

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. 3

1st April to 30th June 2011

August 2011

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

ADRICS	Annual District Roads Inventory and Condition Survey
AFCAP	Africa Community Access Programme
CBO	Community Based Organisation
CRB	Contractors Registration Board
DE	District Engineer
DED	District Executive Director
DEO	District Engineers Office
DFID	Department for International Development (UK)
GoT	Government of Tanzania
GBP	Great Britain pound
LGA	Local Government Authority
LGCG	Local Government Capital Grant
LGTP	Local Government Transport Programme
LGA	Local Government Authority
M.C.	Municipal Council
ME	Municipal Engineer
MEO	Municipal Engineers Office
Mio.	Million
PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
PPRA	Public Procurement Regulatory Authority
TOR	Terms of Reference
TShs	Tanzanian shilling
USD	United States Dollar

CURRENCY

Approximate Currency Equivalents (as of June 2011)

1 USD = 1,600 TShs

1 GBP = 2,440 TShs

Executive Summary

- This is the third progress report for the AFCAP Study into Improved Maintenance Systems for District Roads in Tanzania. It covers the period 1st April 2011 to 30th June 2011. Three districts are included in the Study. The progress in each district is described below.
- Bahi District: Works are progressing on all of the three Area Based Framework Contracts which have been awarded to local medium-sized contractors for maintenance of the district road network covering a total of 315 kilometres. 1st Work Orders for Northern and Southern packages were issued in April and May 2011 while the 2nd Work Order for the Central package was issued in May 2011. All contracts end in October 2011. A condition survey of the roads covered by the three contracts was carried out using GPS (experimental method applied in Mozambique) in April 2011. Most of the roads were found to be in fair to poor condition. Periodical condition surveys using the same method will be undertaken for the purpose of monitoring the effectiveness of the maintenance system during the contract period. Contract packages for works to be undertaken in f/y 2011/12 have been agreed and tender documents are being prepared. The plan is to sign contracts in early September with contract duration of 12 months
- Mpwapwa District: The district responded positively to the letter written by PMORALG and confirmed their interest in continuing as an AFCAP pilot district. The preparatory works for piloting the Area Based Framework Contracts using local small-sized equipment based and labour based contractors as well as the community contracts started in May 2011. The roads to be included in the packages to be contracted using framework contracts and those to be maintained by communities have been agreed. The process of mobilising the communities to form CBOs in four (4) villages and one of the villages to use the village government is progressing well. The plan is to have all contracts commence by August 2011 with a duration of 12 months.
- Dodoma Municipal Council: The re-trial of the Area-based Performance Contract is scheduled for next financial year commencing in July 2011. The road network totalling approximately 70 km has been agreed and condition survey using GPS, documents preparation and carrying out sensitisation seminars on the approach have been planned to take place in July 2011. The procurement of a contractor is planned for August 2011 and the contract start date will be September 2011 with a duration of 12 months.
- The identification of villages for village contracts and the collection of baseline data for the purpose of monitoring the socio-economic impact of the different maintenance systems was carried out in April/May 2011.

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 2011 to 30th June 2011. This is the third progress report for the project.

The study is being carried out in three districts in Dodoma Region - Mpwapwa, Bahi and Dodoma Municipal. This Progress Report No. 3 follows the second progress report that covered the period from 01st January to 31st March 2011 that was issued in April 2011.

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 have been grouped in three packages covering the northern, central and southern parts of the district. The works in each package include spot improvements, routine maintenance and culverts/bridge works where deemed necessary.

The details of the road network as packaged in three packages and the results of tender process were shown in the previous progress report.

2.3 Progress of Works

The road works progressed in all the three contracts. Work Orders No 1 for the Southern Package and Northern Package contracts were issued in April and May 2011 respectively. Work Order No. 2 for the Central Package was issued in April 2011 after the contractor had completed the works that were ordered under work Order No. 1.

Northern Package: The Work Order No. 1 for this package covers all the works under the contract. This has been done to avoid delays in completion of works within the contract period. The delay in issuing Work Orders for this package was due to delayed funding and rains that continued until end of March 2011. By end of June the contractor had mobilised fully but not done much work.

Southern Package: The Work Order No.1 covers all the works except construction of one solid drift. The delay in issuing Work Orders for this package was due to delayed funding and rains that continued until end of March 2011. By mid June 2011, the contractor had completed approximately 50% of the works and was planning to complete all works by mid August 2011.



Repair of solid drift on Mphunguzi -Mtita road



Section of Mtita – Nchinila road that has been heavily graded

Central Package: Work Order No. 2 was issued in April 2011 covering the remainder of the works except construction of one solid drift. By mid June 2011, the contractor had completed approximately 35% of the works and was planning to complete all works by the end of July 2011.



Light grading, bush clearing and spot gravelling being done on Bahi Sokoni – Chimendele road

2.4 Condition Surveys using GPS

A condition survey of all roads to be covered by the three contracts was undertaken in April 2011 using GPS to record average travel speed along each section of the road. This is based on a method initially trialled in Mozambique. The resultant graph of speed against chainage indicates those sections where the travel speed was reduced due to poor road condition. Integration of the length of good, fair and poor on each road gives an overall condition rating for the road. This serves as a baseline against which the future condition of each road can be measured after the maintenance works have been carried out. Repeat surveys will be undertaken periodically using the same procedures. The impact of maintenance will then be evaluated.

Sixteen roads with a total length of 326 kilometres were surveyed. Some discrepancies in measured lengths by GPS and previously stated lengths were found. On some roads the difference was significant but overall the net discrepancy was less than 5%. In general, the average condition for each road was lower than previously estimated using the ADRICS method. It is not yet clear whether this is due to a deterioration in road condition since the previous assessment or a difference due to the method used.

Appendix 1 gives the results of the GPS Survey. In addition, the following separate reports have been prepared by the Study Team:

- Detailed field guides on the use of the two models of GPS used (Garmin GPSMAP 76 and Garmin GPS MAP 62) to assist future Field Surveyors and District Engineers' staff to take the GPS measurements;
- A Report "Monitoring the Condition of Rural Roads Using GPS Condition Surveys" summarising the findings on the use of the method in Bahi District.

2.5 Packages for the Framework Contracts to be implemented in F/Y 2011/12

The Council has agreed on the roads to be maintained in f/y 2011/12 but is still debating on the number of packages and grouping of roads. The DE has proposed five (5) packages as shown in the table below but a final decision has not been made.

BAHI DISTRICT - PROPOSED PACKAGES FOR FY 2011/2012

S/N	ROAD NAME	KM	COST IN THE BUDGET (Mil)	TYPE OF MAINTENANCE
PACKAGE NO. 1				
1	Mwitikira - Mphangwe	12	12	RM
2	Nhyinila-Mtitaa	13.8	13.8	RM
3	Mtitaa - Mwitikira	13.65	13.65	RM
4	Mpunguzi - Mwitikira	18	63	SI
	SUB TOTAL	45.45	102.45	
PACKAGE NO. 2				
1	Mayamaya-Mkondai	16	16	RM
2	Mzakwe-Lamaiti	12	42	SI
3	Babayu - Lamaiti	10	35	SI
4	Construction of Box Culvert at Babayu		86.1	CROSS DRAINAGE
	SUB TOTAL	22	179.1	
PACKAGE NO. 3				
1	Zejele- Nondwa	26	26	RM
2	Zejele - Chikopelo	16	16	RM
3	Nkhome - Nholi - Mpalanga	8	28	SI
4	Chidilo - Zejele	4	32	PM
	SUB TOTAL	28	102	
PACKAGE NO. 4				
1	Chigongwe-Chipanga	26.4	26.4	RM
2	Bahi-Bahimakulu-Chimendeli	15.8	55.3	SI
3	Uhelela - Nagulo Bahi	10	35	SI
	SUB TOTAL	25.8	116.7	
PACKAGE NO. 5				
1	Mudemu - Ilindi	20.3	20.3	RM
2	Lamaiti - Bankolo - Bahi	15.5	54.25	SI
3	Kisima cha Ndege - Fao	6	21	SI
4	Msembeta - Mindola	16	56	SI
	SUB TOTAL	37.5	151.55	

PM=Periodic maintenance, RM= Routines maintenance, SI=Spot /Improvement

2.6 Planned Activities July – September 2011

The planned activities for the next three months – July to September 2011 are:-

- Agree with District on the packages for the Framework Contracts to be implemented in F/Y 2011/12 and finalise tender documents by end of July 2011. Tenders be advertised in August 2011 and contracts awarded in September 2011 with contract durations of 12 months.
- Preparing and issuing work order No 2 for Southern Package and Work Order No. 3 for Central Package in early August 2011.
- Undertaking road condition surveys in September 2011 using GPS on all the roads under the three packages to assess the change of condition as a result of maintenance done.
- Supervise the road maintenance works planned to start in October 2011
- DEO to prepare the 3rd Quarterly report

3.0 PROGRESS IN MPWAPWA DISTRICT

3.1 Systems to be Tested

The 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, it is intended to have several medium to small contracts to be procured through quotations and competitive bidding involving the registered contractors of classes 6 and 7 as well as the specialist labour-based contractors. The 'work scheduling' approach is to be used and the contracts are to be for periods of between six and nine months. The works will include spot improvements, routine maintenance and culverts/bridge works when deemed necessary.

With community contracts, the two models i.e. one of using villagers under village governments and the second of using CBOs was to be tested on four selected roads serving productive areas with difficult access where many farmers and livestock keepers are living. The works will be mostly routine maintenance and spot improvement works when deemed necessary.

3.2 Progress

The agreed work plan for undertaking the study in Mpwapwa district was not implemented due to misunderstandings between the district officials. The DEO has contracted out maintenance works in F/Y 2010/11 using the conventional systems of short term contracts.

Following the discussions between PMO-RALG, AFCAP, IT Transport and the Mpwapwa district officials (DED and Ag. DE) that took place in February 2011 the Council re-confirmed in early April 2011 its willingness and interest to participate in the research project in F/Y 2011/12.

The follow up visit by Consultants in May 2011 resulted in agreement on the roads to be included in the research both for 'framework' and 'community' contracts. The table below shows the roads and the method of contracting;

s/n	Road name	Length (km)	Type of maintenance	Estimated cost (TShs)	Type of Contract
1	Chinyika – Nyabu	14	RM	14.0	Framework (Package 1)
2	Igoji – Ma\beho	26	RM	28.0	
3	Fufu – Igoji 1	12	RM	12.0	
4	Takanya - Chibwegele	1.5	SI	5.4	
5	Chibwegele - Chungu	1.5	SI	5.4	
	Total	55.0		62.8	

6	Kibakwe - Wotta	21	RM	21.0	Framework (Package 2)
7	Wotta - Wangi	3.5	SI	12.0	
8	Wangi - Lwihomelo	2.0	SI	7.2	
9	Wotta - Matonga	2.0	SI	7.2	
10	Wotta - Mlunga	2.0	SI	7.2	
11	Kidabaga - Nyandu	3.0	SI	10	
	Total	33.5		66.0	
12	Mbori - Nana	23	RM + 2No. 900mm culverts	31.0	Framework (Package 3)
13	Inzomvu - Godegode	2.5	SI	9.0	
14	Godegode - Kisisi	3.0	SI	10.8	
	Total	28.5		50.8	
15	Ikuyu - Kidenge	10	RM	10.0	Framework (Package 4)
16	Pwaga - Chamtumile	18	RM	18.0	
17	Iyenge - Pwaga	15	RM	15.0	
18	Chan'gombe - Lufu	19	SI + RM	26.2	
	Total	64		69.2	
19	Lumuma - Mbuga	20	SI + RM	28	2 No. community contracts
20	Pwaga - Kitati	10	RM	10	Community contract
21	Mpwapwa - Kiboriani	11	SI + RM	15	Community contract
22	Makutupa - Bumila	4.5	RM	4.5	Community contract

RM= Routine maintenance, SI=Spot Improvement

The plan is to finalise the works documents including the BoQs for the above packages in July 2011. Quotations will then be invited in August and contracts awarded in September 2011. The contract durations will be 10 months so as to carry out the maintenance works in two phases, 1st phase before the rains and the 2nd phase immediately after the rains.

Baseline data on social and economic aspects in the areas that the above roads are situated have been collected.

Community Mobilisation

The district has started mobilising communities in the villages that are alongside the roads which have been earmarked for community contracting to form CBOs. These will be contracted to carry out the road maintenance works. Sensitisation forums have been held in five villages namely Kiboriani, Kitati, Kizi, Mbuga and Bumila. The intention is to have all the CBOs registered by the District Council and have functioning bank accounts by end of July 2011. This will permit contracts to be awarded in August 2011.



Part of community that attended sensitisation seminars in Kizi and Mbuga villages

The DEO planned to procure the working tools for use by the CBOs by end of July 2011. However, the DE has indicated that there are no funds for procurement of the tools (approximately TShs 13million) and this activity will delay until the 1st release of the road funds for the f/y 2011/12 is made sometime in August 2011.

3.3 Planned activities July – September 2011

The planned activities for the next three months – July to September 2011 are:-

1. Finalise the quotation documents for the four framework contracts by end of August 2011;
2. Follow up procurement of works contractors in September 2011;
3. Follow up the registration of CBOs to be completed by end of July 2011;
4. Follow up procurement of working tools in July 2011;
5. Undertake road condition surveys in September 2011 using GPS on all the roads under the four packages and the roads to be maintained by the communities to obtain the base line condition data;
6. Supervise the road maintenance works planned to start in October 2011;
7. DEO to prepare the 1st Quarterly report.

4 PROGRESS IN DODOMA MUNICIPALITY

4.1 System to be Tested

The maintenance system to be tested in Dodoma Municipality is the 'Area based performance contracts'. The network to be covered will include a number of roads outside urban area (district and feeder roads with notable traffic) with a total length of about 60km. The works will include initial minor spot improvements and attending to 'trouble spots' followed by routine maintenance of the network for a defined period.

4.2 Progress

The first trial of the Performance Based Maintenance Contract (PMMR) in Dodoma Municipal that was to be implemented in F/Y 2010/11 failed due to the high bids that were received from the Contractors. This especially related to the part of the monthly costs for routine maintenance that were found to be unrealistically high for the rural roads.

The plan now is to test the PMMR in the f/y 2011/12 after imparting sufficient knowledge on PMMR to the key stakeholders including DEO staff, contractors and Council leaders.

Sensitisation seminars have been planned for July 2011 and notices (**Appendix 2**) have been posted on notice boards at various locations in Dodoma and sent to the Tanzania Civil Engineering Contractors Association.

The roads that have been earmarked for the PMMR contract for f/y 2011/12 are listed in the table below:-

s/n	Road name	Length
1	Chididimo road	6.0
2	Bihawana - Chididimo	10
3	Mbabala Jct - Chizomoche	7.0
4	Zuzu - Nala	9.0
5	Nala - Veyula	27.5
	Total	59.5

It is planned to finalise the tender documents in July 2011, procure the works contractor in August and sign the contract by the end of August 2011 with contract duration of 12 months.

Base line data on social and economic aspects in the areas that the above roads are situated have been collected.

4.3 Planned activities July – September 2011

The planned activities for the next three months – July to September 2011 are:-

- Sensitise all the stakeholders (District Municipality staff, councillors and contractors) on PMMR in preparation for the next trial PMMR contract in July and August 2011;
- Finalise the tender documents by August 2011;

- Follow up procurement of works contractor in September 2011;
- Undertaking road condition surveys in September 2011 using GPS on all the roads included in the package to obtain the base line condition data;
- Supervise the road maintenance works planned to start in October 2011;
- DEO to prepare the 1st Quarterly report

5 MONITORING EFFECTIVENESS

Various indicators will be used to monitor the effectiveness of the different systems that are to be tested in the three Districts. The indicators will show the impact on both technical and social-economic aspects.

Baseline data for **social-economic indicators** have been collected in all districts in May 2011. Periodical surveys will be conducted to obtain the data that will be used in monitoring the effectiveness of the different maintenance systems. A sample of twelve roads have been selected for detailed monitoring. Primary data was collected through interviews and focus group discussions using pre-prepared questionnaires. Attention was paid to gender including collecting gender disaggregated data and ensuring road committees included women as well as men. It was found that villages selected for study were already gender sensitive. The work included orientation of district staff (DE and CDO staff) on how to collect the data for the baseline and repeat surveys. For practical reasons, Councillors were interviewed separately. The baseline data has been analysed and collated into a series of tables. Appendix 3 shows a summary of the main findings on the baseline indicators. The “Baseline Survey for Monitoring and Community Mobilization for Community Contracts” report prepared by the Study Socio-economist provides more detailed information.

Village Awareness Meetings and Baseline Surveys were carried out in five villages in Mpwapwa District that have been identified for community contracting. Public Meetings were held in each village to explain the community contracting concept. None of the villages had active CBOs. Therefore the process of setting up CBOs was explained and agreed. An important finding was that all villages contained people with relevant skills such as masons and carpenters. There was a general high level of interest and enthusiasm shown by the village participants in these meetings. Appendix 4 gives a summary of some of the number of households, availability of workers and existence of skills in each of the five villages. The “Baseline Survey for Monitoring and Community Mobilization for Community Contracts” report prepared by the Study Socio-economist provides more detailed information.

Road condition surveys using GPS (method tried in Mozambique) have been undertaken in Bahi district on the roads that are to be maintained under the f/y 2010/11 contracts. Manuals/guidelines have been prepared explaining how to undertake condition surveys using a Garmin handheld GPS. The follow up condition surveys will be carried out in October 2011 on the same roads to capture the effectiveness of the maintenance on quality of the roads. It is planned to carry out road condition surveys using GPS on the roads that will be maintained under the f/y 2011/12 contracts in all three districts immediately before the contractors commence works. Follow up condition surveys will be done in the middle and at the end of contract periods on the same roads to capture the effectiveness of the maintenance on quality of the roads.

6 ISSUES AND CHALLENGES

Issues and challenges during this reporting period are as follows:-

Disrupted flow of funds from RFB: A mistake that was made in the process of budgeting for the year 2010/11 caused a problem in releasing of funds to the Councils and raised worries amongst the contractors in Bahi District who eventually hesitated to commence work in fear of not to be paid. The problems was solved sometime in May 2011.

Bahi District: Lack of a qualified District Engineer is affecting the supervision of the ongoing works. It has been observed that some of the works that are being done are not to required quality and some unnecessary works are being undertaken. It is necessary that a qualified and experienced engineer is posted to the district.

Mpwapwa District: There is goodwill now from the Council to participate in AFCAP and all parties are showing interest. The delay in procurement of working tools for the CBOs will delay the commencement of the community contracts. Basic training of the CBOs can only start after the tools are procured.

Dodoma Municipality: The road network that has been identified for the trial PMMR contract during f/y 2011/12 is only 60km long. The impact of PMMR on such a short length of network might not be appreciated but it will still be a start for the purpose of learning and building experience.

The sensitisation seminars that are planned for July 2011 are very important and should lead to a better understanding of the PMMR concept by all parties. There should not be any postponement of the seminars and the ME should ensure that as many people as possible attend the seminars.

Other Issues

In his March 2011 visit, the AFCAP Technical Manager drew particular attention to a number of issues requiring attention. These were:

- a) Overall slow progress
- b) Inadequate design of spot improvements
- c) Inadequate supervision
- d) Better baseline data on road condition
- e) More appropriate performance based specifications

In addressing the above issues, the field engineer has taken the following actions:

- a) Discussed and advised the contractors and the council technical staff on better planning and contractual obligations;
- b) Inspected the ongoing maintenance works more frequently and advised the Council technical staff on what needs to be done under 'spot improvements' to effectively utilise the scarce financial resources;
- c) Advised the council technical staff on how to supervise the works in a more effective way and the need to ensure good quality of works;

c) With support of a GPS expert from ITT UK, has learnt the use of GPS in assessing the road condition and intends to apply this procedure periodically to be able to capture the effectiveness of the different maintenance systems on the condition of the roads.

Appendix 1. Bahi Roads Condition Survey Results (using GPS)

From April 11th to April 17th 2011 a trial condition survey of 16 roads in Bahi District, Tanzania was carried out using GPS equipment to measure speed as a 4x4 vehicle was driven along each road.

The program of surveys and analysis was as follows:

April 11th – Bahi Northern

Code	Road Name	Stated Length	Measured Distance	Stated Condition
103	Babayu - Kongogo - Lukali	34.1	34.1	Good
105	Lamaiti - Bankolo -Mkakatika - Bahi	26.7	26.5	Fair / Poor
107	Mayamaya - Mkondai	16.0	15.6	Good
108	Asanje - Duluu	4.5	5.0	Fair
		81.3	81.2	

April 12th – Bahi Northern and Central

Code	Road Name	Stated Length	Measured Distance	Stated Condition
106	Mzakwe - Lamaiti	25.0	36.1	Good
101	Lamaiti - Makanda	15.4	15.0	Fair
201	Chigongwe - Chipanga	36.4	36.2	Good
203	Bahi Sokoni - Bahi Makulu - Chimendeli	25.6	23.2	Good
204	Ibihwa - Bankolo	20.3	20.5	Good
		122.7	131.0	

April 13th – Bahi Southern

Code	Road Name	Stated Length	Measured Distance	Stated Condition
301	Mpunguzi - Chibelela - Mtitaa - Nkhome	38.6	38.7	Good
302	Nkhome - Nholi - Mpalanga	12.5	12.3	Good
303	Nchinila - Mtitaa	13.2	13.3	Fair
304	Zejele - Magaga -Chifutuka	21.5	24.5	Good
305	Zejele - Nondwa	9.9	9.8	Fair
		95.7	98.6	

April 15th – Bahi northern

Code	Road Name	Stated Length	Measured Distance	Stated Condition
104	Zamahelo - Asanje	8.4	8.3	Good
102	Kisima cha Ndege - Zanka	7.1	7.1	Good
		15.5	15.4	

Three roads showed significant different lengths from those previously stated, as highlighted above. Although all surveys except the last 2 were done in conjunction with a member of the district engineering staff it may be that the exact start and end points use were no correct as no exact co-ordinates were given.

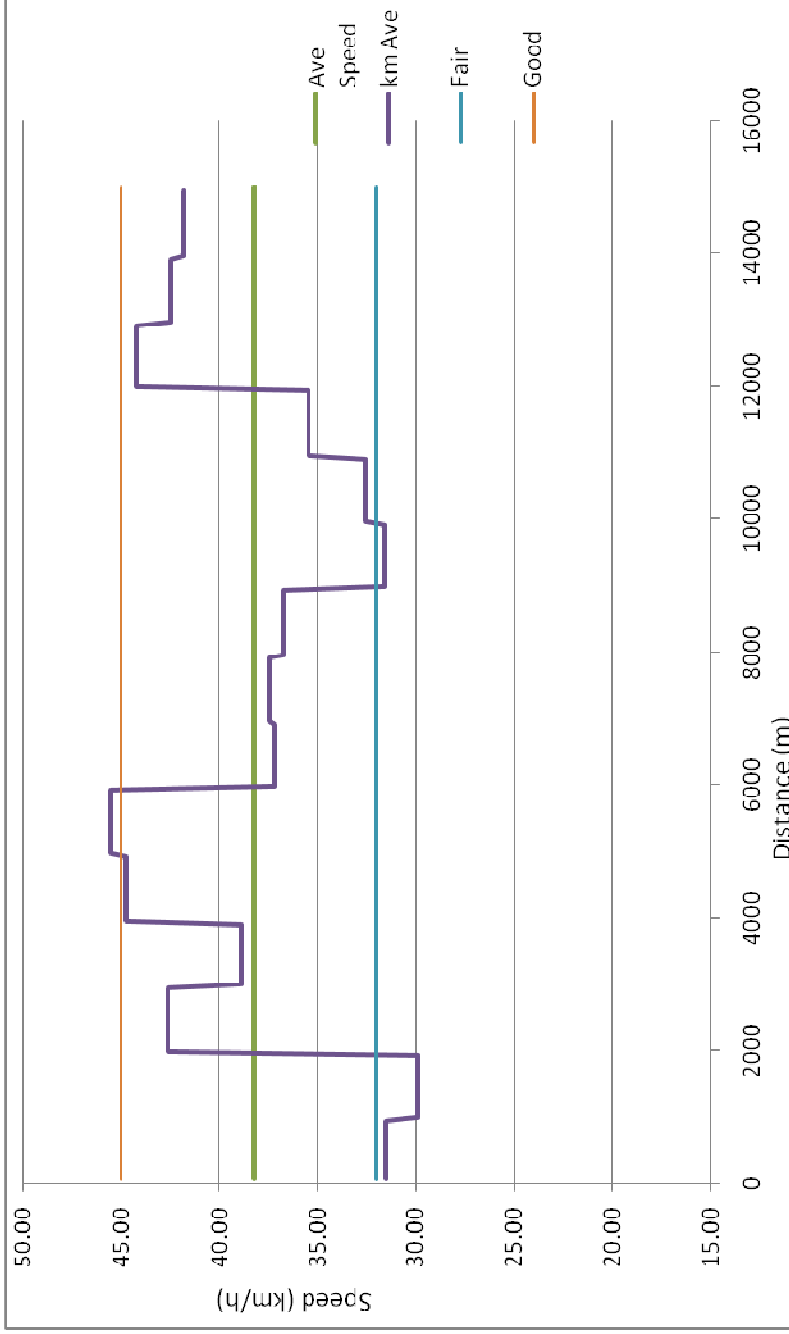
The results of the analysis of the driving speed survey and the condition of each road are given in the following graphs and tables. For a full explanation of the survey and analysis procedures used see the document ‘GPS Road Condition Survey Procedures’

Whilst surveying the roads a maximum of approx 130km.was achieved in one day. This was achieved in about 9 hours from leaving Dodoma to returning. The roads were no too far spread from each other and the start and end of surveying were 1 ¾ and 1 hr from Dodoma respectively. An reasonable average for the number of kilometers that could be achieved in one day is 100km.

The processing and analysis of the data and presentation of the results, once the technique has been mastered, should take no more than ½ -1 hr per road. Therefore, it should be feasible to process and analyse one day’s survey data in one day back in the office, giving an overall production rate of 50km per person-day.



101 Lamaiti - Makanda

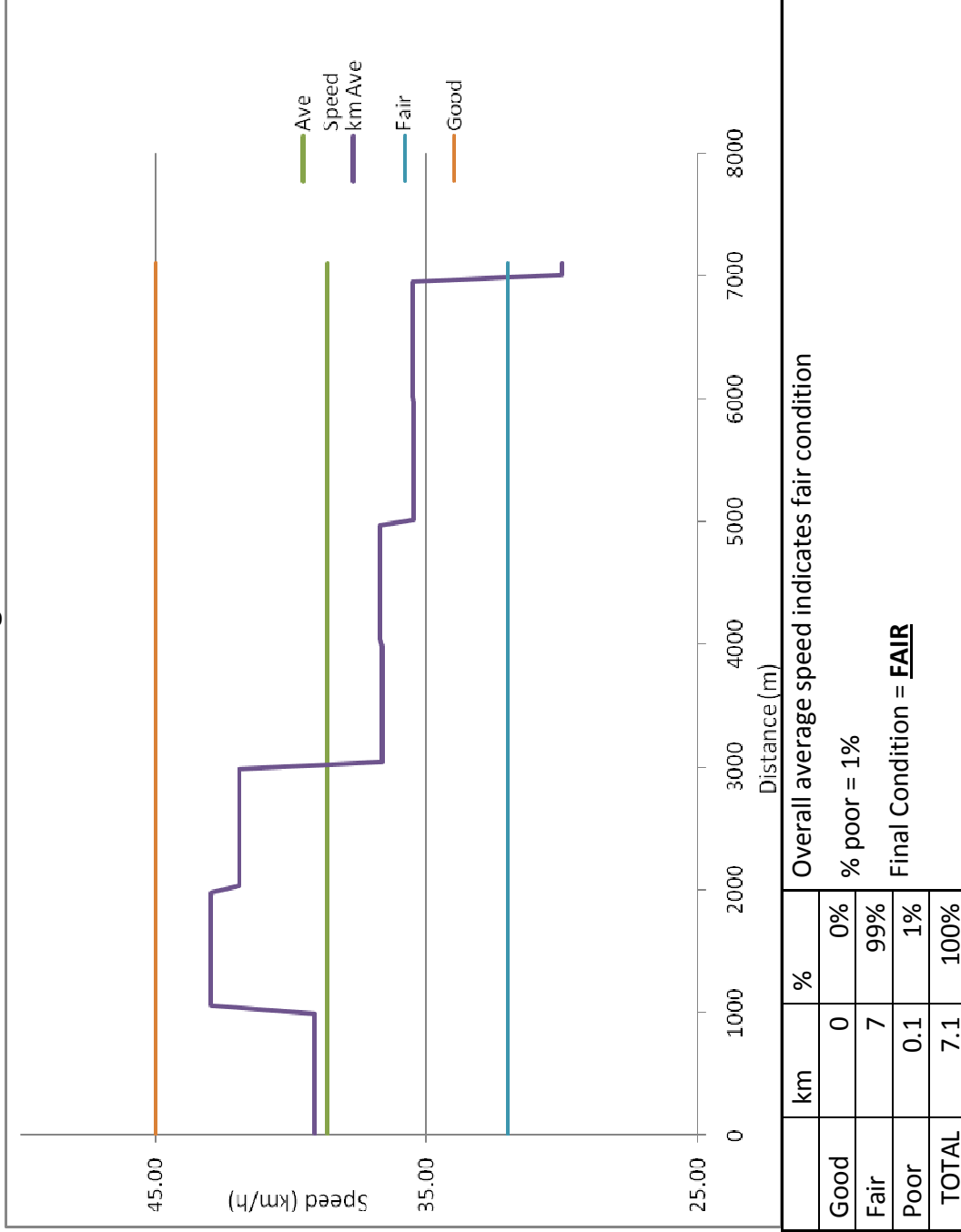


km	%
Good	1 7%
Fair	11 73%
Poor	3 20%
TOTAL	15 100%

Overall average speed indicates fair condition
 % poor = 20%
 Final Condition = **POOR**

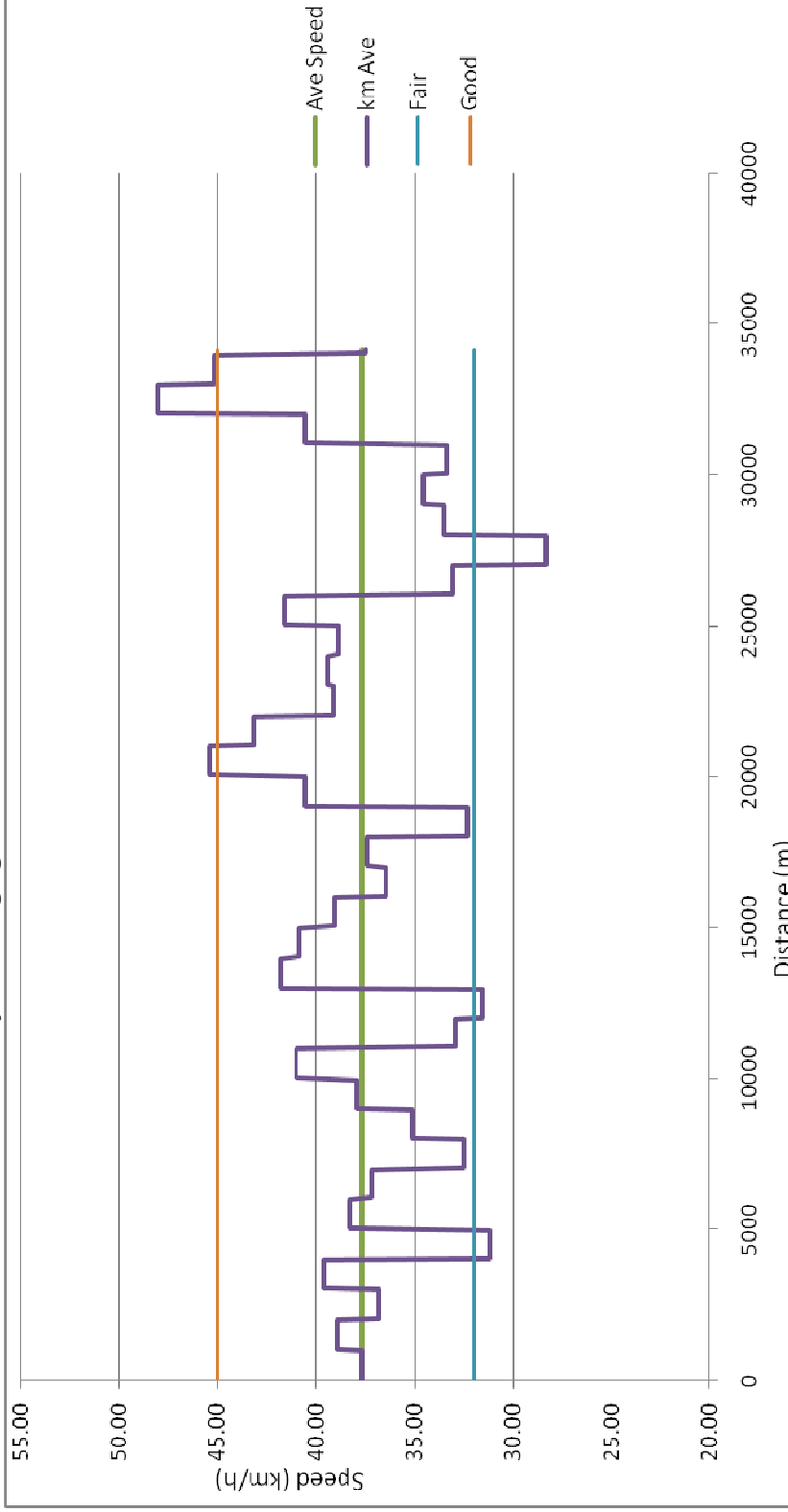


102 Kisima cha Ndege - Zanka





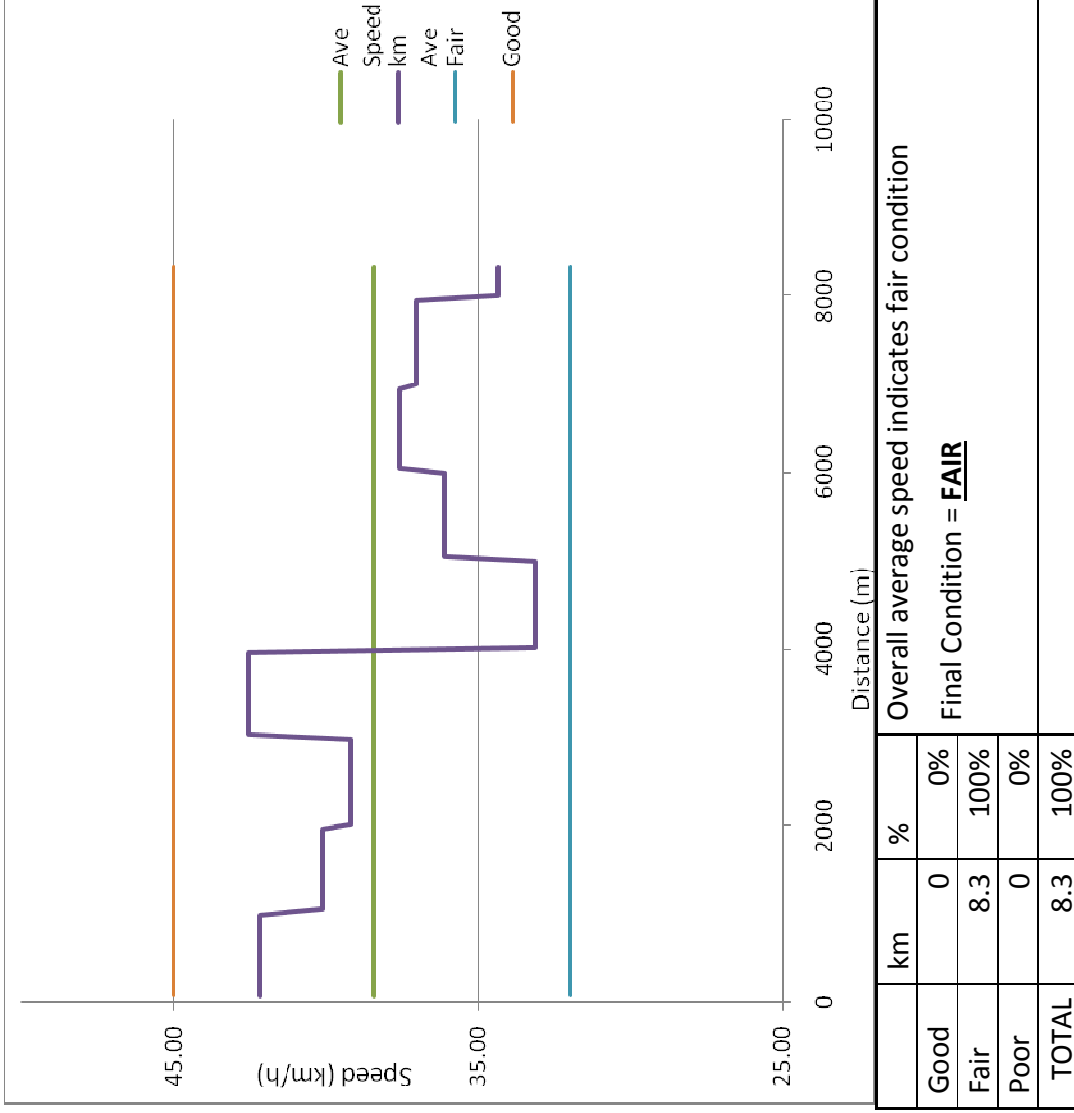
103 Babayu - Kongogo - Lukali



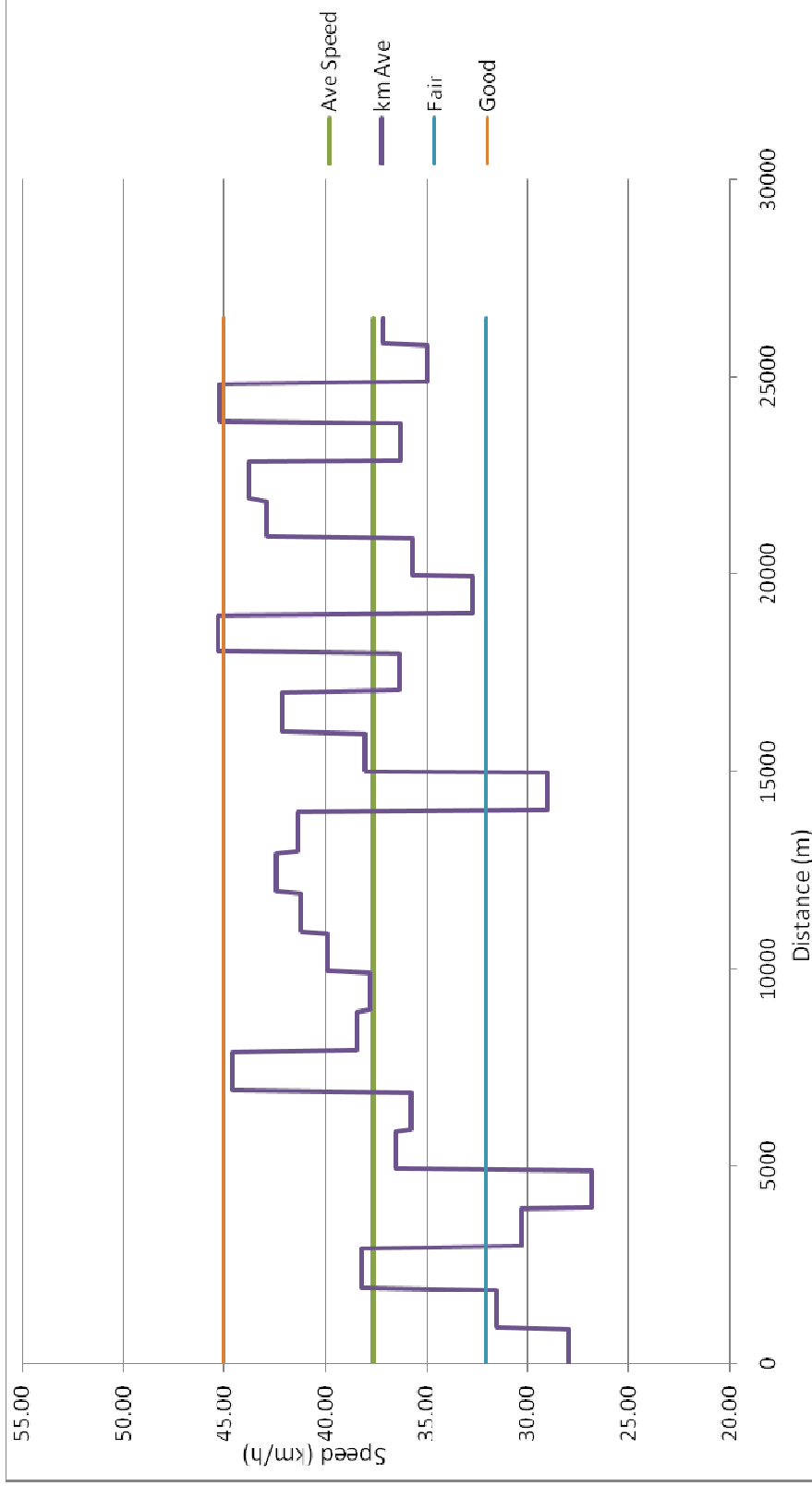
	km	%
Good	3	9%
Fair	28	82%
Poor	3	9%
TOTAL	34	100%

Overall average speed indicates fair condition
 % poor = 9%
 % good = 9%
 Final Condition = **FAIR**

104 Zamahelo - Asanje



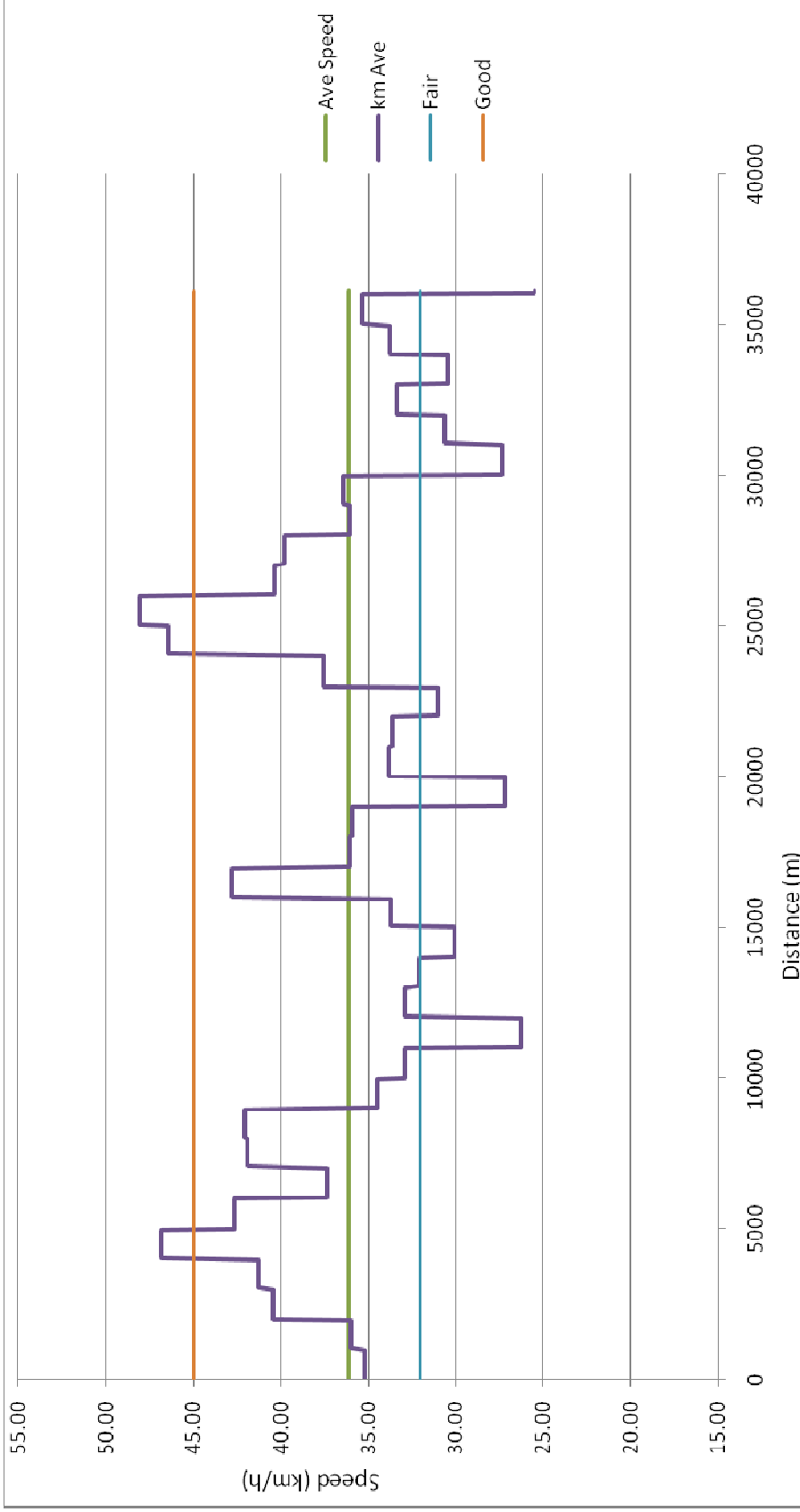
105 Lamaiti - Bankolo -Mkakatika - Bahi



km	%
Good	2
Fair	19.8
Poor	5
TOTAL	26.8

Overall average speed indicates fair condition
 % poor = 19%
 % g00 = 7%
 Final Condition = **FAIR**

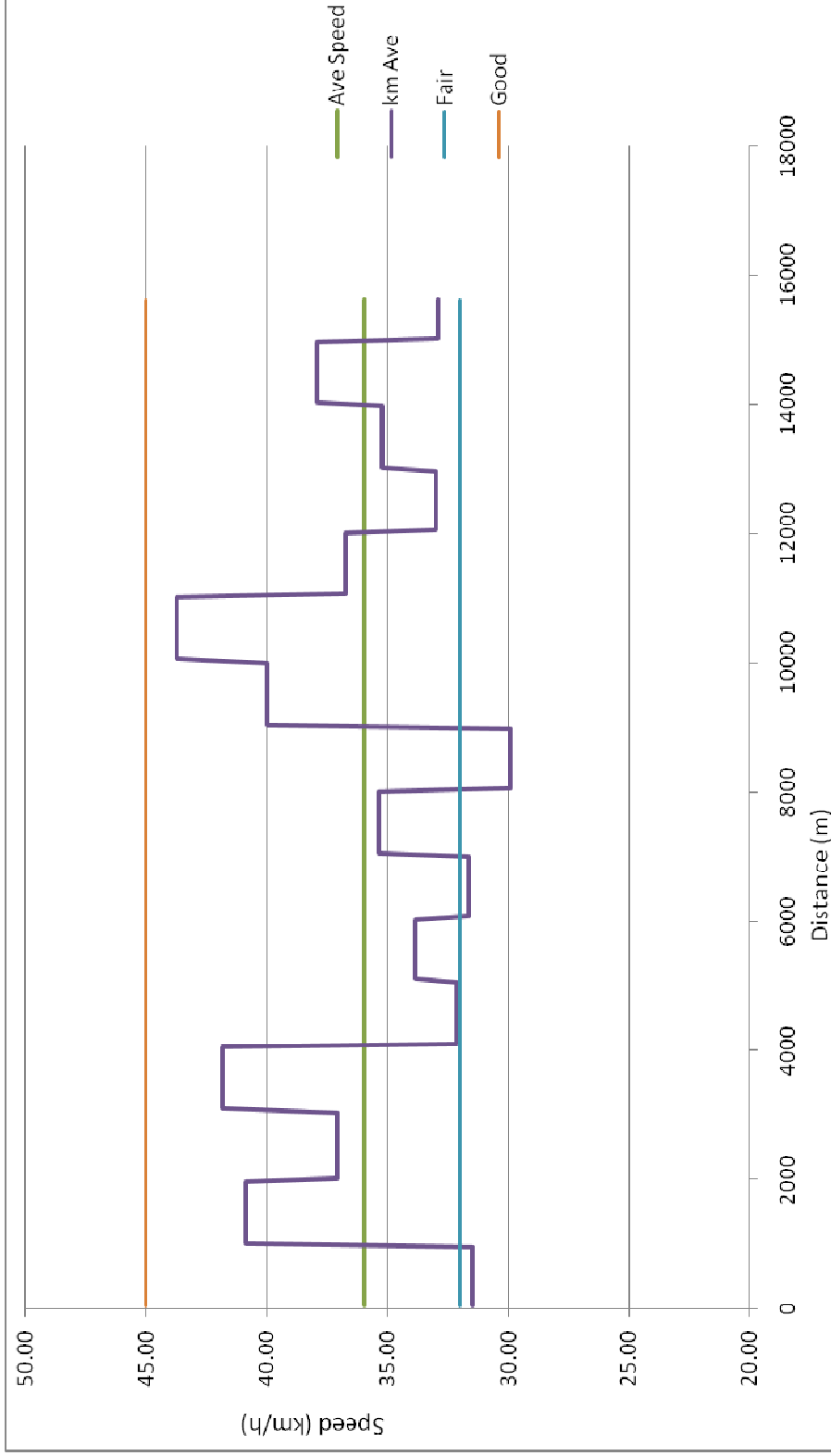
106 Mzakwe - Lamaiti



	km	%
Good	3	8%
Fair	26	72%
Poor	7.1	20%
TOTAL	36.1	100%

Overall average speed indicates fair condition
 % poor = 20%
 Final Condition = **POOR**

107 **Mayamaya - Mkondai**

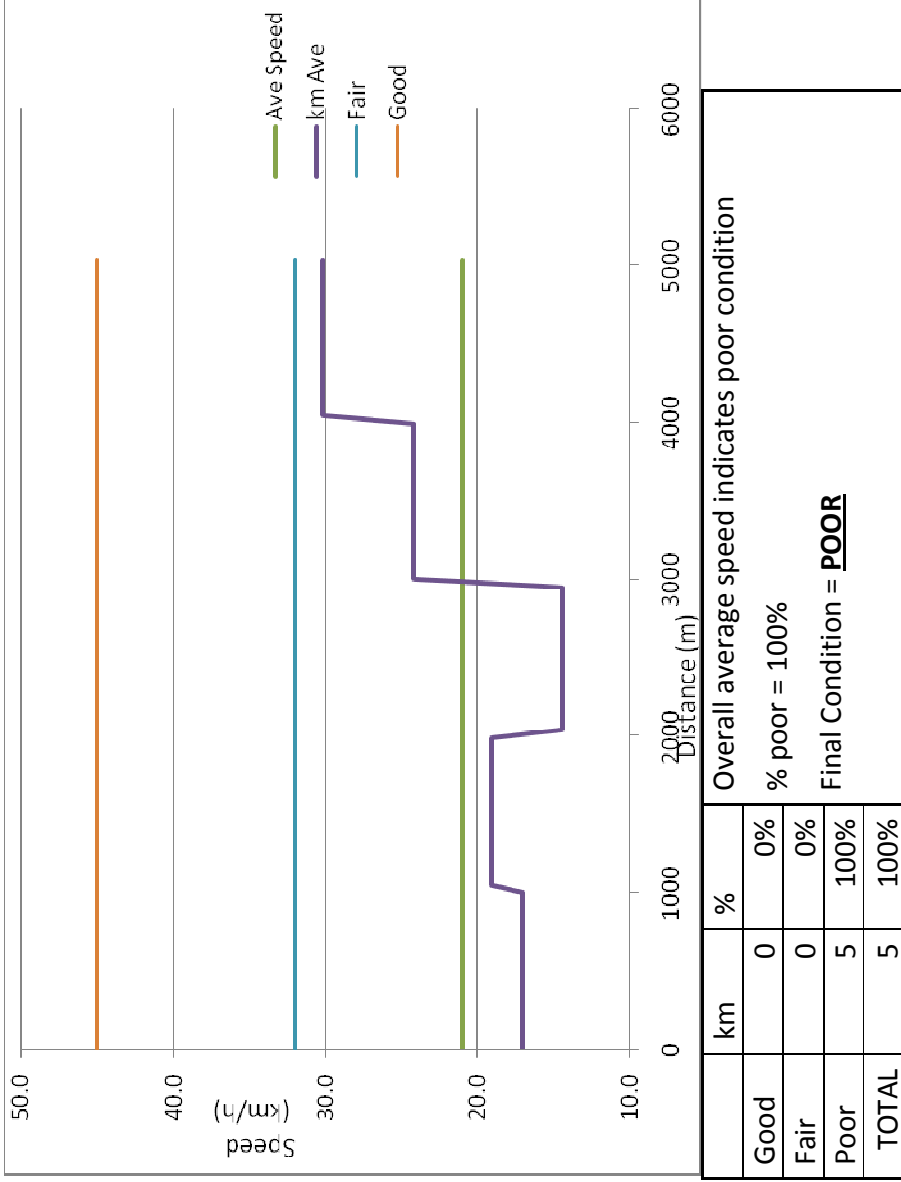


	km	%
Good	0	0%
Fair	12.6	81%
Poor	3	19%
TOTAL	15.6	100%

Overall average speed indicates fair condition
 % poor = 19%
 Final Condition = **FAIR**

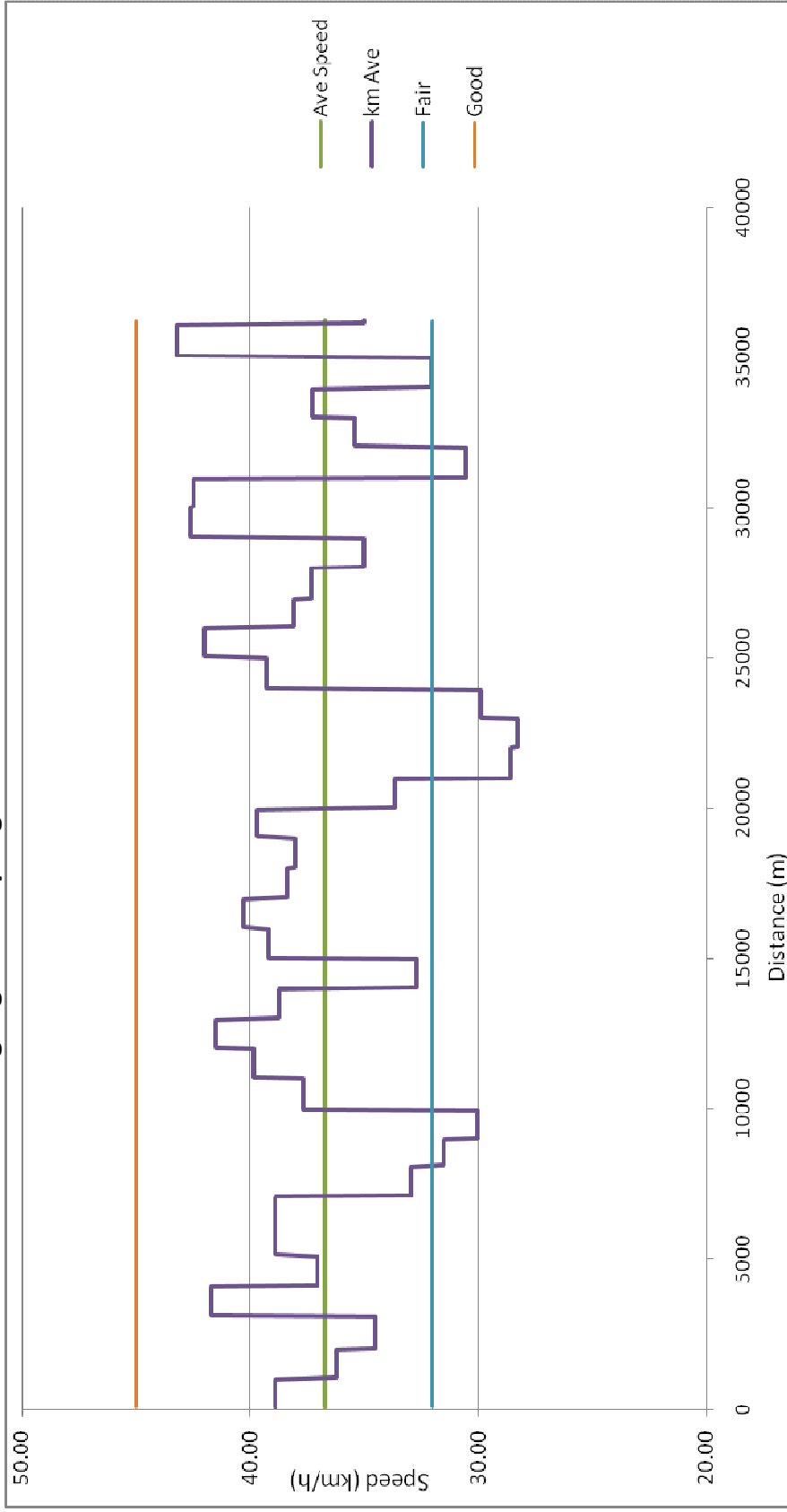
Asanje - Duluu

108





201 Chigongwe - Chipanga

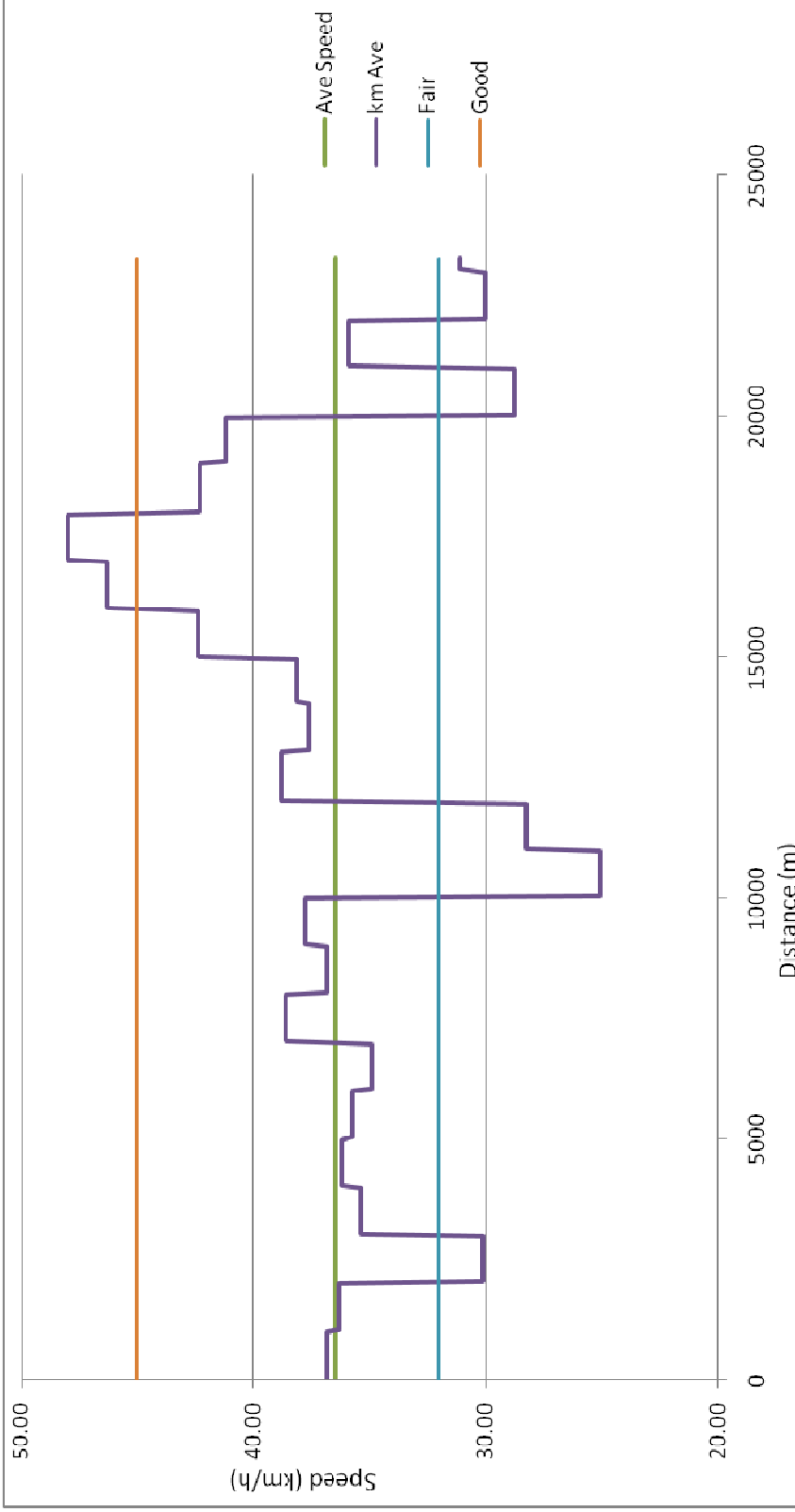


	km	%
Good	0	0%
Fair	30.2	83%
Poor	6	17%
TOTAL	36.2	100%

Overall average speed indicates fair condition
 % poor = 17%
 Final Condition = **FAIR**



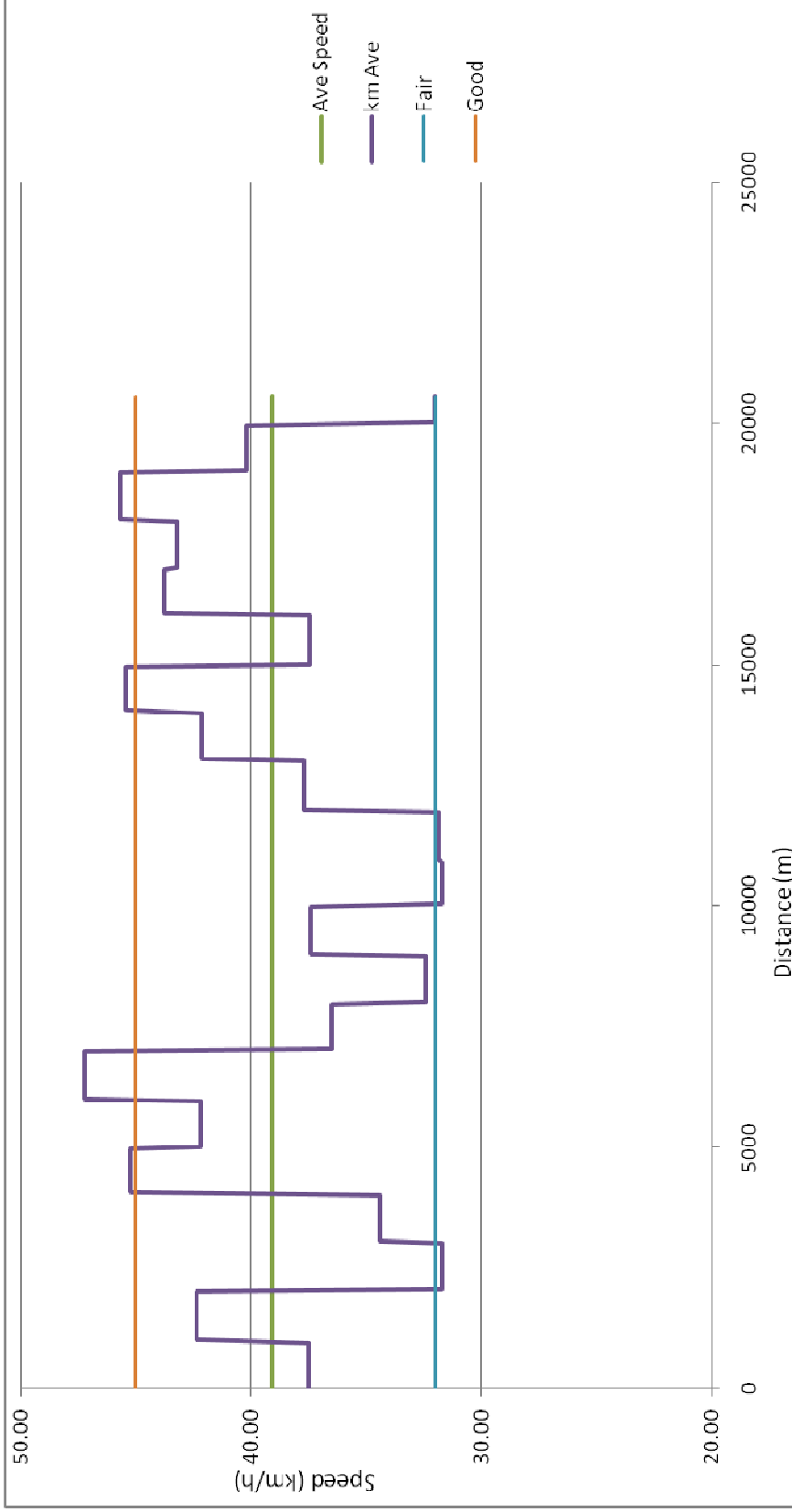
203 Bahi Sokoni - Bahi Makulu - Chimendeli



	km	%	
Good	2	9%	Overall average speed indicates fair condition % poor = 22% % good = 9% Final Condition = <u>POOR</u>
Fair	16	69%	
Poor	5.2	22%	
TOTAL	23.2	100%	



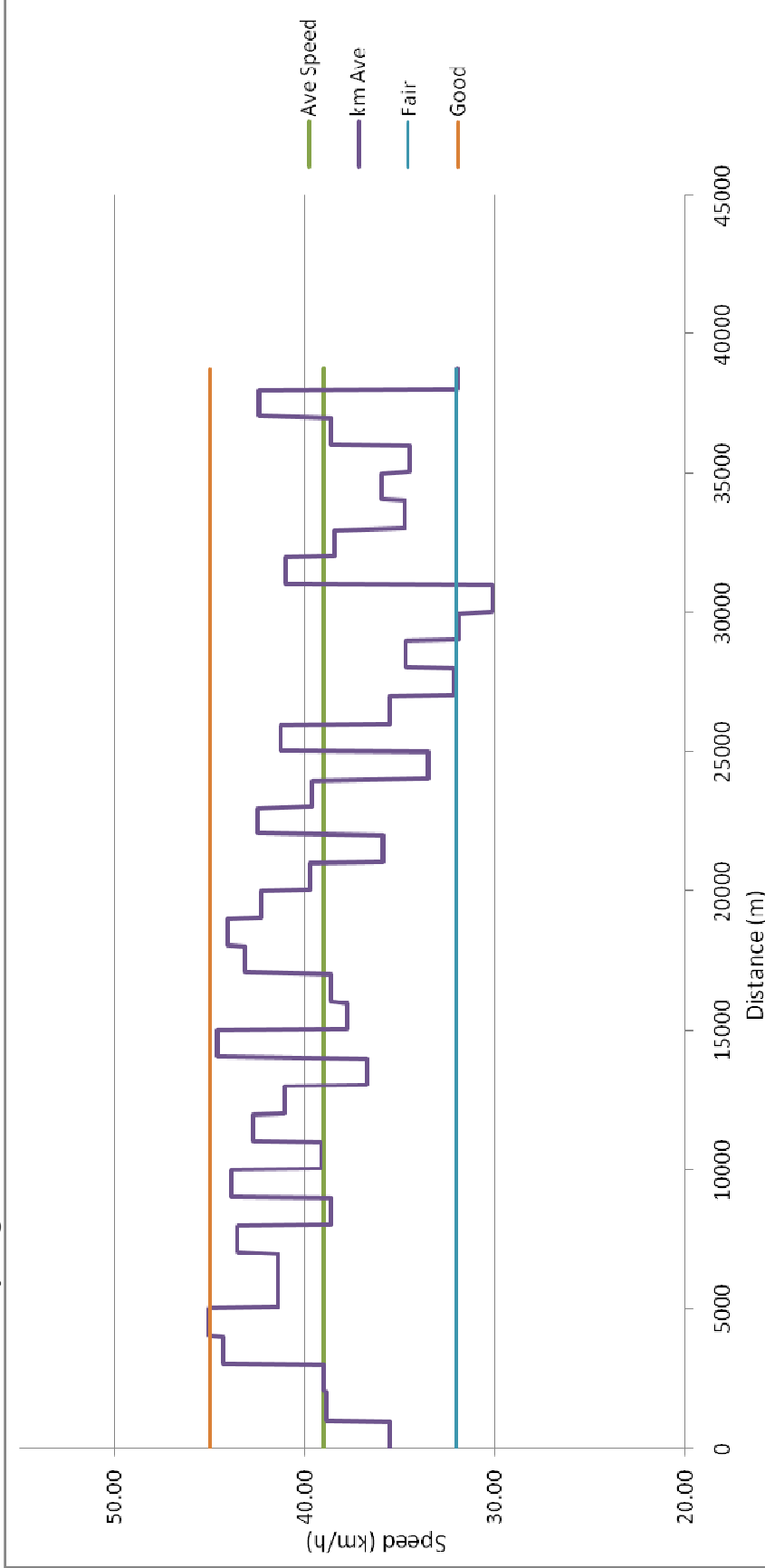
204 Ibihwa - Bankolo



	km	%	
Good	4	20%	Overall average speed indicates fair condition % poor = 15% % good = 20% Final Condition = FAIR
Fair	13	65%	
Poor	3	15%	
TOTAL	20	100%	



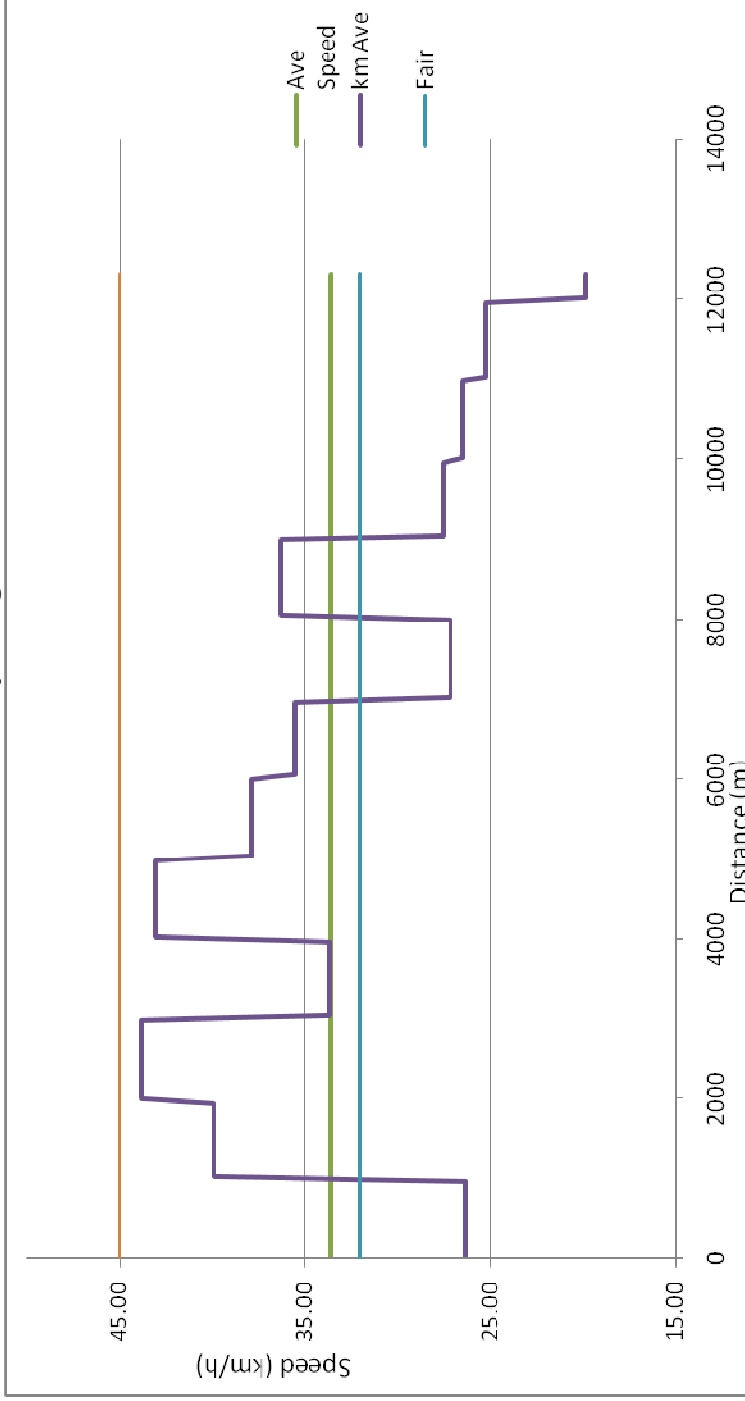
301 Mpunguzi - Chibelela - Mtitaa - Nkhome



	km	%	Overall average speed indicates fair condition
Good	1	3%	% poor = 5%
Fair	35.7	92%	
Poor	2	5%	
TOTAL	38.7	100%	Final Condition = <u>FAIR</u>



302 Nkhome - Nholi - Mpalanga

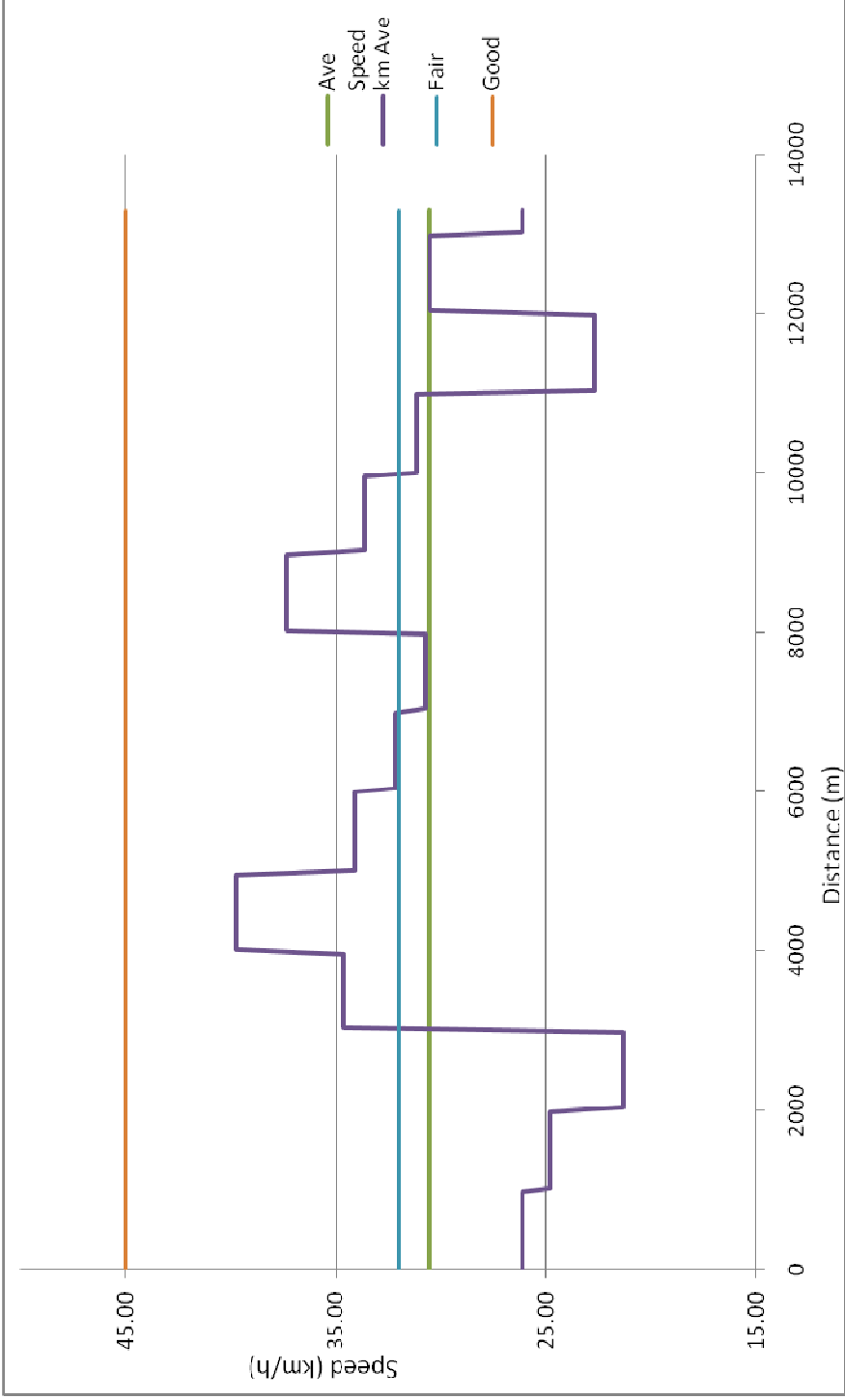


	km	%
Good	0	0%
Fair	7	57%
Poor	5.3	43%
TOTAL	12.3	100%

Overall average speed indicates fair condition
 % poor = 43%
 Final Condition = **POOR**



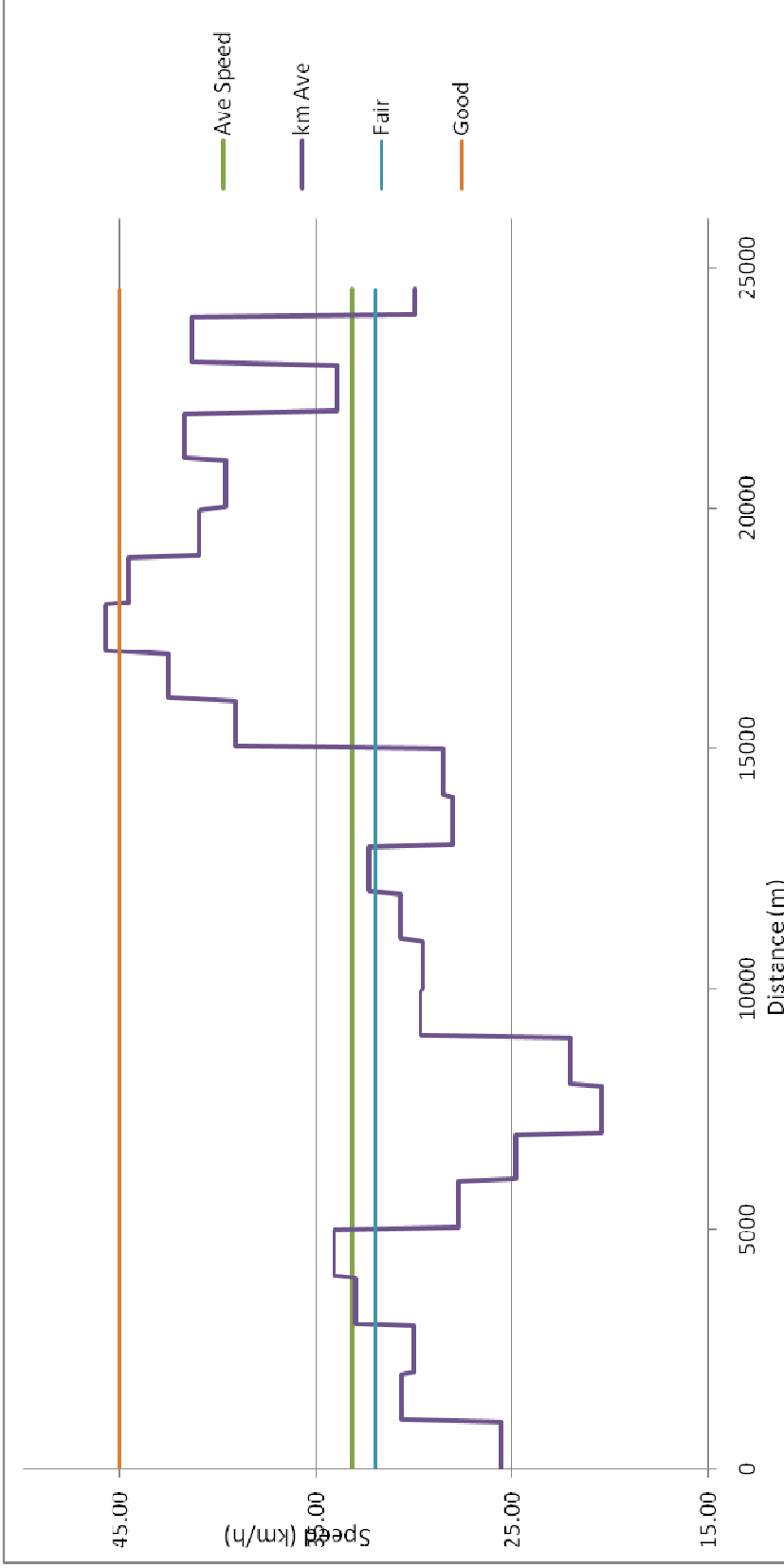
303 Nchinila - Mtitaa



	km	%
Good	0	0%
Fair	6	45%
Poor	7.3	55%
TOTAL	13.3	100%
Overall average speed indicates poor condition		
Final Condition = POOR		



304 Zejele - Magaga -Chifutuka

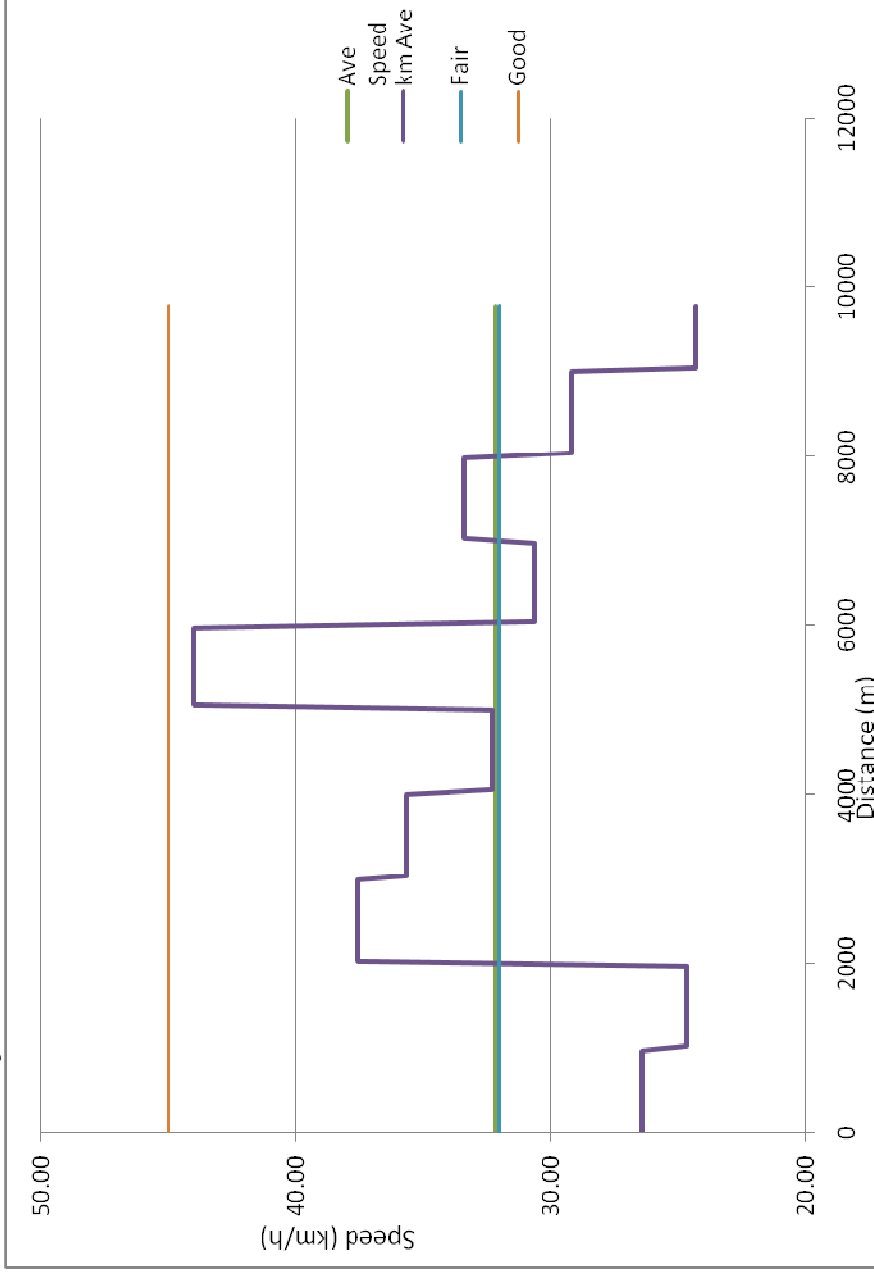


		km	%
Good		1	4%
Fair		11	45%
Poor		12.5	51%
TOTAL		24.5	100%

Overall average speed indicates fair condition
 % poor = 51%
 Final Condition = **POOR**



305 Zejele – Nondwa



	km	%
Good	0	0%
Fair	5	51%
Poor	4.8	49%
TOTAL	9.8	100%

Overall average speed indicates fair condition
 % poor = 49%
 Final Condition = **POOR**

Summary of Condition ratings using GPS road condition survey technique

Northern			
		Previous stated	GPS Survey
101	Lamaiti - Makanda	Fair	Poor
102	Kisima cha Ndege - Zanka	Good	Fair
103	Babayu - Kongogo - Lukali	Good	Fair
104	Zamahelo - Asanje	Good	Fair
105	Lamaiti - Bankolo -Mkakatika - Bahi	Fair / Poor	Fair
106	Mzakwe - Lamaiti	Good	Poor
107	Mayamaya - Mkondai	Good	Fair
108	Asanje - Duluu	Fair	Poor
Central			
201	Chigongwe - Chipanga	Good	Fair
203	Bahi Sokoni - Bahi Makulu - Chimendeli	Good	Poor
204	Ibihwa - Bankolo	Good	Fair
Southern			
301	Mpunguzi - Chibeleda - Mtitaa - Nkhome	Good	Fair
302	Nkhome - Nholi - Mpalanga	Good	Poor
303	Nchinila - Mtitaa	Fair	Poor
304	Zejele - Magaga -Chifutuka	Good	Poor
305	Zejele - Nondwa	Fair	Poor

The results of the GPS condition survey would appear to indicate that the roads have in the main deteriorated since the last stated condition survey results, which would be expected if no maintenance has taken place. However, it could also be that the GPS survey is rating the condition more harshly than the previous survey.

Appendix 2. Notice of Seminar on PMMR

27th JUNE 2011

NOTICE TO CIVIL CONTRACTORS

SEMINAR ON PERFORMANCE BASED MAINTENANCE CONTRACTS

The Dodoma Municipal Council intends to contract out maintenance works on a network of its roads using the 'Performance Based Contract' approach. This approach is different to the conventional short term contracts and will require the contractor to undertake the maintenance of the roads for a longer duration and to perform the maintenance works to agreed standards.

The Municipal Engineer's office is organizing a seminar to sensitise the contractors on the Performance Based Contracts to enable them be prepared for bidding for these works in August 2011.

The seminar will take place in **Dodoma on 15th July 2011 at the Dodoma Municipal Engineers Office commencing at 10.00 hrs.**

All civil contractors are invited to attend this important seminar.

There will be no charges for attending the seminar however all costs related to the attendance will be met by the attendees.

Eng. Makori Kisare
Dodoma Municipal Engineers Office
Tel 0784-941560

Appendix 3.

MAIN FINDINGS ON BASELINE INDICATORS

INDICATOR Benchmark	Mpwawa District	Bahi District	Dodoma District	
Distance and Travel time to services	Main means of travel to services- schools, health services etc	Foot/Walking Bicycles	Foot/Walk Bicycles	Foot/Walk Bicycles
	Average Distance to health, schools services etc.	15kms	10km	10km
	Average time to medical services	3hrs	2hr	1hr
	Average distance to markets etc.	60kms	40kms	20km
	Means of transport used to freight crops to markets	Lorries	Lorries Buses	Lorries Buses
Availability of Public Transport and duration of road closures	Communities mainly served by Lorries /Buses	Mainly Lorries	Lorries and Buses	Lorries and Buses
	Frequency of services	Unreliable		
	Fares- reasonable or expensive? Average fare to town (from farthest village)	Expensive 15,000/=tshs	Expensive 6,000/=tshs	Expensive 3,500/=tshs
	Availability of public transport in rainy season	0	0	0
	Average Duration of "Closure" during rainy season	3 moths	3 moths	3 moths
	Existence of NMTs/IMTs	0	yes	0
Maintenance works according to approved plans	Road works implemented according to approved plans	0	0	0
	Involvement of leaders in monitoring of road works	0	0	0
	Existence of local petty contractors	16	0	0
Establishment of Road Committees	Existence of Road Committees	0	0	0
	Level recommended for establishment of Road Committees	Village	Village	Village

Appendix 4.

MAIN FINDINGS ON COMMUNITY CONTRACTS

Name of Village or Ward	Number of Households (KAYA)	Existence of Road Committee	Existence of Local/Petty Contractors /CBO's	People able to work on the road		People with basic skills/ experience in construction works	
				Men	Women	Men	Women
BUMILLA				250	350	15	-
KITATI	206	-	-	210	175	10	-
KIBORIANI	800	-	-	350	400	15	-
MBUGA	638	-	16 (Petty contractors)	100	50	-	-
KIZI	638	-	-	300	400	10	3
TOTAL	3,112	-	16	1,201	1,370	50	3