responsibility of private sector operators.

While profitable, the THA is substantially less profitable than was projected in the SAR. The operating margin (operating surplus/operating revenue) has fallen from 50% in FY89 and FY90, to around 13% since 1995 (the SAR forecast an operating margin of about 38%). The US\$ value of THA's revenue has been constrained by the stagnation in traffic, while costs have increased significantly. Depreciation and financing costs have risen substantially as a consequence of the investments/loans made through the project but, in addition, staff costs have increased significantly, from about 33% of operating costs in FY91 to 39% in FY99, reflecting increased salary levels as the total labor force has declined. An operating surplus of US\$40 million was projected for FY97, and a operating surplus of US\$ 11 million was generated.

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle Month/Year	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating	
	Count	Specialty	Implementation Progress	Development Objective
Identification/Preparation Feb. 5-Feb. 24, 1989*	3	Transport Economist, Financial Analyst, Port Engineer.		
April 26-May 9, 1989*	2	Economist, Financial Analyst, .		
Appraisal/Negotiation Jun. 13-Jun. 30, 1989*	3	Transport Economist, Financial Analyst, Port Engineer.		
Supervision Jun. 4-Jun. 11, 1990*	1	Port Engineer.	HS	HS
Oct. 15-Oct. 20, 1990*	2	Financial Analyst, Port Engineer.	HS	HS
Nov. 10-Nov. 17, 1990*	1	Financial Analyst.	S	S
Jan. 28-Feb. 9, 1991*	1	Financial Analyst.	S	S
Apr. 22-Apr. 25, 1991*	2	Financial Analyst, Port Engineer.	S	S
Oct. 5-Oct. 20, 1991*	3	Financial Analyst, Port Engineer, Procurement Specialist.	S	S
Feb. 3-Feb. 16, 1992*	3	Financial Analyst, Port Engineer, Operations Assistant.	S	S
Jul. 2-Jul. 18, 1992*	4	2 Financial Analysts, Port Engineer, Procurement Specialist.	S	S
Nov. 8-Nov. 21, 1992*	3	2 Financial Analysts, Port Engineer.	S	S
Mar. 8-Mar. 31, 1993*	3	Financial Analyst, Operations Officer, Port Engineer.	S	S
Jul. 5-Jul. 9, 1993	2	Financial Analyst, Port Engineer.	S	S
Sept. 20-Sept. 24, 1993	1	Port Engineer.	S	S
Jan. 26-Feb. 8, 1994	1	Port Engineer.	S	S
Jun. 2-Jun. 8, 1994	1	Port Engineer.	S	S
Oct. 17-Oct. 26 & Oct. 30-Nov. 2, 1994	1	Port Engineer.	S	S
Jan. 25-Feb. 4, 1995	1	Port Engineer.	S	S
May 31-Jun. 6, 1995	1	Port Engineer.	S	S
Feb. 1-Feb. 8, 1996	1	Port Engineer	S	S
Apr. 7-Apr. 11 & Apr. 21-Apr. 23, 1997	2	Transport Economist, Port Engineer	S	S
Jul. 5-Jul. 10, 1997	1	Port Engineer	S	S
Feb. 3-Feb. 13, 1998	2	Transport Economist, Port Engineer	S	S

May 27-Jun. 8, 1998	2	Transport Economist, Port Engineer	S	S
Sept. 17-Sept. 25, 1998	2	Transport Economist, Port Engineer (Consultant).	S	S
Feb. 16-Feb. 19, 1999	1	Transport Economist.	S	S
Oct. 6-Oct. 12, 1999	1	Transport Economist.	S	S
ICR May 8-May 18, 2000	2	Transport Economist, Port Consultant.	S	S

* Due to the overlap between the "Port Rehabilitation Project" (Cr. 1536-TA) and the "Port Modernization Project" (Cr. 2095-TA), these missions have addressed both above projects.

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US\$ (,000)
Identification/Preparation	10.3	26.2
Appraisal/Negotiation	21.3	55.5
Supervision	155.5	562.8
ICR	3.0	38.0
Total	190.1	682.5

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	Rating				
☐ Macro policies	☐ H	☐ SU	☐ M	☐ N	☒ NA
☐ Sector Policies	☐ H	☒ SU	☐ M	☐ N	☐ NA
☐ Physical	☐ H	☒ SU	☐ M	☐ N	☐ NA
☐ Financial	☐ H	☐ SU	☒ M	☐ N	☐ NA
☐ Institutional Development	☐ H	☒ SU	☐ M	☐ N	☐ NA
☐ Environmental	☐ H	☐ SU	☒ M	☐ N	☐ NA
 Social					
☐ Poverty Reduction	☐ H	☐ SU	☐ M	☐ N	☒ NA
☐ Gender	☐ H	☐ SU	☐ M	☐ N	☒ NA
☐ Other (Please specify)	☐ H	☐ SU	☐ M	☐ N	☒ NA
☐ Private sector development	☐ H	☒ SU	☐ M	☐ N	☐ NA
☐ Public sector management	☐ H	☐ SU	☐ M	☒ N	☐ NA
☐ Other (Please specify)	☐ H	☐ SU	☐ M	☐ N	☒ NA

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance

Rating

☒ Lending

☐ HS ☒ S ☐ U ☐ HU

☒ Supervision

☐ HS ☒ S ☐ U ☐ HU

☒ Overall

☐ HS ☒ S ☐ U ☐ HU

6.2 Borrower performance

Rating

☒ Preparation

☐ HS ☒ S ☐ U ☐ HU

☒ Government implementation performance

☐ HS ☒ S ☐ U ☐ HU

☒ Implementation agency performance

☐ HS ☒ S ☐ U ☐ HU

☒ Overall

☐ HS ☒ S ☐ U ☐ HU

Annex 7. List of Supporting Documents

1. PROJECT COMPLETION REPORT, Tanzania Port Rehabilitation Project (Cr. 1536-TA), January 17, 1995
2. STAFF APPRAISAL REPORT, TANZANIA PORT MODERNIZATION PROJECT II, JANUARY 10, 1990
3. Aide Memoire (Project Final Supervision Mission), May 2000
4. IRR calculations.