

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: AB2935

Project Name	Central Transport Corridor Repeater Project
Region	AFRICA
Sector	General transportation sector (47%);Roads and highways (38%);Aviation (15%)
Project ID	P103633
Borrower(s)	REPUBLIC OF TANZANIA
Implementing Agency	
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Environment Category	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI <input type="checkbox"/>
Date PID Prepared	November 21, 2007
Date of Appraisal Authorization	November 14, 2007
Date of Board Approval	January 24, 2008

1. Country and Sector Background

1. State of the Transport Sector: Tanzania has made significant strides in its transport sector reform program in the last decade. A second generation Road Fund was established in 1999. In FY 05/06 it disbursed \$58m equivalent, to both the national and local government road agencies, which is about 40% of total maintenance requirement for Tanzania's road network. In 2000, Tanzania Roads Agency (TANROADS) was created to manage the 29,000 km of national roads. Since then, the condition of these roads has significantly improved from 30% in

poor condition in 2000 to the current 16%. A Surface and Marine Transport Regulatory Authority (SUMATRA) has also been created and commenced operations in 2005. In 2006, the former Ministries of Works and Transport were merged into a new Ministry of Infrastructure Development (MOID), with the prospect of improved sector oversight, strategic planning and monitoring capability.

2. Key issues that need to be addressed in the transport sector in the short to medium term are: (i) agreement on a sector investment program – GoT and Development Partners (DP) are currently working to arrive at such program; (ii) further reforms that are needed to improve service delivery in the road sector including the preparation and enactment of a suitable Roads Act and legislation to increase the autonomy of TANROADS; (iii) increased funding for road maintenance to achieve an acceptable level of service i.e. 100% coverage; (iv) adoption of a conducive Road Safety Policy and Strategy; (v) creation of adequate urban transport management capacity to deal with the rapidly increasing traffic congestion in DSM; (vi) increased private sector involvement in the financing and management of roads through PPP arrangements; and (vii) concluding of the concessioning of TRC.

3. Progress in the implementation of the Central Transport Corridor Project (CTCP) The CTCP credit of \$122m was approved by the Bank on April 29, 2004 and became effective on August 27, 2004. The project implementation is satisfactory and is expected to achieve the development objectives. While most of the components of CTCP have so far been timely implemented, delays have been encountered regarding the concessioning of TRC. This was originally planned to be achieved in June 2005. Currently, negotiations with the preferred bidder are on-going and it expected that these will be concluded in April 2007.

2. Objectives

4. The project development objective (PDO) is to support Tanzania's economic growth by providing enhanced transport facilities which are reliable and cost effective, in line with MKUKUTA and the National Transport Policy and Strategy. Following are the key monitoring indicators for the achievement of the PDO: (i) reduction of rush hour travel time of public transport users between Ubungu and the Central Business District (CBD) in Dar es Salaam; (ii) reduced average vehicle operating cost on the Korogwe to Same trunk road; and (iii) satisfactory rating of Zanzibar airport facilities by both airlines and passengers (to be defined at appraisal).

3. Rationale for Bank Involvement

5. As explained above, Tanzania requires about US\$ 300 million equivalent per annum from Development Partners (DP) to finance its sector investment program. The number of DP in the sector has recently shrunk considerably with some of the DPs moving to general budget support (GBS) and others (particularly smaller bi-lateral donors) having moved out of the sector. Currently the main DPs in the sector are: EC, DANIDA, NORAD, JICA/JBIC, MCC, ADB, and WB. Given the commitments of the other DP in the sector WB is required to contribute about US\$ 80 million per annum over the coming years, up from the average of about US\$ 18 million from FY00 – FY07.

6. The “parent” of this project (the Central Transport Corridor Project, CTCP) is performing well. Disbursement, which currently stands at 50% has recently picked up (disbursement in FY07/08 was US\$ 27 million), and it is expected that the balance of the credit will be at least 90% disbursed at the end of this FY¹. The rationale for this Second Central Transport Corridor Project (CTCP2) is the fact that important sub-projects have been prepared under the CTCP which are now ready for implementation, while it seems prudent to wait with a larger sector wide project (the TSSP) until all the elements for a sector-wide approach are in place. Hence, CTCP2 will complement and enhance the outcomes of CTCP by implementing two of the key projects prepared under CTCP. Other important sub-projects prepared under CTCP such as the paving of the Tanga - Horohoro (Kenya Border) road and the Minjingu - Babati - Singida road are taken up by other DPs (MCC and ADB respectively).

4. Description

7. The proposed Repeater Project is in the amount of \$130m. Following is the description of the proposed sub-projects to be financed under the project:

Component A: the Dar es Salaam urban transport component: US \$128.3 million of which IDA US \$67.7 million in this credit and US\$ 21 million through the proposed additional finance in FY08/09, GoT US\$ 9.1 million equivalent and the private sector US\$ 30.5 million

1. Dar es Salaam (DSM) is facing rapidly worsening traffic congestion, which is threatening its economic growth prospects. In 2003 the Dar es Salaam City Council (DCC) decided, as the core of their strategy to battle urban traffic congestion, to embark on the implementation of a bus rapid transit (BRT) system in DSM. BRT systems have been successfully introduced in many large cities in developing countries in Latin America and Asia, but are also increasingly adopted in developed countries. BRT is best understood as a *surface metro system* that uses bus technology to provide metro-like services. While incorporating the features of a metro system such as rapid boarding and dedicated right of way, it is 20 to 50 times less expensive than a metro system but has only slightly less capacity (18,000 vs. 22,000 passengers per hour per direction). The development of the Dar es Salaam Rapid Transit System (DART) has been supported by ITDP (Institute for Transportation and Development Policy) through a UNEP grant and through the Central Transport Corridor Project (CTCP).

2. A concept study for the entire DART system was financed under CTCP and it included the detailed design of phase one of the system, including the preparation of bidding documents for 20.9 kilometers of separate bus-ways, 5 terminals, 29 stations, 6 feeder stations, two bus depots, as well as the improvement of the upcountry bus station at Ubungu which will be integrated with the DART system. The entire trunk system of 20.9 kilometers will be provided with tree shaded bicycle and pedestrian ways on both sides of the road. The

¹ Disbursement was halted by delay of the concession of TRC. This having been resolved disbursement will rapidly accelerate.

average distance between bus stops will be 500 meters and system users will be encouraged to either walk or bicycle to the bus stops (privately operated bicycle parking facilities are planned at each bus stop). The system provides for integration with other public transport services such as Dala Dalas, the Kivukoni ferry and the up-country buses at terminal stations. Articulated trunk buses with a capacity of 140 passengers will provide both normal (stopping at all stations) and express services (stopping only at connector stations). A system of feeder buses with a capacity of 50 passengers will transport passengers to the trunk system through feeder stations. Additionally, there will be complementary buses that will provide both trunk and feeder services. Trunk buses will be accessed at level which will enhance system capacity and comfort.

3. Due to resource constraints, phase one of DART will be implemented in two stages: phase 1(a) and phase 1(b). Phase 1(a) will include 17.2 kilometers of trunk line, namely the Morogoro line (Kivukoni - Ubungo - Kimara) and the Kariakoo branch, while phase 1(b) covers the 3.7 kilometer Kawawa road branch. After the completion of phase 1(a) of the infrastructure, which includes 17.2 kilometers of bus-ways, 24 stations, 4 feeder stations, 4 terminals, 1 depot and the up-country bus terminal, and which is planned to be completed in May 2010, the phase 1(a) bus operator is scheduled to commence operations with a fleet of 200 buses. The construction of the infrastructure for phase 1(b) is scheduled to be executed in parallel with phase 1(a) but will likely be completed about six months after the completion of phase 1(a). At completion of phase 1(b) a second bus operator is scheduled to commence operations with an additional 140 buses.

4. The system will be regulated and managed by the Dar es Salaam Rapid Transit Agency (DART) which was established by government order on May 25, 2007. The buses will be procured and operated by private bus operators that will enter into agreements with the DART agency. The operating contracts will be won through a competitive process commencing with a road show to engender private sector interest followed by a prequalification process whereby suggestions to the bidding documents and draft contract documents are invited - and considered, if appropriate - and will conclude with a competitive bid for the lowest per-km rate for the trunk buses and per passenger rate for the feeder buses (adjustable according to inflation).

5. Another player will be the fare collector, one single private company whose services will be procured through similar procedures as applied for the bus operator. The fare collector will introduce a smart card system and will be responsible for the daily fare collection. Furthermore, the fare collector will operate and maintain the bus stations and will monitor bus performance on behalf of DART. The fare collector will be paid based on a percentage of the ticket revenue (for which he will have bid). Finally there will be the DART Fund Manager, a single private institution (likely a local bank) that will be responsible for financial management, reporting, liquidity control and payments to the system actors (DART agency, bus operator, fare collector and fund manager).

6. Key to the financial sustainability of the system is that passenger fares can be appropriately adjusted when necessary. The financial model developed to assess the system was using a TShs 400 flat fare for a single trunk, complementary or feeder bus trip and a

TShs 500 fare for a combined trunk, complementary and feeder bus trip. Costs will be comparable to the present system where most users need to take two or more Dala Dala trips at TShs 300 each per journey, but DART will offer sharply reduced travel times and enhanced travel comfort. The public transport regulator in Tanzania is SUMATRA (the Surface and Marine Transport Regulator). Bus urban transport fares are regulated by SUMATRA (intercity fares are not). Hence DART with the help of the Fund Manager will make system revenue and expenditure forecasts and based on them propose fare adjustment, if necessary, for consideration by SUMATRA. SUMATRA is autonomous and has a broad based Board of Directors including private sector representatives. Judged on the performance of SUMATRA up to now there is confidence that the matter of DART fare adjustments will be dealt with correctly and efficiently. Concession agreements with the private operators will ensure that payments to them are adjusted with inflation.

7. Under phase 1(a) the system plans to transport an initial total of 270,000 passengers per day, while once phase 1(b) is completed at total of 380,000 passenger would be transported per day. While this sounds a lot, it needs to be considered that already today 240,000 passengers are being transported daily on the Morogoro corridor alone through the Dala Dala based system. A financial model has been developed for the system² and intensive sensitivity analysis has been conducted which has shown that the revenue is robust and under most of the scenario considerable contingency funds could be accumulated. Despite of that, likely initially things will go wrong and GoT will need to put up an escrow fund covering, say, three months operational costs each year during the first years of operations to alleviate fears of investors (to be discussed and agreed with MoF during appraisal). Furthermore, it is being considered to provide an IDA Partial Risk Guarantee (PRG) to cover certain risks of the investors. As well, IFC has shown interest to provide financing for the buses, if requested by the private investors.

8. The majority of the roads³ on which DART will operate are under the responsibility of TANROADS (trunk roads). For this reason and because TANROADS has proven capacity of managing large contracts, infrastructure works will be implemented by TANROADS. TANROADS will later on also be responsible for the maintenance of the bus-ways. The Road Fund Board which is responsible for the financing of road maintenance will earn an estimated TShs 1 billion annually from the TShs 200 fuel levy paid by the bus operator per liter of diesel, which is sufficient for adequate maintenance of the system. It is planned to award the DART infrastructure contract in May 2008. Construction (for phase 1a) is planned to take 24 months and would end in May 2010. Since operations of the system are planned to commence in June 2010 - "D-day" - the construction contract will have strong incentives for timely completion and disincentives for delay since delayed operation would trigger stand-by charges to be paid to the bus operator.

9. A risk analysis is presented in chapter III.E. The gravest risk as seen by many BRT experts is the resistance to change by the existing operators. At commencement of DART operations, Dala Dalas will be prohibited to operate along the DART trunk routes. This will

² Trough UNEP funding managed by ITDP

³ Some of the roads are actually under the municipalities, but they will delegate the management of these roads to TANROADS (to be agreed during appraisal)

necessitate the discontinuation of 42 of the 192 existing Dala Dala routes. DARCOBOA, the Dar es Salaam Commuter Bus Owners Association, has been involved in the preparation of the DART project from the beginning. DARCOBOA representatives participated in the initial and subsequent visits to the Transmilenio BRT system in Bogota, Colombia. They are currently positioning themselves for making a bid jointly with foreign bus operators, manufacturers, and financiers, for the first DART bus concession. Other mitigation measures are being considered, such as allowing Dala Dala bus owners (most of them are very small operators with one or two units) privileged access to shares of the future DART bus operators, and training facilities for the Dala Dala drivers to become DART bus drivers (the first DART bus operator will need at least 400 bus drivers). It also needs to be considered that the current Dala Dala system, regulated by SUMATRA, is fairly disciplined with operators following their assigned routes and paying the annual licensing fees.

Component B: trunk road component: rehabilitation/upgrading of Korogwe – Same, 172 kilometers: IDA US\$ 61.5 million of which US\$ 29.4 in this credit and US\$ 32.1 million through proposed additional finance in FY08/09

10. The Korogwe-Mkumbara-Same trunk road (172 kilometers) forms part of the North-East Corridor of the Tanzanian trunk road network that connects the main commercial center of the country, Dar es Salaam, with the major tourist destinations in northern Tanzania. The road is also part of the main link between Dar es Salaam and Nairobi, the major trade centers of Tanzania and Kenya respectively. Current traffic varies between 630 and 1039 vehicles per day (AADT) of which 25% are trucks. Traffic growth is forecasted to be 7% over the design life period of 20 years.

11. The road was rehabilitated to DSB (double surfaced bituminous) standard in 1991-94. The road currently is in fair to poor condition and its width is not commensurate with trunk road standards. TANROADS therefore plans to rehabilitate the road, provide it with a 50 mm AC (asphalt concrete) surface and to widen it to trunk road standards from the current six meters carriageway and one meter shoulders to 6.5 meters carriageway width and 1.5 meter shoulders. Furthermore, for safety reasons, it is necessary to eliminate some at-grade crossings with the Tanga railway, some sections prone to flooding need to be elevated and some bridge decks need replacement/widening. Also, the design has been submitted to a road safety audit and appropriate speed reducing measures within villages and town, including rumble strips, speed pumps and raised pedestrian crossings are part of the design. Design and bidding documents for this road section were prepared under CTCP. Procurement for works is currently on-going in two lots (Korogwe – Same and Same – Mkumbara) through slice and packaging.

12. Contract duration is 30 months. It is expected that works contracts can be signed at effectiveness of this credit in March 2008 and construction should conclude in September 2010. Total cost for works and supervision is expected to be US\$ 63 million out of which USD 30.7 for Korogwe-Mkumbara section will be 100% financed by the proposed IDA credit.

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Component C: Zanzibar airport component: IDA US\$ 21 million

16. The Zanzibar airport has experienced spectacular growth with more than two-fold growth of passenger traffic from 2001 to 2005, from 198,000 to 415,000, and aircraft movements grew from 16,800 to 27,800. The runway of the airport is 2462 meters long and 45 meters wide. Its surface is in poor condition and needs urgent rehabilitation/strengthening. Additionally, the runway is relatively short and does not provide an adequate security margin for large airplanes (such as Boeing 767). Furthermore, the airport security fence is not encompassing the entire airport and needs extension. Hence, the project finances the rehabilitation/strengthening of the runway, its extension by 560 meters to about 3 kilometers length and the completion of the security fence.

17. The works contract is planned to be awarded at effectiveness of the credit in March 2008. Contract duration is 16 months and works are scheduled to conclude in July 2009. Total cost for works and supervision is estimated to be US\$ 21 million which will be 100% financed by the proposed IDA credit.

18. The current airport terminal is inappropriate to cope with the rapidly increasing passenger traffic and is harming the image of this major tourist destination. The Government of Zanzibar (GoZ) plans to employ advisory services to assist to engage a private sector airport operator through a public-private partnership arrangement. It is a condition of disbursement of this component that MoCT Zanzibar has entered into an agreement satisfactory to IDA with an airport transaction advisor.

5. Financing

Source:	(\$m.)
BORROWER/RECIPIENT	10
International Development Association (IDA)	130
Private Sector	32
Total	172

6. Implementation

7. Implementation of the four components will be executed as follows:

Component	Main Implementing Agency	Other support role
Rehabilitation of Korogwe-Mkumbara-Same road	TANROADS	
Pilot PMMR project	TANROADS	
Rehabilitation of Zanzibar Airport Runway	Project Implementation Unit (PIU)	The MOCT Zanzibar will provide administrative support
Implementation of Dar es Salaam Bus Rapid Transit		
BRT Operations	DART Agency	SUMATRA
Civil works	TANROADS	DART Agency

8. Sustainability

9. Critical for the sustainability of the components of this project is the continuation of implementation of reforms in the sector. Amongst the most important of these are: (i) the strengthening of the policy setting, strategic planning and sector oversight and monitoring capacity of MoID; (ii) the transformation of TANROADS into a truly autonomous and effective road authority through the passing of a respective bill; (iii) the adoption and

implementation of the Road Safety Policy and Strategy (now before cabinet); (iv) the adoption of GoT of a PPP policy and institutional framework; (v) the setting up of effective urban transport management capacity in DSM (through DART and/or the proposed urban transport authority); and (iv) the implementation of the reforms in the transport sector in Zanzibar as proposed in the transport master plan, including the focusing of MoCT on policy setting and sector oversight, the creation of appropriate executive and regulatory agencies (the proposed ZANROADS and ZANTRANSPORT) and the implementation of PPPs in the airport and ports sector. These reforms are part of the current sector dialogue between sector stakeholders. They are also being linked to the various GBS (general budget support) instruments existing, including the PSRC6 of the World Bank that is being prepared.

10. Lessons Learned from Past Operations in the Country/Sector

13. Delays in the preparation of the design and bidding documents led to the cancellation of the planned amount for the paving from Second Integrated Roads Project, however these works are being implemented under Central Transport Corridor Project (CTCP). Thus from the lesson below design and bidding documents for the Korogwe – Same road were completed a year ago under CTCP and now procurement is in advanced stage so that at the planned effectiveness date of CTCP 2 works can commence.
14. Zanzibar Airport runway rehabilitation was an add on to Integrated Roads 2 Project (IRP2) under an addendum to the credit. This contract had to be cancelled due to non performance of the contractor. The airport rehabilitation was not linked to further improvement of the performance of the airport, thus it is planned to link the investment in the airport runway with the establishment of a proposed PPP concession for the management of the airport. For this purpose Ministry of Communications and Transport (MoCT) will seek advisory services to assist to find solutions for the improvement of the airport services, benefiting passengers and accruing income for Government in the form of concession fee.

11. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats (OP/BP 4.04)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pest Management (OP 4.09)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Physical Cultural Resources (OP/BP 4.11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Involuntary Resettlement (OP/BP 4.12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indigenous Peoples (OP/BP 4.10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Forests (OP/BP 4.36)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Safety of Dams (OP/BP 4.37)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects in Disputed Areas (OP/BP 7.60)*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects on International Waterways (OP/BP 7.50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

12. List of Factual Technical Documents

1	National transport Policy 2003	
2	Transport Sector Investment Programme (TSIP)	Draft Final Report
3	National Roads Safety master plan 2004	
4	PER Report 2001/02/03/04/05	
5	Feasibility study and Detailed Design for Rapid Bus Transit (BRT)	
6	Feasibility Study and Detailed Design for Korogwe – Same Road	
7	Feasibility study and detailed design for Zanzibar Airport	
8	National Transport Master Plan 2002	
9	Environmental Guidelines for Transportation program 2001	
10	Tracking of Road Fund Study 2002	
11	Zanzibar Transport Master Plan 2007	Draft Report. PDF
12	DART Resettlements Policy Framework (RPF)	DART RPF. Pdf in IRIS
13	DART Resettlement Action Plan Phase 1(A)	Final Report in IRIS
14	DART Environmental and Social Impact Assessment (ESIA)	Final report in IRIS
15	Korogwe – Same Environmental and Social Impact Assessment (ESIA)	Final Report in IRIS
16	Zanzibar Airport Environmental Assessment	Final Report in IRIS
17	Sector Environmental Assessment for Transport Sector Investment Programme	Final report in IRIS

13. Contact point

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