

# Will Shs 1.5 trillion be well managed?

## Findings from the performance audit of road works



### 1. Introduction

Poor transport networks are a huge obstacle to economic growth in Tanzania. To address this, significant money is allocated in the budget to infrastructure development. In the just-unveiled budget for 2010/11, it will receive 1.5 trillion shillings. This is about 13 percent of the entire budget, and 37 percent more than the 1.1 trillion shillings allocated in 2009/10. A good part of these resources go to road works. But how well is this money managed?

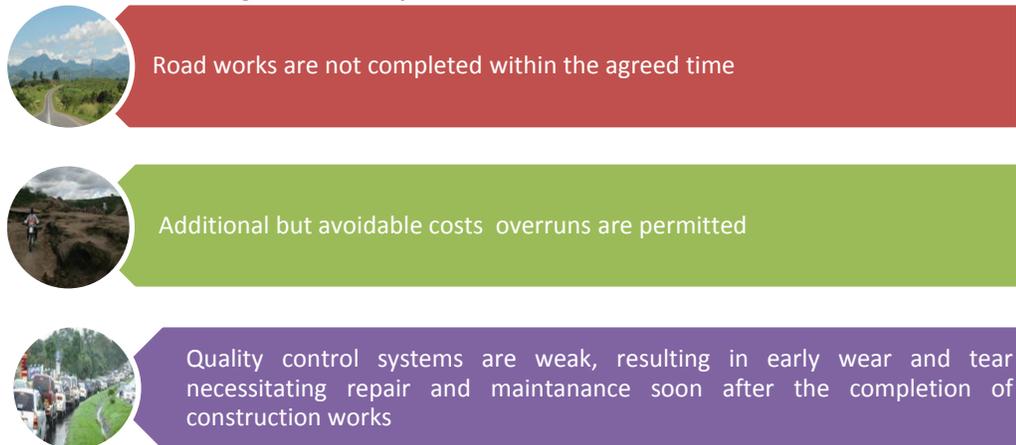
Recently the Controller and Auditor General (CAG) released the first value for money (performance) audit of road works in Tanzania, in which 10 major road projects under TANROADS' management were audited. The audit assesses the effectiveness of the government's systems to manage road works. This brief summarises the findings of the audit and presents the recommendations that the Controller and Auditor General has put forward to correct identified problems.

The audit concludes that the management system for road works of the Ministry of Infrastructure Development/Tanzania Roads Agency (MOID/TANROADS) does not do well in ensuring the economy, efficiency and effectiveness of road works. This leads to poor quality, delays, cost overruns and above all reduced value for money from the resources provided by tax payers. The Auditor General's report suggests ways to better ensure that the large budgets allocated to roads will be well spent.



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**Figure 1: Main problems with road works**



**Source of data:** NAOT Performance Audit Report on Road Works, March 2010

## 2. What is wrong with the system for managing road works?

### a. Quality control is weak

Good quality roads are important to the economy and to the safety of travellers. Quality standards exist and MOID/TANROADS as the responsible departments have an obligation to enforce them. MOID/TANROADS officials insist that the quality control system works well. The audit however concluded that the quality control system is not effective. It uncovered problems linked to poor design and planning in all the projects examined.

**Figure 2: Main problems in design of road works**



**Source of data:** NAOT Performance Audit Report on Road Works, March 2010

Quality control is not effective at the construction stage either. The audit finds that inspections and monitoring are not conducted as planned and that documentation is inadequate. The audit for example could not establish the presence of any records in the 10 investigated projects demonstrating how TANROADS assessed the work of consultants hired to assess the quality of the conducted road works except for progress reports received from the consultants themselves. Site supervision meetings were said to occur but no documentation existed to show they actually did or what issues were addressed through them.

### b. Completion of road works is almost always delayed

In all the 10 road works audited, not one was completed without extension of time. In most cases the extensions were for more than six months. Only three of the 10 roads audited were finished between one to five months after the initially-agreed completion time. The other seven took between 8 months

and two and a half years beyond the initial planned completion date. Such delays mean that the economic and social benefits from roads are also delayed.

**Table 1: Original and actual time for the ten examined projects**

Road Project	Planned Months	Actual Months	Additional months to completion
Kyabakari-Butiama	16	17	1
Somanga-Matandu	30	32	2
Shelui-Nzega	31	36	5
Morogoro-Dodoma	24	32	8
Muhutwe-Kagoma	12	23	11
Nzega-Tinde-Isaka	30	42	12
Mutukula-Muhutwe	34	46	12
Songwe-Tunduma	24	39	15
Tinde-Shinyanga/Mwanza	30	47	17
Mwanza Town	30	58	28
<b>Total time</b>	<b>261</b>	<b>372</b>	<b>111</b>

**Source of data:** NAOT Performance Audit Report on Road Works, March 2010

### c. Cost overruns are commonplace

The design of any construction work includes quantities required and the permissible costs. These designs are mutually agreed between MOID/TANROADS and the contractors before the works starts. The audit notes, however, that cost overruns (increases in the original budget that could have been avoided), are so commonplace that TANROADS considers them to be normal. Eight of the 10 audited projects had cost overruns for one reason or another. For the ten projects combined, the final cost was 57% higher than the original budget!

**Table 2: Original and revised budgets and final costs (billion Tshs)**

Road Project	Original budget	Last revised budget	Final Cost	Final cost as % of Original budget	Final cost as % of revised budget
Kyabakari-Butiama	1.7	2	1.9	111.8	95.0
Somanga-Matandu	12.3	12.4	12	97.6	96.8
Shelui-Nzega	20.7	20.7	19.5	94.2	94.2
Morogoro-Dodoma	25.3	41	43.9	173.5	107.1
Muhutwe-Kigoma	4.4	5.2	4.7	106.8	90.4
Nzega-Tinde-Isaka	20.6	41.6	44.2	214.6	106.3
Mutukula-Muhutwe	13.8	17.6	17.6	127.5	100.0
Songwe-Tunduma	10.2	11.2	14.1	138.2	125.9
Tinde-Shinyanga/Mwanza	28.3	53.2	65.2	230.4	122.6
Mwanza Town	16.4	19	18.2	111.0	95.8
<b>Total</b>	<b>153.7</b>	<b>223.9</b>	<b>241.3</b>	<b>157.0</b>	<b>107.8</b>

**Source of data:** NAOT Performance Audit Report on Road Works, March 2010

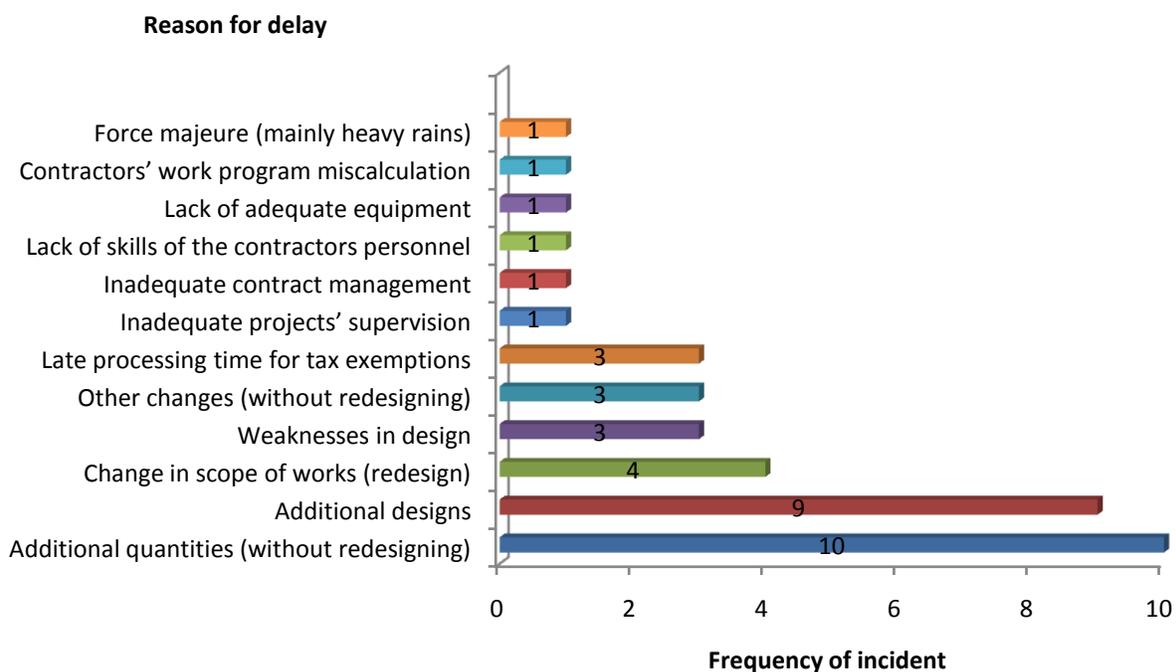
Cost overruns may be caused by delays in implementation, but also arise from miscalculations at the planning and design stage. The audit estimates that cost overruns due to delays alone could impose an additional cost on tax payers of 36 billion shillings over and above the cost estimate in the original plan. This money could be saved if road works were managed more efficiently and could be used to further invest in the road network.

**d. Most delays and cost overruns can be prevented**

The audit notes that most delays in completing road works could be avoided, as they are within the control of MOID/TANROADS and do not arise from *force majeure* (uncontrollable circumstances such as earthquakes, wars, rains, etc) (see Figure 2). The main reasons for delays and cost overruns are:

- Problems in planning, preparation, and design such as incompetent cost calculations. The audit finds that final quantities are almost always different from the original plans and that in nine of the ten projects additional designs had to be made.
- Long delays before the start of construction, making original designs outdated.
- Changes in the scope of work (without redesigning) due to funding constraints, cost underestimations or otherwise.
- Poor performance by contractors.
- Inadequate co-ordination with local authorities and other government departments, in particular when works involve the relocation of existing utilities.

**Figure 3: Reasons for delays in completing road works and frequency of occurrence**



**Source of data:** NAOT Performance Audit Report on Road Works, March 2010

The audit reveals that in some instances, funding constraints occurred because MOID/TANROADS had failed to secure financing before projects started. Most of the road works are financed by donors and for funding to be released, loan agreements and conditions for disbursement have to be met. When this is

not done properly, delays are likely to occur. In other cases funding constraints arose because of the long processing time of tax exemptions.

**e. Consultants are engaged in roles with conflict of interest**

MOID/TANROADS procures contractors to carry out construction works and engages consultants for various other activities. There are good reasons for doing so: MOID/TANROADS itself has a lean staff complement which lacks the ability to do everything in-house. By working with private contractors, efficiency should be increased, but the audit finds that the way MOID/TANROADS goes about hiring contractors leads to problems.

Good practice requires, for instance, that conflicts of interest be avoided. Hence the same consultancy firm should not be engaged to both prepare the design of a road and to evaluate the adequacy of the design. Nor should the same firm be hired to monitor and supervise the construction of a road and to undertake the final inspection of it. Yet this happens quite frequently. The audit finds that the same consultancy firms (and often exactly the same consultants) are engaged in every stage of the works, from design to monitoring and supervision to inspection and approval of the completed road works. The result is that many defects in the design and construction go unnoticed. The audit for example notes that:



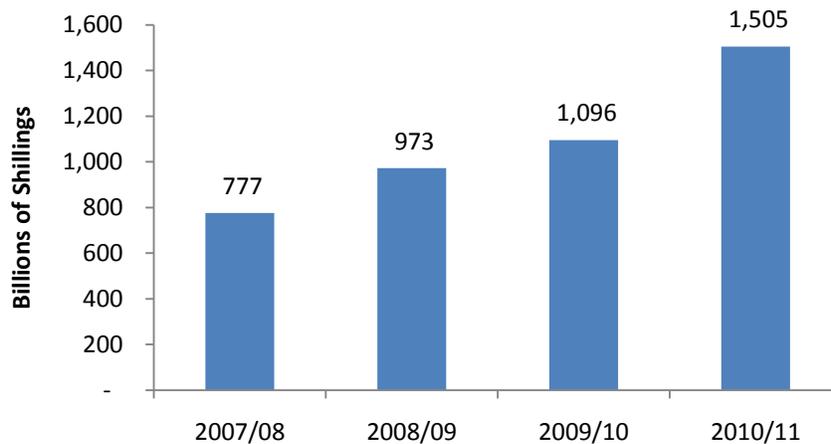
MOID/TANROADS inspections and evaluations were not able to detect certain weaknesses in works which were quite obvious.



All ten studied projects were approved at final inspection even though all of them started to undergo repairs soon after the approval, some of which were quite substantial.

**f. There is inadequate transparency in TANROADS**

**Figure 4: Budget for infrastructure, 2007/08-2010/11 (Billions of Shillings)**



Source of data: Ministry of Finance and Economic Affairs, Budget Speeches for 2008/09-2010/11

In 2007/08 road works utilised 800 billion shillings or the equivalent of 13% of the government budget. In 2009/10 the government allocated 1.1 trillion shillings for infrastructure and in 2010/11 1.5 trillion shillings has been set aside, most of which will be used to finance road construction activities. With such large sums involved, it is important that good value is derived from these resources.

For this to happen there has to be a system that guarantees transparency and which makes it possible for the public to understand the running of road works. The audit finds however that the way documentation is stored at TANROADS does not meet reasonable standards of order or transparency. Consequently much of what TANROADS does remains therefore hidden from public scrutiny. Even the National Audit Office had difficulties getting the documents and information it required to complete its work. This is a significant factor contributing to poor quality road works and the audit notes there is need for:



TANROADS to keep its files and documentation in order



The government to consider the possibility of making vital documents available to the public. Designs and final inspections could be disclosed as soon as they have been approved



TANROADS to establish a register to record the performance of the contractors and consultants it engages. This will help in distinguishing performing and non performing consultants and contractors.



TANROADS to maintain a systematic inventory of the roads, their conditions, required and scheduled maintenance etc , and to make this available to the public.

#### **g. The MOID/TANROADS inadequately supervises its consultants**

MOID/TANROADS engages consultants to assist it in design, supervision and monitoring and even in inspection. To get value for money it has to make sure these consultants and contractors perform. This requires effective supervision, and where quality standards are not, met the application of sanctions and penalties as specified in the contracts.

The audit reveals TANROADS' failure to do so. The audit finds that sanctions were rarely invoked for dealing with extended delays, cost overruns and problems in quality of works. Furthermore consultants' work was not closely monitored and contractors' requests for extensions and cost overruns were not sufficiently scrutinised before being approved. As a consequence MOID/TANROADS granted extensions which may not strictly have been needed.

The audit also reveals that even after extensions have been given, deadlines are not respected – it is as if contractors are left to determine their own work schedules. Neither TANROADS nor its consultants

verified whether contractors’ requests for extensions and cost overruns were justified before they were granted. Instead all requests (**Table 3**) received blanket approvals! Still some contractors failed to complete the work within the granted time. Other works were completed before the extended deadline, suggesting they might not have needed the extension (example Nzega Tinde Isaka road works).

**Table 3: Requested extension and actual extended period used to completion**

S/No.	Road Project	Planned Duration (Months)	Requested /Approved Extension (Months)	Actual extended period(months)
1	Kyabakari-Butiama	16	3	1
2	Somanga-Matandu	30	2	2
3	Shelui-Nzega	31	5	5
4	Morogoro-Dodoma	24	8	8
5	Muhutwe-Kigoma	12	5	11
6	Nzega-Tinde-Isaka	30	24	12
7	Mutukula-Muhutwe	34	9	12
8	Songwe-Tunduma	24	11	15
9	Tinde-Shinyanga/ Mwanza	30	17	17
10	Mwanza Town	30	10	28
<b>Total</b>		<b>261</b>	<b>94</b>	<b>111</b>

**Source:** NAOT Performance Audit Report on Road Works, March 2010

### 3. Conclusion and recommendations

The Controller and Auditor General identified a number of key problems in road works. These include delayed completion of works, cost overruns and poor workmanship. It suggests that MOID/TANROADS is unable to guarantee value for the money given to it. These problems arise from three main factors:



With nearly 13% of the Government’s budget spent on infrastructure each year, it is crucial that these issues are addressed. The audit therefore recommends that planning, design and preparation are carefully undertaken and that miscalculation of costs and inadequacies in design are avoided. It calls for oversight and quality control systems to be improved and for TANROADS to stop the practise of

assigning consultants multiple tasks that could lead to conflicts of interest. Sanctions included in contracts needs to be applied in accordance with the conditions agreed between MOID/TANROADS and the consultants and contractors, and MOID/TANROADS needs to improve its co-ordination with other government departments such as the utility companies who may have infrastructure to be relocated to pave way for road works.

Since documentation and statistics are not adequately kept, TANROADS is urged to take initiative to improve its reporting, record keeping and production of statistics in a manner that facilitates learning, enhances transparency and facilitates public scrutiny. The government is urged to take the necessary steps to improve staffing levels and competencies in MOID/TANROADS to make this possible.

### **References**

United Republic of Tanzania (2010), Performance Audit Report on Road Works, NAOT, Dar es Salaam, March 2010.

United Republic of Tanzania (2008, 2009 & 2010), Speech by the Minister for Finance and Economic Affairs, introducing to the National Assembly the estimates of government revenue and expenditure