

THE UNITED REPUBLIC OF TANZANIA



**PRIME MINISTER'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**



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Reducing Poverty
by Enabling Access

**IMPROVED MAINTENANCE SYSTEMS FOR
DISTRICT ROADS IN TANZANIA
AFCAP/TAN/019**

QUARTERLY PROGRESS REPORT NO. 7

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I T Transport Ltd., Ardington, United Kingdom
in association with Ambicon Engineering Ltd.

DISCLAIMER: This document is one of the outputs from the DFID funded AFCAP Study into Improved Maintenance Systems for District Roads. The Study is being implemented by IT Transport Ltd (ITT). Eng. Abdul Awadh has prepared the report on behalf of ITT. The views expressed are those of the author and not necessarily those of PMO-RALG, DFID or Crown Agents.

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List of Abbreviations and Acronyms

AFCAP	Africa Community Access Programme
CBO	Community Based Organisation
DE	District Engineer
DED	District Executive Director
DEO	District Engineers Office
DFID	Department for International Development (UK)
GBP	Great Britain pound
MC	Municipal Council
ME	Municipal Engineer
MEO	Municipal Engineers Office
Mio.	Million
PMMR	Performance Based Management and Maintenance of Roads
PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
ToR	Terms of Reference
TShs	Tanzanian shilling
USD	United States Dollar

CURRENCY

Approximate Currency Equivalents (as of June 2012]

1 USD = 1,585 TShs

1 GBP = 2,527 TShs

Executive Summary

- This is the seventh progress report for the AFCAP Study into Improved Maintenance Systems for District Roads in Tanzania. It covers the period 1st April 2012 to 30th June 2012. Three districts in Dodoma region are included in the Study – Bahi, Mpwapwa and Dodoma Municipal.
- Delays in procurement of contracts at district level resulted in late commencement of projects and slow progress of the Study. All contracts will now be concluded in September/October 2012. The progress in each district is described below.
- Bahi District: Three framework contracts are being implemented. The second and last work orders were issued in mid April after completion of the works ordered under first work order. Works are progressing well and payments to contractors are effected timely. Lack of a qualified district engineer is affecting the study. The supervision of the works has improved following the return to the DE office of one of the staff who was attending studies. All works are now scheduled for completion in August 2012.
- Mpwapwa District:
 - Lack of a qualified district engineer is affecting the study in the district.
 - Framework contracts: Two framework contracts are being implemented after signing of contracts on 20th April. The first work orders were issued late April and works are progressing well.
 - Community contracts – Contracts were signed with three CBOs and one Village government in early April and working tools were provided to all groups. The maintenance works done in April were observed to be varying from group to group (some good and some not to expectation). It was noted that more training to the groups was necessary. The additional training was carried out in May and June and the groups are now doing well.
- Dodoma Municipal Council: One ‘Long Term Performance Based Contract’ is being implemented. After completing all the ‘improvement works’ the contractor is continuing with ‘maintenance works’. The Municipal Engineer is supervising the works and the contractor has understood the concept and is performing satisfactorily.
- There has been an increase of heavy traffic on some of the district roads that have been improved. This will eventually cause the roads to deteriorate faster. There is need to control the types of vehicles using the unpaved district roads.
- The AFCAP Technical Manager Mr. Nkululeko Leta visited the project in May 2012 and visited all the three districts and saw the ongoing works under all types of contracts. He held meetings with various officials and advised on how to proceed and conclude the project.
- A ‘table of contents’ for the District Roads Maintenance Manual to be produced through this study has been prepared and is annexed in this report for discussion.

1.0 INTRODUCTION

This report describes the progress of the AFCAP Study into Improved Maintenance Systems for District Roads in Tanzania (AFCAP/TAN/019) for the period from 1st April 2012 to 30th June 2012. This is the seventh progress report for the project.

The study is being carried out in three districts in Dodoma Region - Mpwapwa, Bahi and Dodoma Municipal where three different contracting systems are being tested. The systems are; i) Area based long-term framework contracts, ii) Performance based management and maintenance of roads contracts, and iii) Community contracts. Testing of the three models was planned to start in the three districts in 2010. However, there have been delays due to Councils taking time to fully understand the different systems as well as slow contract procurement procedures at district level.

This Progress Report No. 7 follows the sixth progress report that covered the period from 01st January to 31st March 2012 that was issued in April 2012.

2.0 PROGRESS IN BAHI DISTRICT

2.1 System to be Tested

The maintenance system being tested in Bahi district under the study is the 'Area based framework contracts'. The roads earmarked for maintenance during f/y 2010/11 were grouped in three packages covering the northern, central and southern parts of the district. The same system of packaging has been used for maintenance of roads in f/y 2011/12. This will further test the system's effectiveness with District Engineer's staff having gained some familiarity and experience from the first year. The works in each package include spot improvements, routine maintenance and culverts/bridge works as deemed necessary by the DE.

A map of Bahi district showing the locations of the three packages is appended as **Annex 1**

2.2 Progress of 'Framework Contracts' being implemented in F/Y 2011/12

The three contractors completed the works ordered under 'Work Order No. 1' in mid April and a 2nd and last work order was issued at the same time. The contractors have submitted work programmes showing the timing for different work activities indicating completion of all works by mid-August 2012. The programmes are used by the DE to monitor progress of works.



Northern package: Ongoing maintenance and spot improvement works on Kisima cha Ndege – FAO and Lamaiti – Bahi roads.



Central package: LHS - Bahi Makulu – Chimendele road graded and RHS – 900mm cross culvert laid on Chigongwe - Chipanga Rd



RHS – Condition of Chipanga drift as of February 2012 LHS - Completed repair works on Chipanga drift June 2012.



Southern package: LHS: Chidiho - Zejele road and RHS: Mpunguzi- Mwitikira road. All roads heavily graded to reinstate lost shape.

Works are progressing well and payments to contractors are effected timely. The supervision of the works has improved following the return to the DE office of one of the staff who was attending studies. All works are now scheduled for completion in August 2012.

2.3 Planned Activities July – September 2012

The planned activities for the next three months – July to September 2012 are:-

- Completion of works ordered under 2nd Work orders for three contracts in August/September 2012;
- Supervise the road works.

3.0 PROGRESS IN MPWAPWA DISTRICT

3.1 Systems to be Tested

The two maintenance systems to be tested in Mpwapwa district are:

1. The 'small contracts for extended periods (framework contracts)' on most of the important district roads and;
2. 'Community contracts' on selected feeder roads.

With the first approach, two medium to small contracts have been procured through quotations (competitive bidding) involving registered contractors of classes 6 and 7 including some trained labour-based contractors. The 'work scheduling' approach is being used and the contracts are for periods of six months. The works include spot improvements, routine maintenance and culverts/bridge works where deemed necessary.

With community contracts, the two models i.e. one of using villagers under village governments and the second using Community Based Organisations (CBOs) are being tested on four selected roads serving productive areas some with difficult access where many farmers and livestock keepers are living. The works will be mostly routine maintenance with some spot improvement works.

A map of Mpwapwa district showing the locations of the two framework contracts and the four roads for community contracting is appended as **Annex 2**

3.2 Progress

Procurement processes for the framework contracts and the signing of all contracts (framework and community based) was completed in April 2012. Works started and progressed during the reporting period.

3.2.1 Framework contracts

Two contracts were signed on 20th April 2012 with contract durations of 6 months each. The Public Procurement Act has set a limit of TShs 100million for contracts to be procured by quotations. The first work orders were issued immediately after signing of contracts. The roads being maintained under the two contracts and the contract values are shown in the table below:-

Package	Roads covered	Contract amount (TShs)
1	Berege – Msagali Chiseyu – Berege Idili – Chamhawi Mima - Mkanana	95,960,800/-
2	Chang'ombe – Lufu Kibakwe - Wotta Wangi - Lwihomelo	97,147,000/-

Works started in May 2012 and notable progress has been made on package 1 as of end of June 2012. The contractor for package 2 has been slow in mobilising and has not done most of the works that were planned to be completed by end of June.



Contract signing ceremony in Mpwapwa on 20th April 2012.



Project sign board for package 1 contract



Completed grading works on Idilo - Chamhawi road



Gravelling works along Berege – Mssagali Rd



Repair of scoured approaches and extending wing walls on culvert along Berege - Msagali road.



Completed grading works on Chisuyu - Berege road

Works ordered under first work orders are to be completed in July 2012. The second work orders will be for works to be executed for the period August – October 2012.

3.2.2 Community Contracts

All four contracts (one with a village government and three with CBOs) were signed in early April 2012. Handover of working tools and basic training on road maintenance was done on the same day when the contracts were signed. Due to the delay in awarding the contracts and the conditions attached to use of Road Funds, the contracts are for six months. The tools that were issued to the groups (and the numbers of each) are shown on the table below. The numbers differed depending on the length of the road and the terrain where the road is located.

s/n	Tool	Numbers supplied to the different groups			
		Bumila Group	Chapakazi Kitati Group	Kizi Village Government	Twiyaule Group
		4.8km flat/rolling	10km flat/rolling	7.5km mountainous	7.5km mountainous
1	Plain hoe with handle	10	10	30	25
2	Fork hoe with handle	10	10	10	10
3	Shovel/spade with steel handle	20	20	15	20
4	Panga – 18” heavy duty	5	10	14	15
5	Slasher	20	20	20	20
6	Rake heavy duty with handle	10	10	10	10
7	Wheel barrow heavy duty	5	5	9	9
8	Axe with handle	0	0	10	5
9	Pick axe – 3.5kg with handle	10	10	10	10
10	Hammer heavy duty (8kg)	0	0	2	2
11	Hammer light duty	2	3	1	2



Contract signing ceremony – LHS at Kitati village on 3rd April and RHS at Mbuga village on 13th April 2012.



Hand-over of working tools and basic training on site at Kitati village 3rd April 2012

Communities started working on the roads immediately after signing of contracts, The maintenance works done in April were observed to be varying from group to group (some good and some not to expectation). It was noted that more training to the groups was necessary. More thorough training was carried out in May and June and the groups are now doing well.



More thorough training provided beginning of June 2012 to the groups (LHS & Centre classroom and RHS on site)



Pwaga – Kitati road under maintenance by Kitati village CBO named – CHAPAKAZI Group. LHS: Road section which has been maintained and RHS: Ch. 3+000 - maintenance going on towards Ch. 0+000.



Makutupa – Bumila road under maintenance by BUMILA Group. Above photos show sections of the road at different locations that have been maintained (vegetation control, pothole filling and opening of side and mitre drains).



Sections of the Msowero to Mbuga road at different locations that have received some maintenance by the Kizi and Mbuga villagers.

3.3 Planned activities July - September 2012

The planned activities for the next three months – July to September 2012 are:-

- Continue with maintenance on all roads;
- Closely follow up implementation of ‘community contracts’ and streamline the payment procedures;
- Issue work orders No. 2 for the Framework contracts.

4 PROGRESS IN DODOMA MUNICIPALITY

4.1 System to be Tested

The maintenance system being tested in Dodoma Municipality is the 'Performance Based Management and Maintenance of Roads (PMMR) contracts. The network covered includes a number of roads outside urban area (district and feeder roads) with a total length of about 60km. The works include spot improvements and attending to 'trouble spots' followed by routine maintenance of the network for a defined period.

A map of Dodoma Municipal Council showing the locations of the roads under PMMR contract is appended as **Annex 3**

4.2 Progress

All 'improvement works' on the four roads covered by the contract were completed and the contractor has continued to maintain the roads throughout the reporting period. The maintenance works are being done but some locations on Zuzu – Nala and Nala – Veyula roads are still having gullies/potholes which need to be repaired. There are also erosions on shoulders that require attention.

A visit on all roads at the end of June 2012 showed that the roads were all accessible, the average speeds recorded were above 40km/h, there was no corrugations/ruts/degradation seen and height of grass was below the maximum specified. All drains and culverts were clear. This shows that the service levels are being met.



Project sign board with the necessary information about the project.



Mbabane – Chizomoche road: Different sections of the road properly maintained.



Bihawana – Chididimo road: Different sections of the road properly maintained.



Zuzu – Nala road: Different sections of the road properly maintained.



Nala – Veyula road: Different sections of the road properly maintained



Nala – Veyula road: Section of road not maintained properly.

4.3 Planned activities July – September 2012

The planned activities for the next three months – July to September 2012 are:-

- Supervise the 'maintenance works' and conduct end of month inspections for preparation of monthly payment certificates;
- Conduct 'final inspection' end of September for issuance of 'Project Completion Certificate'
- Sensitise the Council management team and councillors on the PMMR concept.

5 MONITORING EFFECTIVENESS

The effect of the improved roads on social-economic activities in the areas that the roads are located will be assessed after September 2012 when all projects will be completed.

The Consultants are continuing to carry out average speed surveys using GPS on the roads under the Study maintenance contracts. The difference in average speed before and after the contracts have been carried out will be one measure of the effectiveness of the maintenance work.

6 ISSUES AND CHALLENGES

Issues and challenges to be noted and suggested actions to be taken by different authorities are as follows:-

General: After improvement of the roads under PMMR contract in Dodoma Municipal there has been an increase of heavy vehicles using the roads (said to be avoiding the weighbridge on the trunk road). The district/feeder roads which are mostly of earth standard cannot sustain the heavy loads and will eventually deteriorate beyond repair. There is a need for control of usage of the district roads by limiting the size of vehicles on these roads.

Bahi District: The absence of a qualified District Engineer is still a major issue. The work orders being prepared by the available staff (technicians) are not comprehensive despite continuing training being provided to them. The supervision of works is not done properly and this will have an effect on durability of works being executed.

Mpwapwa District: Shortage of staff including lack of a qualified District Engineer is still a challenge and has affected the study in terms of delays in procurement of contractors, formalising the community contracts, timely training of the villagers and adhering to the contracts conditions. There have been delays in paying the CBOs after monthly inspection of the works by the DE staff and this could frustrate the communities. There is a need to streamline the process of payments to the communities. It has been found that community contracts require more time than anticipated to be spent on training of communities.

Dodoma Municipality: The Contractor is still not doing some of the 'maintenance works' to the required performance levels. The 'informal inspections of service levels' as well as monthly site meetings are not being done and this is resulting on defects not being addressed timely. The MEO staff needs to closely follow up the 'maintenance works' by regularly visiting the site and holding site meetings.

A newly appointed Municipal Director has started working in June 2012. The PMMR sensitisation seminar for the Council management team is now planned for July/August 2012.

Study End Date: A no-cost time extension of the Study has been granted to 31st December 2012. All the contracts should be completed by October 2012. A Bar Chart showing the start and end dates for the contracts in each district is appended as **Annex 4**. The period after October will be used for evaluation and preparation of the Study Report and a Maintenance Manual.

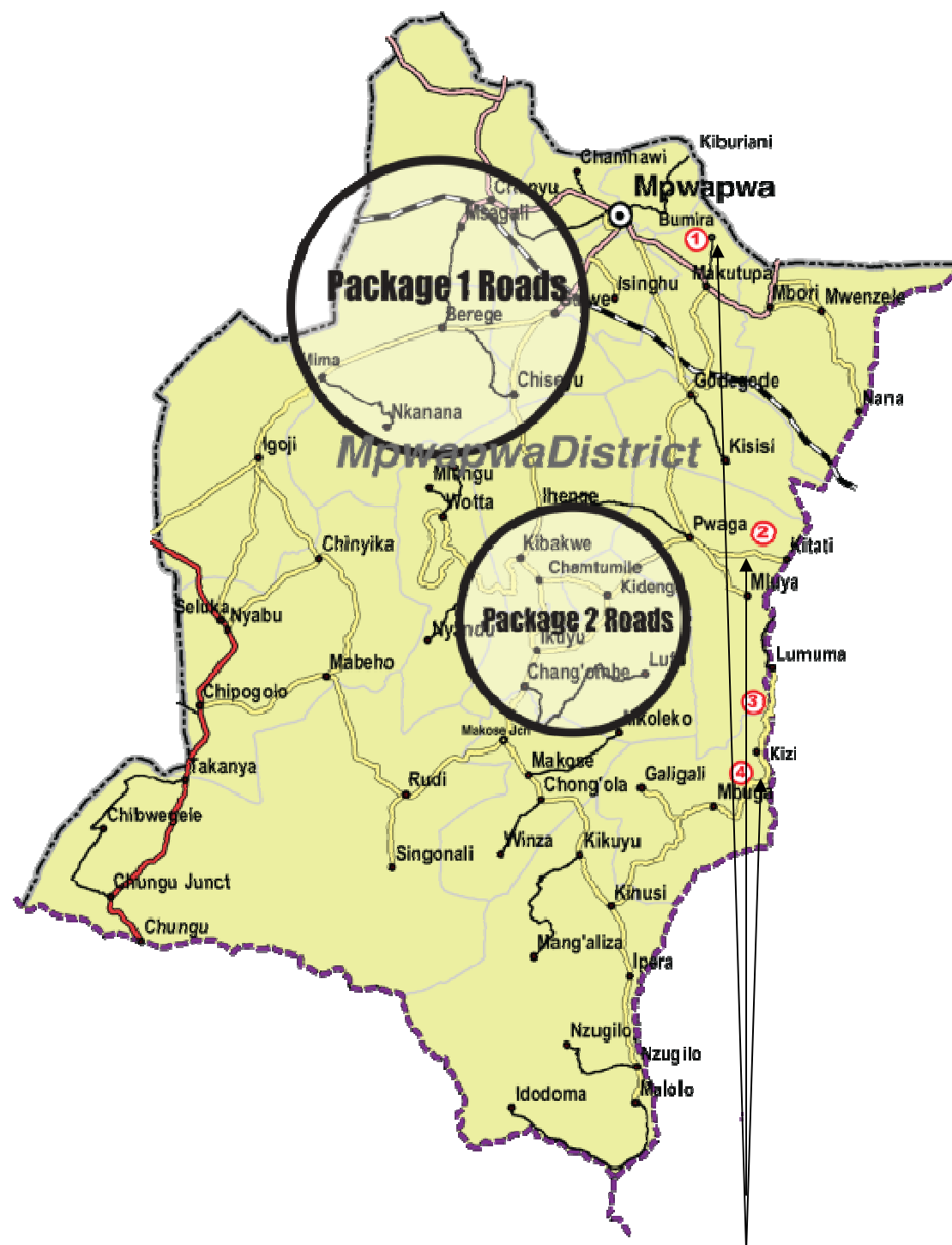
Road Maintenance Manual: The main output of this study will be a 'District Roads Maintenance Manual' which will provide guidance on how to plan and implement the maintenance of the district roads using different forms of contract. A proposed 'Table of Contents' for the manual is included in this report as **Annex 5** for discussion purposes.

Annexes

Annex 1 - Bahi District Map



Annex 2 - Mpwapwa District Map



Roads for community contracts are numbered 1 to 4

Two framework contracts are for roads in Package Nos 1 and 2

Annex 3 - Dodoma Municipal Map



Annex 4 – Timing of Contracts in all districts

s/n	District / Municipal	2011		2012									
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
1	Bahi District												
2	Dodoma Municipal												
3	Mpwapwa district												

Annex 5 – Proposed Table of Contents for the District Roads Maintenance Manual

Introduction

Definitions

Planning and Budgeting

- Road condition surveys
- Annual works plan
- Budgets
- Work packaging

Contract systems and Procurement

- Framework/work scheduling
- Long term performance based
- Community
- Admeasurements short term

Contract Management

- Contract administration
- Technical supervision and quality control
- Certification and payments
- Reporting

Duties and Responsibilities

- PMORALG Infrastructure Development Unit
- Regional Secretariat Engineer
- Local Government engineering staff
- Contractor

Appendices