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A rapid assessment of rural transport services in Singida Region, Tanzania

Abdul Awadh

2007

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The figures quoted relating to various transport costs are estimations and/or approximations based on the survey findings. Since the information was collected, there may have been changes in exchange rates, fuel prices, taxes and other costs. It is believed the figures quoted still give valid 'order-of-magnitude' indications of costs and prices and that the comparisons and conclusions made here are still broadly valid. Naturally, up-to-date data should be used for detailed transport planning and decision making.

Cover photographs
Rural transport in Singida Region, Tanzania © Paul Starkey

networking with members of the
International Forum for Rural Transport and Development

A rapid assessment of rural transport services in Singida Region, Tanzania

by

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Study undertaken in collaboration with

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as part of a project to develop a methodology for the
rapid assessment of rural transport services

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Foreword

The work presented here resulted from a World Bank contract implemented by Practical Action Consulting (PAC) and WSP International Management Consulting (WSPimc). The implementing team comprised active members of the International Forum for Rural Transport and Development (IFRTD).
The author, Abdul Awadh, was a member of a nine-person team that first met in Ethiopia in April 2005 to develop a methodology for the rapid assessment of rural transport services. The team comprised Paul Starkey (Team Leader, UK), Peter Njenga (IFRTD, Kenya), Stephen Newport (WSPimc, UK), Abdul Awadh (Tanzania), Gnanderman Sirpé (Burkina Faso), Guy Kemtsop (Cameroon), Henry Musonda (Zambia), Liz Tapper (PAC, UK) and Paul Murray (ORH, UK).

The methodology was then piloted in five regions in four countries: Burkina Faso, Cameroon, Tanzania and Zambia. Abdul Awadh was responsible for rapidly assessing the transport services in the Singida and Iringa Regions of Tanzania. He spent about six weeks visiting the two regions and he interviewed over 100 stakeholders. He was joined for about two weeks by Paul Starkey and together they travelled in the two regions, observing transport patterns, interviewing stakeholders and reviewing the key issues emerging.

The nine-person team held a review workshop in Nairobi in August 2005 to discuss the draft reports of the surveys and the lessons learned from implementing the methodology. The four national experts who undertook the surveys were then responsible for preparing detailed reports of their findings, and this document is the final report from the survey carried out in the Singida Region of Tanzania. Copies of the survey reports relating to Burkina Faso, Cameroon and Zambia are also available.

The Team Leader has prepared two documents that may be read in conjunction with this report. One provides details of the methodology employed and guidelines for its implementation. This has been published by the World Bank as an SSATP working paper entitled: 'The rapid assessment of rural transport services: a methodology for the rapid acquisition of the key understanding required for informed transport planning'. The second document provides an overview of the key findings from the five surveys and goes on to discuss the implications of these for improving rural transport services in Africa. This has been published by the World Bank as an SSATP working paper entitled: 'Rural transport services in Africa: lessons from surveys in Burkina Faso, Cameroon, Tanzania and Zambia'.

These documents can be obtained from the World Bank and can be downloaded from the websites of the World Bank and the International Forum for Rural Transport and Development (IFRTD).
Abdul Awadh worked extremely hard and conscientiously to undertake the rapid appraisal survey and to prepare this important document. It contains valuable information and ideas concerning rural transport services in the Singida Region of Tanzania. Similar surveys in other regions of Tanzania are now recommended.

The rapid methodology employed here was designed to provide, at relatively low cost, an overview of the key rural transport issues within an area that would allow informed debate and subsequent policy action. It is hoped that this report will stimulate useful discussion on how rural transport services can be improved and made more sustainable. Improved rural transport is needed to reduce poverty, improve livelihoods, increase economic growth and provide better access to health, education and other services. It will be up to the various readers of this document to move the debate forward, and help to fulfill the vision of a virtuous circle of improving rural transport and a better quality of life for rural families.

Paul Starkey
Reading, October 2007

Acknowledgements

This study has exposed me to understanding rural transport in a typical area of Tanzania. It has brought out the true picture of rural transport in Iringa region but more specifically in Iramba District, whose headquarters are 25 kilometres from a major trunk road. One needs to carry out such a study to be able to appreciate the rural transport demands and the available means which are affordable to the majority of the rural poor.

By working as a team with the consultants from the other countries of Burkina Faso, Cameroon and Zambia as well as the IFRTD under the leadership of the Team Leader of the study, Paul Starkey, I have managed to assess the rural transport situation in this part of Tanzania and hope that this report will assist in planning of the transport system in this locality..

I could not have done this assessment without support from the various officials in the Singida Region Administrative Secretariat Office and the Iramba District Council. The other group of people who I wish to extend my acknowledgment to is the private operators and services providers of Singida region and the officials from institutions based in Dar es Salaam especially Mr. Richard Musingi of the then Presidents Office Regional Administration and Local Government (now Prime Ministers Office Regional Administration and Local Government), Mr. Bathlomeo Rufunjo of the then Ministry of Transport and Communications (now Ministry of Infrastructure Development) and Mr. Dieter Schelling of the World Bank who shared with me their time and minds despite their tight schedules.

Lastly, I wish to recognise the patience that my family had when I had to travel for many days and worked long hours when carrying out the study.

Abdul Awadh
Dar es Salaam, October 2007

List of acronyms

IFRTD	International Forum for Rural Transport and Development
IMT	intermediate means of transport
km	kilometre
km^2:	Square kilometre
NGO	Non Governmental Organization
ORH	Operational Research in Health (UK consulting company).
PAC	Practical Action Consulting, UK
RTS	Rural Transport Services
SSATP	Sub-Sahara Africa Transport Policy Program (administered by the World Bank)
Tsh	Tanzania shilling. USD 1 = Tsh 1100 (approx) at time of survey
UK	United Kingdom
US	united States
USD	United States Dollar
WSPimc	WSP International Management Consulting (WSP is a group of companies)

Websites

The following websites concern some of the organisations mentioned in this report. Some or all of the summary documents, survey reports and methodology guidelines prepared as part of this project can be seen and downloaded from the first three sites listed

www.worldbank.org/afr/ssatp
www.ifrtd.org
www.animaltraction.org
www.practicalactionconsulting.org
www.wspgroup.com/imc

1. EXECUTIVE SUMMARY

The Sub-Saharan African Transport Policy Program (SSATP), administered by the World Bank, is developing a methodology for rapid assessment of rural transport situation in a country to analyze the affordability of the rural transport services and the institutional and legal environment for the provision of such services, the target being passenger and freight transport for distances of 5-200 km, encompassing much rural transport, but excluding within-village transport and long-distance national transport and international corridors.

The British-based consultancy firm Practical Action Consulting (formerly ITC) working in association with WSP and members of the International Forum for Rural Transport and Development (IFRTD) was assigned to develop the methodology and test it in four countries (Burkina Faso, Cameroon, Tanzania and Zambia). The methodologies developed by the consultants include interviews with stakeholders (transport users, providers, suppliers and national authorities), and traffic and movement surveys in selected parts of the countries.

This report contains the findings of a study undertaken in Singida region of Tanzania to test the methodology.

The country's policy on Rural Transport includes improvement of rural transport infrastructure, promoting the use of non-motorised transport, organising the rural households to contribute (through participatory approach) to improvement of the infrastructure and encouraging the private sector to participate in the provision of competitive and affordable rural transport services to rural communities.

The legal and regulatory framework exists for rural transport services and includes annual inspection and licensing of all types of vehicles mandatory insurance and timetable for passenger service vehicles. Speed limits have been set at 50km/hr and 80km/hr for buses in the urban and rural areas respectively. The enforcement of the regulations is weak. Barriers are found on certain places for checking adherence to regulations but on many instances they are ineffective, and bribes (in many instances small amounts of TShs 500 to 1000 equivalent to USD 0.4 to 1.0) are given to clear the way. These amounts are not significant and the operators do not complain much about them.

Singida region is located in central part of Tanzania with a large plateau of an average elevation of 1000 meters extending from the centre towards the south and south west of Singida township (regional headquarters), while in the north west of the region, the Iramba plateau rises to an elevation of about 1,500 meters above sea level. A detailed survey on rural transport services was done in Iramba district but the study covered the whole region in terms of obtaining (in estimates) basic information of rural transport services.

Rural transport infrastructure includes regional, district, feeder and unclassified roads with a total of 3,744 km. About 50% of the network is in poor condition. Motorised transport in some parts of rural areas of Singida is provided by old vehicles (buses, 4x4s pick-ups and station wagons, and lorries/trucks). The fares charged for a distance of 30 km on a bus/lorry/pick up is TShs. 2500 equivalent to USD 2.2. Similar journey on good roads in nearby regions could cost about TShs 1000 equivalent to USD 0.9.

Transport in most rural areas is done mostly by using bicycles, animal drawn carts and walking. Loads weighing between 5 to 20 kg are carried on heads or using donkeys as pack animals while

bicycles carry loads of up to 100 kg. Heavier loads are transported using oxen/donkey carts or very rarely on pick up trucks. Traders in villages use bicycles to transport commodities from the district centres to their shops. Sick people are transported on bicycles and stretchers to health centres and, if referred to higher-level hospital, then they have to be taken to the nearest village where there are public transport or ambulance services. Teachers and other extension staff working in rural remote areas walk for many hours to reach their duty stations. They can not afford to own their own means of transport such as a bicycle or a motorcycle selling for between USD 55 and 80 for bicycles (available in many small town centres) and USD.1500 to 2000 for motorcycles (Chinese make- 125cc available in Dar es Salaam) as the salaries paid to them are low and there are no credit schemes to enable them pay in instalments.

Bicycles are used for travelling long distances with a typical journey length being 10 km. Occasionally they are used for longer distances. Men mostly use them but few women also use them for travelling short distances.

Walking is very common and both men and women walk between 5 km to 20 km. In rare cases the distance can be longer. Low income is given as reasons for walking even where there are motorised transport services.

Animal drawn carts are common in the plateau area where the terrain is flat and rolling. There have been initiatives of improving the carts by introducing brakes so as to try and use them on hilly terrains.

Pack animals (donkeys) are used in certain areas of Singida region. They have been in existence for many years but their use is still minimal.

A central railway line from Dar es Salaam to Tabora crosses Singida region. There are a few railway stations in the rural areas but the rural community does not use it for their daily travel needs. The frequency of the passenger train is low (thrice per week). They use it when they wish to travel long distances.

People living along the shores of Lake Kitangiri in the northwest part of Singida region use boats and canoes to travel to the neighbouring region of Shinyanga and for fishing activities. Due to limited time, the study team did not get detailed information on this transport mode.

The findings of the study may be summarised as follows:

- There are clear policy directions on rural transport and they are being implemented in Singida region to a certain scale.
- There is a legal, regulatory and institutional framework controlling rural transport services. However, the enforcement of the regulations is weak.
- The low income of the rural community impacts on affordability of the transport services in the rural areas.
- Bad road conditions discourage the private sector to provide rural transport services. The high operation cost of the vehicles due to the bad condition of roads makes the business unprofitable.
- The high cost of bicycles and motorcycles compared to the income of the workers has resulted in low ownership levels of bicycles and motorcycles amongst the workers in the rural areas. Prices could go down considerably if the import duties and VAT charged on them (25% and 20% respectively) will be abolished or lowered.

2. SURVEY BACKGROUND AND METHODOLOGY

The methodology used in this survey was developed in 2005 by an international team that included the author of this country report. The Sub-Saharan African Transport Policy Program (SSATP), administered by the World Bank, contracted the British-based consultancy firm Practical Action Consulting (PAC, formerly ITC) working in association with WSP and members of the International Forum for Rural Transport and Development (IFRTD) to develop a methodology for the rapid assessment of rural transport systems. The guidelines specified passenger and freight transport for distances of 5-200 km, encompassing much rural transport, but excluding within-village transport, long-distance national transport and international corridors. Under the contract, a multidisciplinary team met in Ethiopia in April 2005 to devise the survey methodology. Four National Experts and the Team Leader implemented the methodology in Burkina Faso, Cameroon, Tanzania and Zambia. The team reconvened in Kenya to review the methodological lessons and national findings.

Rural transport systems operate on hub and spoke systems at several levels. Key hubs are provincial towns, market towns and villages. The various spokes and hubs have characteristic combinations of transport, including trucks, buses, minibuses, pickups and intermediate means of transport (IMTs). The methodology includes a survey of transport types, operators, users and regulators at sampled hubs and spokes, stratified by hub hierarchy and remoteness. The methodology requires one month to implement and provides a rapid overview of rural transport systems, highlighting key constraints, stakeholder views and proposals for improvements.

A region, representing about 5% of the country, is chosen where the transport catchment area corresponds approximately to administrative boundaries. Within this area, interviews are held with the regulatory authorities (local government, police) at provincial, district and village levels. Operators, suppliers and repairers of transport devices (motorised and motorised) are interviewed and operating costs and fares recorded. Interviews are conducted with users (and potential users) of transport including farmers, traders, employees, household managers, school authorities, pupils, health service providers, patients and marginalised people. Five interviews (at least two with women) are needed per stakeholder category and are stratified for isolation. Traffic counts (including pedestrians and IMTs) are carried out on selected provincial, market and village spokes on market and non-market days.

The report author (not enumerators) undertook all the semi-structured (‘rapid rural appraisal’) interviews. As the survey progressed, information from different sources was triangulated and anomalies investigated. The survey guidelines stress the importance of poverty focus and crosscutting gender, safety and HIV/Aids issues. Complementary national level document reviews and interviews were undertaken to ascertain the positions of key institutional stakeholders, the policy and regulatory frameworks and the availability of relevant data. Full details of the methodology and the data sheets used are available in the project inception report (Starkey, 2005) and final report on the methodology (Starkey, 2007).

In undertaking the methodology, in Singida Region the author travelled approximately 345 kilometres and undertook approximately 30 interviews with a wide range of stakeholders. Traffic counts were arranged on three types of roads, with counts on both market and non-market days, in locations where there was a significant market-day effect.

- One provincial spoke: Misigiri – Kiomboi
- Two market spokes: Kiomboi – Kisiriri and Kiomboi - Ruruma
- Two village spokes: Kisiriri – Tilya and Ruruma - Ulemo.

Because of the limited time and resources due to having to do the study in two areas of Tanzania, the area chosen in Singida region was Iramba district, about 100 km from Singida town with varying topography including a rift valley. It was agreed to reduce the methodology to fewer interviews, less stratification of remoteness and replication. The results are therefore for a part of Iramba district.

3. INTRODUCTION TO THE SURVEYED AREA

Singida region is situated in the central part of Tanzania (see Figure 1) and it lies between latitudes 3º 52' and 7º 34' south and longitudes 33º 27' 5" and 35º 26' east. It borders with Arusha region to the north, Dodoma region to the east, Mbeya and Iringa regions to the south, Tabora region to the west and Shinyanga region to the northwest.

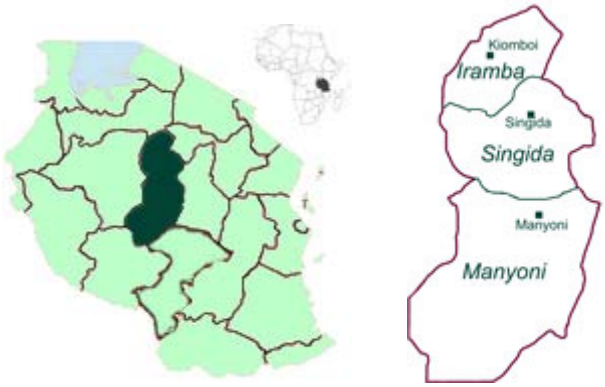


Figure 1a (left). Sketch of Tanzania showing Singida Region
Figure 1b (right). Sketch of Singida Region showing rural districts

3.1 Area, Terrain and Topography

The region covers an area of 49,341sq.km of which 23% is arable, 40% is used for grazing, 36% is forests and woodland, 1% is water body. Topographically, its landscape drops eastwards to the rift valley and westward to the Wembere depression. A large plateau of an average elevation of 1000 metres extends from the centre towards the south and southwest of Singida township, while in the northwest of the region, the Iramba plateau rises to an elevation of about 1,500 metres above sea level.

3.2 Administrative Arrangements

Singida region is administratively divided into four districts, namely Singida Urban, Singida Rural, Manyoni and Iramba, which are further sub-divide into 21divisions, 85 wards and 346 villages as shown in the Table 1 below:

Table 1.Singida Region administrative arrangement

DISTRICT	DIVISIONS	WARDS	VILLAGES	ADMINISTRATIVE TOWN
Singida Urban	2	13	19	Singida
Singida Rural	7	25	133	Singida
Manyoni	5	21	76	Manyoni
Iramba	7	26	118	Kiomboi
Total	**21**	**85**	**346**	

3.3 Population and Settlement Pattern

According to the 2002 census, the region's population was 1,086,748 people with the growth rate of 2.3%. The distribution of the population varies within the districts with high concentration of people in Iramba and Singida Rural Districts where most of the economic activities take place. The average number of people in a household ranges between 4 and 5.

Table 2. Area, population and number of households in the districts of Singida Region

DISTRICT	AREA SQ. KM.	AREA (%)	POPULATION (2002)	POPULATION (%)	HOUSEHOLDS
Singida Urban	657	1.3	115,000	10.6	24,510
Singida Rural	12,164	24.7	402,000	36.8	78,490
Manyoni	28,620	58	206,000	18.9	42,890
Iramba	7,900	16	368,000	33.7	71,680
Total	**49,341**	**100**	**1,091,000**	**100**	**217,570**

3.4 Climate and Seasonality

A large part of Singida region is arid, and the rainfall amount decreases from north to south of the region. The average annual rainfall ranges between 500 – 800 millimetres. The highest and more reliable rainfall is recorded in the northern part of the region where rainfall exceeds 750 millimetres in most seasons. The western part of Manyoni district has the lowest rainfall. In normal circumstances, rainfall usually takes place from mid November ending in April or early May every year.

Temperature in the region ranges between 15ºC and 30ºC depending on season and altitude. The coldest period in the year is in July while the hottest period is in October and November. Relative humidity at noon rises from 36% in the driest month to 58% in the wet season. Wind speed is usually highest in Singida and gets as particularly high during the dry season, which is between May and October.

3.5 Ethnic Diversity and Religious Makeup

The major tribes in Singida region are the Nyiramba, Nyaturu, Kimbu, Gogo, Sukuma Isanzu, Taturu and Mangati. The others are Barbaig and Hadzabe who are immigrants to the region. The two main religions are Christianity and Islam.

3.6 Agriculture

Agriculture is central to Singida regional economy and is expected to be so for many years. There is considerable potential for agriculture development in Singida region given the vast arable land of approximately 1.1 million hectares representing 23% of the total land area. Only about 30% of the arable land is being cultivated. Over 90% of the population of the region is either, directly or indirectly, engaged in agricultural production and about all food consumed in the region is produced locally. The sector is also the biggest employer of the labour force in the rural areas and provides raw material for the expanding of local industrial sector.

The region is semi-arid and therefore great emphasis is put in growing of drought resistant crops with short maturity qualities. Women who are about 51% of the total population contribute most of the agricultural labour. Mixed farming is mostly practiced by growing crops and rearing livestock. Most farmers use hand hoes, and as a result the farms are small in size. Major food crops grown are maize, sorghum, millet, paddy, cassava and sweet potatoes while the cash crops grown are sunflower, cotton, tobacco, groundnuts, beans, and onions.

3.7 Major Economic Activities

Apart from agriculture other main economic activities in the region are livestock keeping, natural resources, mining, industry and trade. Most people own livestock. The livestock kept includes cattle, donkey, sheep, goats, chicken and pigs. Singida district ahs the highest cattle population followed by Iramba and Manyoni. The livestock also contributes to manure and animal traction. Natural resources that are contributing to the economy of the region include beekeeping, fishing, and agro-forestry. About 35% of the total land area in the region is covered with different trees species.

Commercial activities including trading are still minimal and contribute very little to the regions GDP. Trading is done in the villages and during market days at specific locations, on specific dates all round the region. These markets attract large number of the communities living near the locations and the traders travel from regional/district centre to the markets. .

3.8 Brief Information on Social Service Provision

The social services in the region are provided by the local governments with support from the central government, the private sector and donor agencies. The status of the education and health facilities in the region is as follows:

3.8.1 Education

There are 411 Primary schools, 32 Secondary schools ('O' Level), 3 High Secondary schools ('A' Level). The Primary schools are at village and ward levels, the Secondary schools are mostly in towns and large villages and the High Secondary schools are in towns.

The mean distances to primary and secondary schools as obtained from the population census of 2002 is 1.9 km and 9.5 km respectively.

3.8.2 Health

The table 3 below shows the number of health facilities in the region and ownership of the different types of the facilities:

Table 3: Health facilities in Singida Region

Type of health facility	**Government owned**	**Voluntary organisation owned**	**Privately owned**
Hospitals	5	4	0
Health centres	12	2	0
Dispensary	100	28	10
Total	**117**	**34**	**10**

Approximately 82% of households live within a distance of six (6) km from a dispensary/heath centre and the mean distance to a hospital is 12.8 km.

3.9 Mobile Phone Coverage

There are three mobile phone service providers offering the service in Singida region (the same is so for the whole country). The mobile phone services (by all three companies) are very good in Singida town. In the other urban areas of Manyoni and Kiomboi there is limited services, depending which service provider has established a network in the particular area. There are no

mobile phone services in the villages except to a few which are along the trunk roads and near the urban centres.

3.10 Electricity Coverage

Electricity supply in the towns of Singida, Manyoni and Kiomboi is steady and the source is the national electricity power grid (hydroelectric). There is also electricity supply in some of the villages situated along the trunk roads where the main electricity lines pass. Statistics show that only 5% of the households in Singida region are connected to the electricity grid.

3.11 Seasonality

The region experiences varying weather and climate during the year. This farming activities start in the month of October when the short rains start and continues to February. The harvest season for major agricultural produce is during the months of May June and July. Livestock business is continuous throughout the year. The transport demand for the agricultural produce increases during the harvest time but for passenger travel is almost same throughout the year with variations on the dates of the month, more people travelling during end of months (collection of salaries from district centres, etc). Demand for travel to 'monthly markets' is also the same throughout the year

4. SURVEY RESULTS

4.1 Policy and Regulatory Environment in Rural Transport Field

The following chapters discuss the various policies, strategies and regulatory framework in the country that relate to rural transport:

The National Transport Policy- 2003

The Rural Transport Policy Directions in the National Transport Policy are to:

- Improve rural transport infrastructure
- give development of rural infrastructure a deserving emphasis during planning and allocation of transport resources at the national level;
- involve the communities in infrastructure planning, financing and maintenance;
- development of capacity in terms of skills and other resources to enhance quality of infrastructure;
- to increase public and private sector investment in village and district access roads;
- organising the households through participatory approach to contribute to the improvement of their infrastructure;
- encourage use of non-motorised means of transport (NMT);
- sensitise the use of intermediate means of transport among women in rural areas
- encourage private sector participation in the provision of competitive and affordable rural transport services to rural communities.

National Development Vision – 2025

The National Development Vision – 2025 sets the long term development goal of the country as to raise the standard of living and the quality of life of the people through the enhancement of both the productive and non-productive sectors of the economy from the present level per capita Gross Domestic Product of about USD 210 to the level of typical medium developed country, with an estimated per capita Gross Domestic Product of USD 2,500.

National Strategy for Growth and Reduction of Poverty (NSGRP)

The National Strategy for Growth and Reduction of Poverty (NSGRP) adopted by the government in 2005 provides overall guidance and a framework for coordination and supervision of the implementation of policies and strategies for poverty reduction. However, the low level of individual incomes, particularly in the rural area a greatly undermine quick achievements. This coupled with absence of a conducive environment for the private sector investment has affected investment in physical infrastructure, particularly transport infrastructure.

The NSGRP focus is therefore to put emphasis on poverty reduction by way of increased investment in the development of human resources, enhancement of productive sectors especially agricultural productivity, improvement of infrastructure, promotion of private sector development, enhancement of competition, environmental sustainability, good governance and ensure the sustainability of the overall improvement in macro economic stability. The development and/or improvement of transport infrastructure and services is therefore crucial to the attainment of these objectives.

In view of these problems, transport sector development is indisputably a critical factor and an impetus to poverty reduction.

Rural Development Policy (RDP)

The main objectives of the rural development policy are the achievement of a broad based, widely shared and dynamic rural economic growth and eradication of poverty, consequently raising the living standards of the rural population.

The Road Act (Draft)

The Roads Act 2003 (now in draft form) aims at reviewing and repealing the Highways Ordinance Cap 167 last amended in 1969 to bring it up to date. The original Act as amended by Amendment Act No 40 of 1969 did not allow for the financing and management of road works and thus making it difficult to identify adequate resources to develop the road network in the country. The draft new Act recognises the Roads Tolls (Amendment) No. 2 Act of 1998 establishing the Roads Fund, and which specifically caters for the source of funds for the maintenance of the whole classified road network. The Act further recognises the Executive Agencies Act, 1997 that established the Management Advisory Boards for TANROADS at National Level. In repealing the Highways Ordinance the Act seeks to establish the National Roads Board at National and Regional level to cater specifically for the network development and management with the service purchaser on one hand while the service provider becomes the Road Fund Board on the other. It furthermore establishes clear relationships with other stakeholders within the domain of the sector thus setting responsibilities to each of the users of the roads network. The Act clearly specifies that the Central Government (MoW and PORALG) is handling the administration of the roads network in the country while other institutions (TANROADS, LGAs and others that may be established) as managing the roads network. The role of administering the road network is different from the role of managing the same. The first has control over the network while the later makes the decisions as what to do on daily basis.

The draft Roads Act has also provided for ‘community roads’ earlier known as ‘unclassified roads’, which will link villages to villages and will be of short distances. This will ensure that these community roads that are crucial for rural movement are recognised and cared for.

Regulatory Environment

The surface and maritime transport sub-sector is regulated by the Surface and Maritime Transport Regulatory Authority (SUMATRA) which has been recently established to take over from many regulatory bodies that existed before. The authority has many roles including licensing of operators, setting of standards and ensuring that there is a level playing field for operators to provide transport services. SUMATRA is a multi-sector regulatory agency established by Act of Parliament No 9 of 2001. It started its operations in 2004 and is responsible for regulating road, rail and water transport. In terms of land transport it is now responsible for:

- Registering and licensing commercial vehicles
- Determining, monitoring and regulating charges and tariffs for road transport services
- Formulating and reviewing codes of conduct for transport operators and users
- Liaising with Police, Ministry of Public Safety and Security and Ministry of Infrastructure Development on issues affecting road transport
- Developing rules and regulations in road transport.
- Overseeing investigation in road transport accidents.

As a relatively new authority, with wide responsibilities, it is only beginning to address its new regulatory roles, and most regulation of transport is still based on the procedures established under the Transport Licensing Act of 1973. This included a legal and regulatory framework for rural bus services (which now include minibuses). The Regional Licensing Authorities were given discretionary power to make licenses conditional on the operating to timetables on specific routes and charging fair and reasonable fares. The regulation of fares included the provision to set these at a level to 'prevent wasteful competition with alternative forms of transport'. Passengers were allowed to carry small amounts of luggage free of charge, with agreed tariffs for excess baggage. Under the discretionary powers, rural taxis (such as old Landrovers) could be licensed to operate without timetables on specific routes where there were no regular bus services. Large trucks were not recognised as passenger service vehicles and were not regulated for routes or timetables. Regulation for safety has been legislated for in other acts, and includes the condition that buses should not exceed 80 kph in rural areas.

Non-motorised means of transport (bicycles and carts) were not mentioned in the 1973 Transport Licensing Act and so have not been licensed or regulated. Motorcycles require licensing and insurance. Motorcycle taxi services have not developed yet, and motorcycles are not recognised as public service vehicles.

There are new proposals for a Transport (Road Passenger) Licensing Regulations Act (under discussion in 2007). This appears aimed mainly at urban and inter-urban services and includes many provisions relating to safety (working hours, no standing passengers, first aid kit), professional standards (uniforms, identification, ticketing), vehicles (age, seating capacity), passenger rights (20 kg baggage allowance), routes, fares and competition.

The existing costs of compliance with regulations include the cost of the operating licenses (issued by the regional transport licensing authorities), insurance and annual flat-rate tax. Examples of the costs of compliance with vehicle licensing regulations are given in Table 4.

Table 4 Costs compliance with vehicle regulation in Tanzania

Document, fee or tax	*Rural taxi*	*Bus*	*Light truck*
	USD	*USD*	*USD*
Driver license	9	9	9
Operating license	236	91	91
Insurance (Third party)	68	227	273
Local parking fees	11	11	11
Annual flat rate operating tax (based on vehicle capacity)	86	182	182
Total	**411**	**520**	**565**

Some examples of passenger fares and freight costs in Singida Region are provided in **Annex 4**. For passengers, the lower prices of USD 2 cents a kilometre are found on the long distance routes on the main roads. Due to price regulations, most rural bus and rural taxi services charge in the region of USD 3–5 cents a kilometre for both short and long-distance journeys. The highest prices are found on the poorest roads, and at USD 5 cents a kilometre, this is more than twice the price of the travel on the trunk roads. The fares charged by bicycle taxis are quite variable, but in the same order of magnitude as motorised services at USD 3-5 cents a kilometre. The hire of an ox cart to carry a sick person is TZS 2000 for a 10 km journey, which works out at USD 18 cents a kilometre. As for freight, rural taxis charge USD 0.30-60 per tonne-km, with the higher prices for shorter distances. It costs USD 0.60-1.30 per tonne-km to hire a pickup or 4x4 to carry a tonne of grain, with the higher prices relating to shorter distances. Transport by intermediate means of transport is very variable, with tonne-kilometre costs highly dependant on how much is carried (bicycles may carry 25-100 kg, ox carts 300-500 kg or more. However they are mainly of a similar order of magnitude to motorised costs.

Rural transport service is regulated to some extent by licensing the vehicles that provide the transport services. The types of vehicles that are licensed are the buses that are designed to carry passengers and the bush taxis (pickup/4x4 trucks). The trucks that are providing services are not licensed for carrying passenger although they are used very much for ferrying people and their goods to the monthly markets. There are no any regulations controlling the use of Intermediate Means of Transport and Non- Motorised Transport.

Safety of rural transport services users is not a big concern to the authorities as there is little motorised traffic in the areas and the roads conditions are such that the speeds of the vehicles are low. However, there are few reported cases of accidents in the rural areas including those involving cyclists and animal drawn carts. The following table provides a summary of the Policy and Regulatory Framework in the country and the survey area:

There are very few barriers on the rural roads to check on regulatory matters and are not effective due to bribery, However the amount involved in bribery is insignificant (on many instances TShs 500 to 1000 equivalent to USD 0.4 to 1.0) and is not affecting the transporters.

Table5. Summary of policy and regulatory framework relevant to rural transport

Policy and Regulatory Framework Checklist				
Study Location: Singida Region				
Date: July/August 2005				
	Exists	**Implemented**		**Remarks**
		National	**Survey area**	
Policy				
Is there a National Transport Policy? If so does it address rural transport issues?	**Yes**	* * * * *	* * *	The policy was launched in 2003 and its implementation is encouraging.
Is there a Poverty Reduction Strategy Policy (PRSP)? If so, does it address rural transport issues?	**Yes**	* * * * *	* * * * *	The recent NSGRP emphasises on rural transport improvement
Does a Rural Travel and Transport Policy (RTTP) exist?	**Yes**	* * * * *	**In small scale**	The rural transport policy is covered in the National Transport Policy
Does a road fund exist?	**Yes**	* * * * *	* * * * *	Allocates funds to all classified roads but not to the community roads.
Does decentralised road funding exist?	**No**			
Agriculture policies relevant to rural transport	**Yes**	* * * * *	* * * * *	Agriculture Development policy provide directions on improving rural roads for evacuation of crops
Gender policies relevant to rural transport	**No**			
HIV/Aids policies relevant to rural transport:	**No**			
Environment policies relevant to rural transport	**No**			The environmental guidelines for the road sector exists but do not discuss rural transport
Regulatory frameworks				
Freight regulation				
Freight fare regulation	**No**			
Route regulation	**Yes**	* * * * *	* * *	The regional transport licensing authority allocates routes to buses
Tax incentives	**No**			
Freight Safety				
Speed limits	**Yes**	* * * * *	* *	With few vehicles in the rural areas the police are ignoring such issues as speed limits
Prohibition of passengers	**Yes**	* * * * *	* *	Lorries are not allowed to carry passengers

Loading	**Yes**	* * * * *	* *	Axle load limits are not enforced in the rural areas
Axel load control	**Yes**	* * * * *		There are no vehicles weighbridges in rural areas
Vehicle licensing	**No**			Annual licenses have recently been abolished
Driver regulation	**Yes**	* * * * *	* * * * *	Drivers are allowed to drive freight vehicles when holding classes 'C' and 'D' driving licenses.
Public transport regulation				
Price fare regulation	**No**			The country has adopted a free market policy
Route regulation	**Yes**	* * * * *	* * * * *	Number of passengers and timetable
Tax incentives	**No**			
Licensing	**Yes**	* * * * *	* * * * *	The buses have to be licensed annually after undergoing a roadworthiness test.
Public Transport Safety				
Passenger numbers	**Yes**	* * * * *	* * *	Most of the buses operating in rural areas carry more passengers than allowed.
Speed limits	**Yes**	* * * * *	* *	
Safety belts	**Yes**	* * * * *	*	Only the driver and passengers on the front seat of a vehicle is supposed to put on a safety belt. Passengers in a bus are not compelled.
Loading	**Yes**	* * * * *	* * *	The number of passengers is limited to number of seats
Driver regulation	**Yes**	* * * * *	* * * * *	Drivers are allowed to drive passenger vehicles when holding a class 'C' driving licence. .
IMT regulation				
Safety	**No**			
Prices	**No**			
Vehicle licensing	**Yes**	* * * * *		Only passenger services vehicles are licensed.
Incentives	**Non**			

Animal Welfare	**Yes**	* * *	*	There are veterinary clinics in selected centres.
Other Issues				
Vehicle regulation				
Import regulation	**Yes**	* * * * *		
Specifications	**Yes**	* *		The imported used vehicles from some countries should have a certificate of worthiness
Vehicle Testing	**Yes**	* * * * *	*	Mandatory annually. Weak enforcement
Other operator costs (road tolls and other levies)	**Yes**	* * * * *	* * * * *	Fuel levy of approx. USD 0.8 per litre is colleted for funding road maintenance
Road safety (infrastructure)	**Yes**	* * * * *	*	Axle load control is effective.
Driver licensing regulation	**Yes**	* * * * *	* * * * *	
Local government bye laws	**Yes**		* *	To control overloading
Local fines	**No**			
Terminal fees	**Yes**		* * *	Buses pay each time they use formal bus terminals in towns
Others				
Local road groups				
Formal Driver / Owner Transport Association	**Yes**			
Informal Frameworks e.g. Cartels				
Informal Driver / Owner Transport Association	Yes	****	**	Existing associations are weak. They are not involved fully in matters concerning them.
Public / private competition - does this exist?	No			The government has pulled out of doing business
Informal road checks	No			
Local road groups	No			

Note: Since implementation is seldom an all-or-nothing case, a star rating has been used, with five stars indicating major implementation, one star minimal implementation, and blank meaning no implementation.

4.2 Views of Key Informants (Stakeholders)

The views of the key informants on policy and regulatory framework are as follows:

National Authorities:

- The policies recognise the problems of rural transport and do provide an environment for the private sector to be involved in solving the problem.
- The enforcement of the regulations is weak. Regulations are under many authorities.

- Lack of policy leads to lack of direction. There is a need for a comprehensive Rural Transport Policy

National Authority responsible for PRSP:

- Poor rural transport service is regarded as among the main contributing factors to poverty. The failure to address rural transport problems in a systematic manner is due to lack of clear policy on rural transport.
- The Poverty Reduction Strategies include improvement of rural transport infrastructure and services

Regional Authority:

- There are regulations pertaining to transport services covering the routes allocations, types of vehicles for different services and the regional licensing authority is mandated to ensure compliance by the services providers.
- Associations of transporters are not formalised (registered) but are helping in controlling the unfair competition amongst the transporters. The abolition of road licenses on cargo trucks may motivate more people to venture in the transport business. It is important to regulate the transport industry but not to control tariffs
- Transport services are limited in some areas due to:
    - Poor road conditions
    - Low demand
    - Poor security for travellers (occasional banditry on roads)

District Authority:

- There are local byelaws for preserving rural transport infrastructure especially bridges (limitation of weights). There is a very low motorised transport services and more IMTs are being introduced. However the donkeys have been affected by the African horse sickness.

Police:

- The police are enforcing the traffic laws and regulations effectively.
- No much traffic accidents are reported from the rural areas because the vehicles cannot travel fast due to bad condition of the roads. The IMTs are being used without causing much inconvenience to the motorised traffic.

Transport Associations:

- A transport providers association exists in Singida but lacks recognition by the authorities. The regional authorities do not involved the association in planning for transport services as it is considered as 'unregistered' and therefore not representing the transporters;
- There are low motorised transport services in the rural areas because of low demand and the bad condition of roads that raises the vehicle operational costs and make the business unprofitable.

Financial Organisations:

- There is a need to reconsider the conditions of credits for rural transport related businesses as the current conditions are not conducive and make it impossible for repayment of loans

Donors/World Bank:

- The existing policies and strategies on road management are somehow unclear especially on roles of various institutions as well as the community.

4.3 Road Network and Condition

The Singida region classified road network and its condition is as shown in Table 6 below: The trunk and regional roads are managed by the Ministry of Works through the Tanzania National Roads Agency (TANROADS) and the urban, district and feeder roads are under the jurisdiction of local governments.

Table 6: Road network in Singida region (classes and conditions)

Road Classification	Surface type	Length	Condition
Trunk	Paved	0	-
	Unpaved	602	30% good, 30% fair and 40% poor
Regional	Paved	0	-
	Unpaved	797	50% good, 35% fair and 15% poor
Urban	Paved	7.4	65% good and 35% fair
	Unpaved	186	20% good, 55% fair and 25% poor
District & Feeder	Unpaved	2,152	25% good, 25 fair and 50% poor
Total		**3,744**	

The trunk road from Dodoma to Mwanza crosses the region connecting it to the neighbouring regions of Dodoma to the east and Tabora to the west. It is an important road serving as a corridor connecting the port of Dar es Salaam and the western and northwestern regions of Tanzania as well as a transit route for cargo destined for Burundi and Rwanda. Other trunk road connect Singida region with the northern regions of Manyara and Arusha, and Itigi town with the southern region of Mbeya. Figure 2 provides and overview of the road transport in the region.

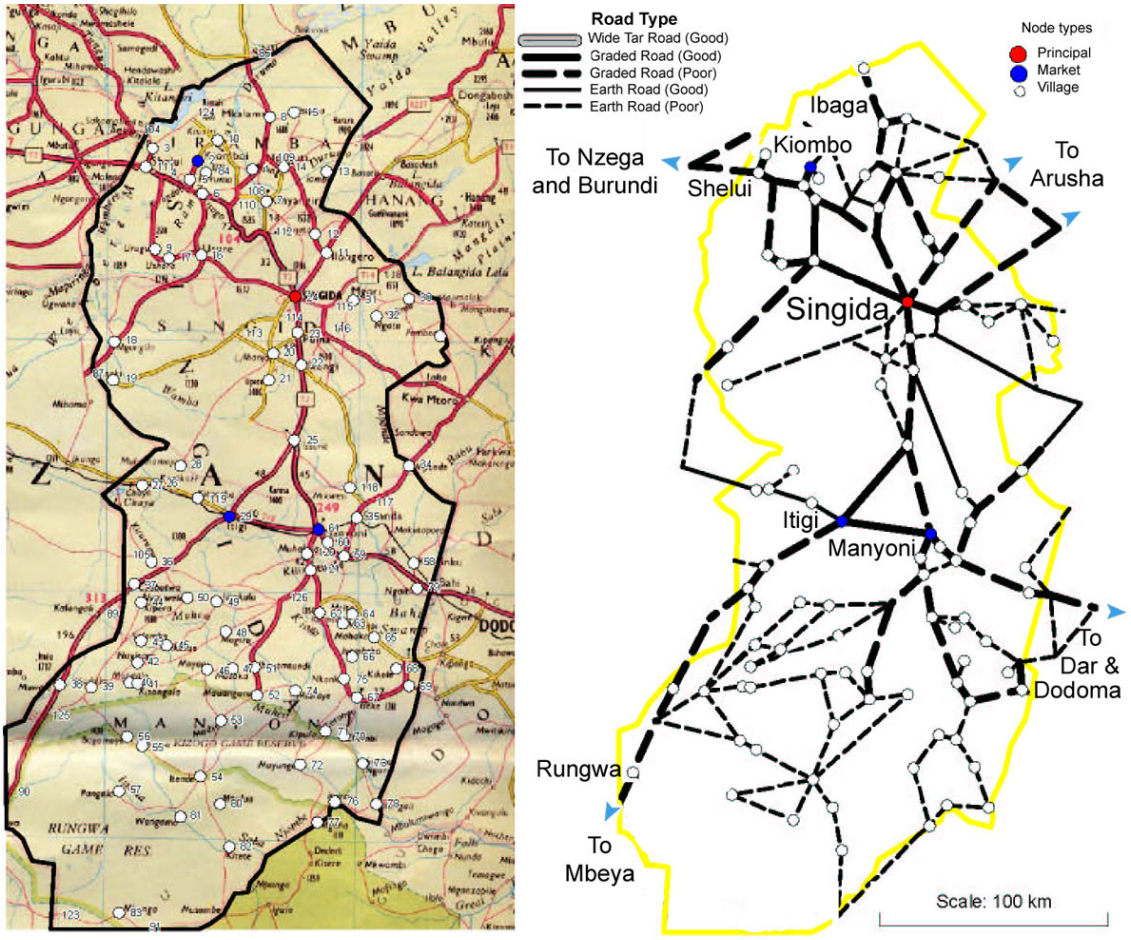


Figure 2. Singida Region showing settlements (left) and the hub and spoke systems of the roads (right)

All of the regional roads are all weather (passable throughout the year) and are linking the district headquarters and important centres in the region with the trunk roads. The condition of district and feeder/community roads vary from good (recently rehabilitated) to very poor. Some of these roads are impassable during the rain season and difficult to travel on during dry season.

The main transport hubs in the region are towns of Singida, Manyoni, Kiomboi, Shelui and Itigi. From these hubs traffic is distributed to other areas of the region. The controlled (regulated) bus terminals managed by the relevant district authorities exist in Singida and Manyoni towns only. A bus terminal is under construction in Kiomboi town.

4.4 Other Transport Services

Other transport services available in the region include the railway passing in Manyoni and Itigi towns and another railway line connecting Manyoni and Singida towns. These rail services do not really serve the rural communities as the railway stations are not necessarily where people live. The water transport services in the Lake Kitangiri are provided by small boats and canoes and are mainly for fishing activities.

A quick estimate of main transport facilities offering services in rural areas in the region (after visiting some main hubs and enquiring from various sources in each district) with estimates of their values and capacity is given in Table 7 below.

Table 7: Estimates of the transport fleet operating in the Singida Region

Transport type	*Estimated numbers*	*Unit value (USD)*	*Overall value (USD)*	*Unit capacity No/ kg*	*Overall capacity No/ kg*
Trucks	28	12,000	336,000	5,000 Kg	140,000Kg
Buses (+20 seats)	17	8,000	136,000	50 persons	850 persons
Minibuses	9	4,500	40,500	18 persons	162 persons
Rural taxis	25	2,000	50,000	15 persons	375persons
Motorcycles	160	900	144,000	2 persons or 70 kg	320persons or 11,200 kg
Carts	13,000	230	2,990,000	500 kg	6,500,000kg
Bicycles	59,000	50	2,950,000	1 to2 persons or 50 kg	60,000 to 110,000 persons or 2,950,000kg

[1] . *Notes: estimated based on field observations and figures obtained from the District Engineers and population census report.*
These figures are for vehicles mainly used for transport of people and goods within the area on a year-round basis. They exclude national and international level long-distance services, within-village transport, fleets of vehicles of any large companies that do not provide transport services (eg, cotton export or forestry industries) and vehicles that only enter for seasonal markets.

From the above statistics, it will be seen that the value of non-motorised transport in the region is around USD 5.94mill, well above the value of the motorised vehicles, which is around USD 0.8mill. and the amounts of loads they carry is significantly higher than their counterparts

4.5 The actual rural transport setting

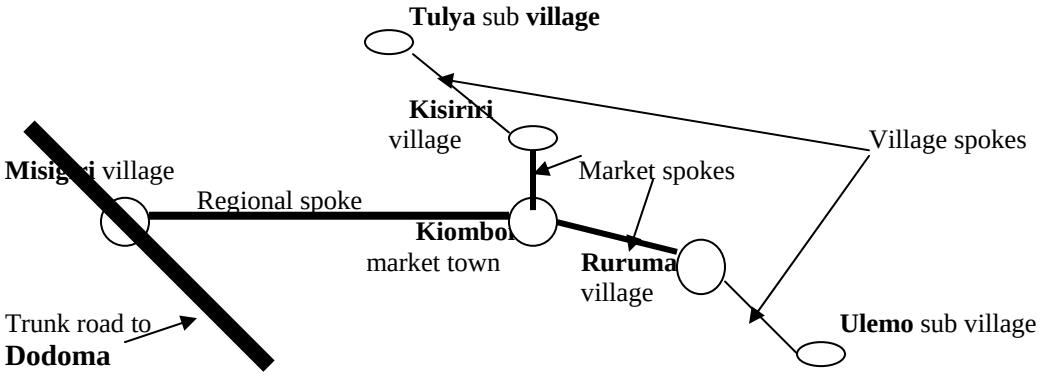
The study on rural transport in Singida region was concentrated in Iramba District. The study covered the area that had all the features of a rural area including a market town, villages and homesteads. The villages covered under the study are Kisiriri (5,200 people) and Ruruma (4, 300

people) being 6 km and 8 km respectively from the market town of Kiomboi. The village spokes from the two villages to homesteads (Tulya and Ulemo) are feeder roads of widths about 3.0 m all being in fair conditions. They cross seasonal rivers but no bridges have been constructed and therefore they are impassable during rainy season or after heavy storms. Beyond Tulya the road goes down the escarpment to villages on shores of Lake Kitangiri and passes on very difficult terrain. The road condition on this section is very bad. Many people use this road for transporting fish from the lake to the market town of Kiomboi. This area is a representative of most part of the region, which is on the plateau.

The traffic surveys on these village spokes on both the normal and market days showed that there were very few motorised vehicles and people travel on these spokes mostly by walking (men and women in almost equal numbers) and on bicycles (mostly men and very few women). There were no cultural reasons for women not using bicycles as much as men. There are a few animal drawn carts on the plateau area and donkeys are used to some extent.

The market town of Kiomboi is the district headquarters with a population of about 21,000 people. The market spokes from Kisiriri and Ruruma villages are district roads (un-engineered) of 3.0 m to 3.5 m wide on fair to bad conditions. There is no bus service to the villages. The few vehicles seen on the spokes were all 4x4s and most of them government owned. Animal drawn carts and donkeys were seen on both market and non-market days.

The provincial spoke surveyed was the road from Kiomboi market town to a village called Misigiri on the trunk road from Singida to Tabora. It is classified as a regional road and is an all weather gravel road in fair to good condition (under rehabilitation during the survey). Bicycles were observed to be the main means of transport and many people were also seen walking with loads on their heads (both men and women). There was motorised transport for different purposes including passenger and cargo transportation. This is the main road that links the market town (which is the headquarters of the Iramba district) to the regional capital, Singida, as well as the busy trunk road from Dodoma to Tabora.



Sketch showing layout of different spokes in the study area

4.6 Existing Transport Services in the Area

The transport services in the area are provided by private operators who own buses (large, and mini) and bush taxis (pickups, 4x4s). Trucks are used to move people and their goods for trade purposes during the market days. Bicycles are mostly used for private journeys but on few occasions they are rented for transporting people and goods especially from the market town to the nearby villages. Bicycles are also used for travelling long distances.

Two cyclists interviewed along a market spoke, Kiomboi – Rurumo road, said they had cycled from Singida town, using roads and tracks, a distance of about 80 km for about 8 hrs. They were going to visit a sick relative in Kiomboi. The reason for using bicycles rather than a bus was lack of TShs 3000 for the fare. They were all farmers living in a village near Singida town.

The only route with regular public transport is the provincial spoke from Kiomboi to Misigiri (a regional road by classification). Buses start from Kiomboi to various destinations within the region and some go to other distant places such as Dar es Salaam, 720 km away. These buses cannot be considered as serving the rural area. People from other areas away from the regional road have no access to public transport services and have to walk or use bicycles to reach them.

The summary of the traffic levels of different types of vehicles and intermediate means of transport as recorded during the two surveys carried out (one on a normal day and another on a market day) is shown in the Table 8 next page. The tables with more details of the traffic counts are appended as annexes to this report.

Table 8: Summary of Traffic levels on the different spokes

Vehicle /NMT	Regional Spoke		Market Spoke (Average of 2 spokes)		Village Spoke (Average of 2 spokes)	
	Non market day	Market day	Non market day	Market day	Non market day	Market day
Trucks - less than 3 tonnes	0	2	0	1	0	0
Trucks - more than 3 tonnes	10	12	0	2	0	0
Buses (more than 20 seats)	17	17	0	0	0	0
Rural taxis - Mini bus (less than 20 seats)	14	12	0	0	0	0
Rural taxi – pick ups, 4x4s	7	11	2	2	2	2
Taxi - cars	4	9	0	2	2	0
Government / NGO -car / pick ups/	15	4	4	2	1	4
Government / NGO - trucks	0	1	0	1	0	0
Private - car, pick ups, 4x4s	16	20	0	4	0	0
Pack donkeys	11	21	4	8	8	12
Animal drawn carts	10	17	1	4	2	4
Wooden wheel Barrows	0	0	0	0	0	0
Bicycles	336	412	115	190	68	86
Motorcycles	28	32	6	8	2	4
Pedestrians	220	446	84	236	94	138

Figure 3 below is a histogram showing the numbers of different types of vehicles plying on the different spokes on a non-market day.

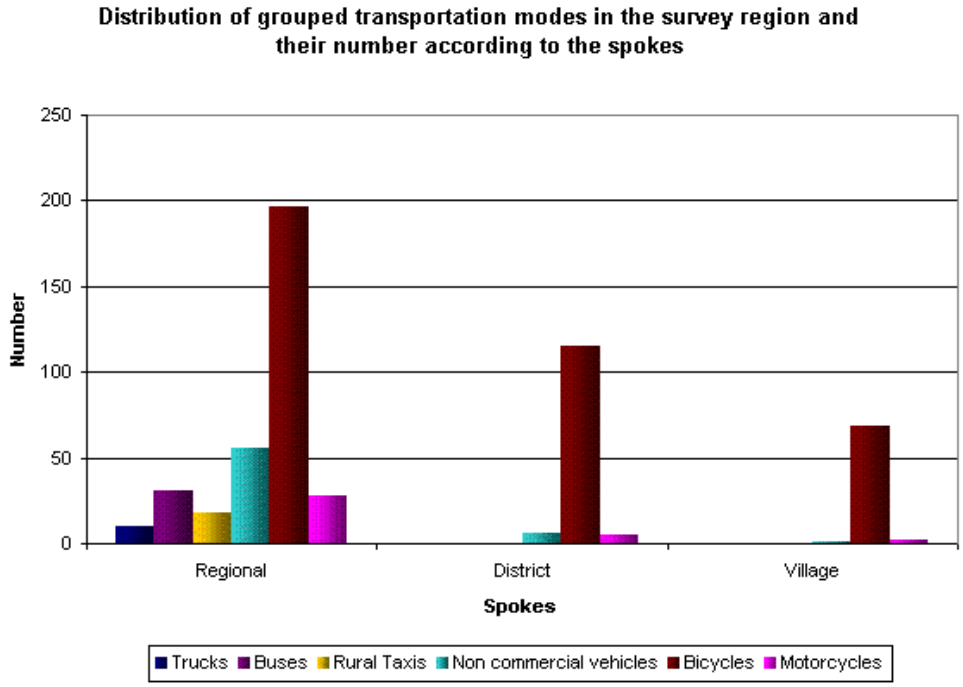
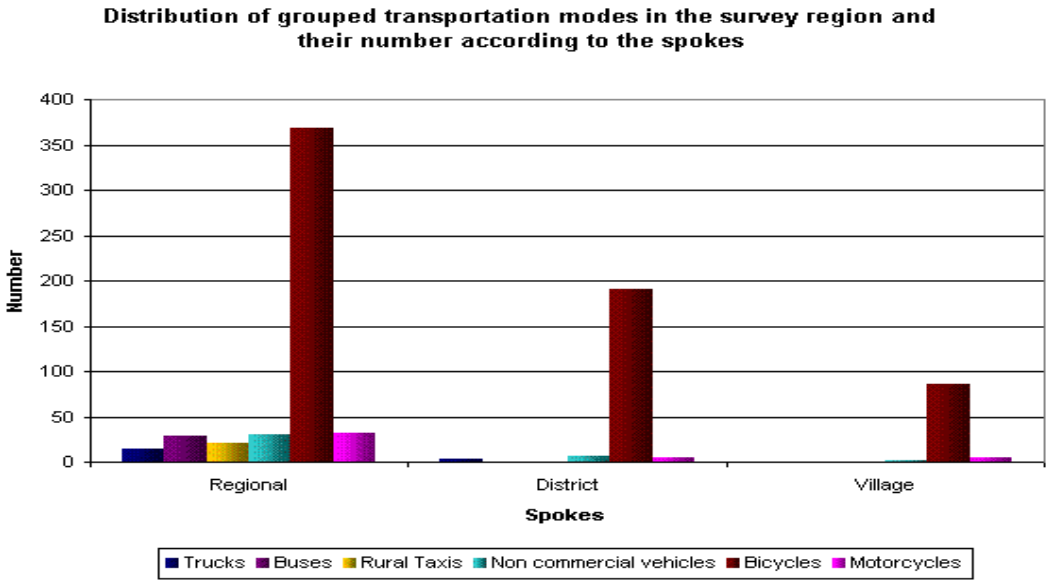


Figure 4 below is a histogram showing the numbers of different types of vehicles plying on the different spokes on a market day.

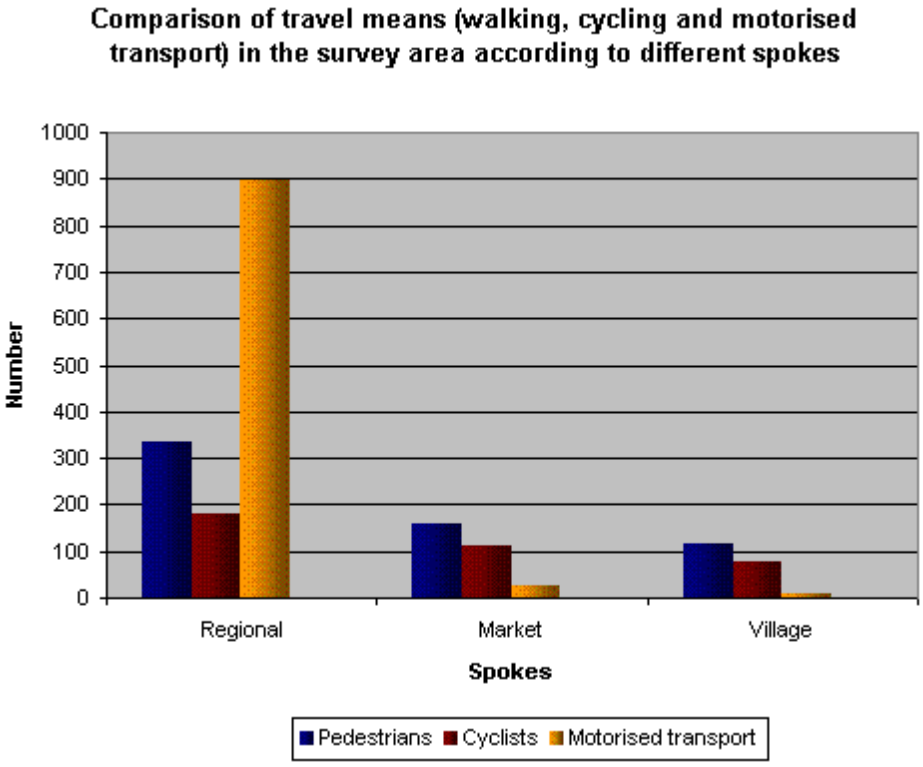


From the above figures, it is clear that the most used means of transport in the area surveyed is bicycles in all the spokes. Motorised transport is almost non-existence in the market and village spokes.

The histograms in Figure 5 below compare the total number of people travelling (average of market and non-market days) by using NMT (walking and cycling) and using motorised transport.

It will be seen that while many people travel using motorised transport in the regional spoke, most people walk and cycle in the other spokes.

Figure 5: Movement of people by motorised and non-motorised transport in the different spokes.



4.7 Demand for Rural Transport Services and User Perspectives

The various user groups were interviewed to ascertain their demand for rural transport. Most of the users were not satisfied with the transport services in the rural area but a number of them said that there had been improvements in the recent years. They called for intervention by the authorities to improve the situation further. The following were comments given by the different users:

4.7.1 Farmers

Farmers in the survey area have dependants ranging from 4 to 6 and travel for various reasons including going to their farms, going to markets to sell their produce as well as buying commodities, going to health centres and visiting relatives. They mostly walk and some use bicycles for travelling distances ranging between 5 and 20 km. When they need to go out of the district to Singida or other distant places they have

to walk or cycle between 3 km to 10 km to Kiomboi town or other villages along the trunk or regional roads where there is public transport (buses or bush taxis). The farmers wish to see more improvements in transport services for them to use less time in transport related activities. Farmers spend from 20% to 40% of their income for transport related costs. There was a general agreement that the transport services are getting better on the regional spoke but not on the others. They did observe that the face more difficulties with transport services during the rainy season when the fares are raised and the prices of commodities and other items such as bicycle spare parts also increase.

The telephone services are not available to the farmers living in the rural areas. They did not think they need them because they cannot afford them. They do not consider them as necessary for marketing purposes.

4.7.2 Traders

Traders in the survey area have between 3 and 6 dependants. Those in the villages travel to get their goods for trading from Kiomboi town while the wholesale traders of Kiomboi get theirs from Singida and Shelui. Other reasons for travelling include visiting relatives and going to health hospitals/hospitals. Most of the traders interviewed owned a bicycle, which they use to travel for business purposes and for visiting relatives. Some of the traders travel to monthly markets taking place in the villages. They travel on lorries/trucks with their commodities. The lorries are overloaded and looked unsafe. They spend about 20%-30% of their incomes on transport. The traders felt that the phone services are important for their businesses. There is limited service of mobile phones in Kiomboi town and Igunga trading centre, which is along the trunk road. The services are not available at all in most parts of the rural area.

4.7.3 Employees

The employees interviewed included a teachers and a doctor (handicapped) at a health centre. The teacher cycles to and from the school, which is 3 km from the village, while the doctor lives a few metres from the health centre and goes to work walking. They all said that they travel to Kiomboi town, the district headquarters 7 km away, at least twice a week for various reasons including shopping and official visits to the government offices (including collecting salaries and sending reports). The teacher cycles and the doctor hire someone with a bicycle and pay TShs. 1,000 for a return trip. Other reasons given for travelling included going to their places of domicile during vacations or going to Singida the regional headquarters. When they have to do such trips, they have to go to Kiomboi where public transport is available. The fare to Singida, 100 km away on gravel road, is TShs. 3,000 or USD 2.6). None of them felt that this amount was high. The transport activities consume about 25% of their incomes. In their opinion the roads have improved but there are still many seasonal rivers that have no bridges. The transport services to the villages have not changed and there is no public transport services introduced in the villages. They experience problem during rainy season because of lack of bridges.

> The handicapped doctor said he could afford to buy a tri-cycle but has not done so because the roads and tracks in the village are bad and he cannot use the tri-cycle comfortably.

Phone services are considered important by all of them. They believe the phones will make them be closer to their relatives living far and will also assist them in doing their work better.

4.7.4 Financial services users:

Very few people use banks in the survey area. Only the employees who have their salaries channelled through the banks do visit the banks regularly. The bank is in Kiomboi town and the only way they can access it is by walking and cycling. The distance to Kiomboi is such that they can manage to make a return trip in a day. The people who use this service fell that the phones are important and they could use them to get information before making the trip to town. There are instances that the salaries are delayed and the employees in the rural areas are not made aware. They travel to towns only to be told that they cannot get money. They have to do a similar trip after a few days without being sure that the money has now been deposited in their accounts. They believe that telephone services, if made available, would help them in getting such information and save them time and money.

4.7.5 Students:

The primary schools are within short distances of between 1 and 3 km and pupils walk to school. The secondary schools in the area are all 'day schools' and students have to walk or cycle for distances between 1 and 6 km. going to schools and to back to their homes. Many walk and a few use bicycles. There is no any organised transport for the students and sometime they fail to attend classes during rain season

4.7.6 Health users:

Most of the people travelling to health walk and some use bicycles. The very sick people who can not walk are transported on locally made stretchers or on bicycles (more often being taken by relatives/friends at no cost), There are no specific bicycles serving as taxis for hire in the villages but the service is being introduced in certain areas especially in small and large towns. No ambulances were seen in the survey area and when patients have to be referred to the regional hospitals then they have to use public transport.

> A lady who had eyesight problems was being transported by his son on a bicycle to a dispensary 32 km away to see a doctor. She had an appointment and the doctor was an eye specialist from Singida regional hospital. The son started the journey at 04.00 hrs. The route was very hilly and he was pushing the bicycle almost half way. Upon arriving at the dispensary, they were told that the doctor did not come from Singida. The son arrived back home around 20.00 hrs.

4.7.7 Household managers (housewives):

Housewives in the rural areas travel for various reasons including going to farms, visiting relatives and going to hospitals. Most of them walk and very few use bicycles (riding them or as a passenger). The distances range between two and ten kilometres. If a need for travelling longer distances arises, then they have to walk same distances or use bicycle to the main roads or to Kiomboi to get public transport.

Many of them take this to be normal but agreed that travelling does take a substantial amount of their time (between 25-50%).

4.7.8 Transport for socio-cultural reasons:

Most of the festivals and social-cultural events take place within the village. Sometime people from one village would participate in such events in another nearby village. The distances could be as much as 10 km. In most cases villagers would walk or use bicycles for travelling to these events. Very rarely, they could organise themselves and hire a pick up truck or a bush taxi.

There are large markets (gulio) that are organised at different places in the rural areas and these take place once per month at specific locations. While they provide business opportunities for the locals, these markets are also considered as social gatherings and many villagers travel from long distance of up to 20 km to visit the markets. The traders travel and transport their commodities using trucks while farmers and other villagers walk or travel by bicycles and those with loads use donkey/oxen carts.

> At a monthly market in Gumanga village, there were approximately 2,000 people. Rough calculations showed that about 150 (7%) of these were traders traveling on trucks, 20 (1%) came on Land Rover pick up trucks, 350 (17%) used bicycles, and the remaining 1480 (75%) walked.

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4.7.9 Excluded people – old, handicapped, socially marginalised:

The handicapped travel to hospitals and rarely to attend family affairs (weddings, funerals, etc.) Accessing hospitals is very hard to those living far from health centres and they have to be assisted by relatives who have bicycles. No tricycles were seen in the survey area and reasons such as affordability and poor infrastructure were given by those interviewed. Old people travel mostly for medical purposes and rarely to visit relatives. They are respected by the young people and are offered seats when the buses are over full. There socially marginalised such as HIV patients are not discriminated when travelling in the rural areas. They are considered as sick people and are offered seats if the buses are full.

4.7.10 Passengers on a bus:

A passenger interviewed in a bus at Kiomboi bus station said that the timing of the buses from Kiomboi to other towns was not good for people living in the villages. The buses leave as early as 05.30 hrs and whoever wanted to travel on them had to come from the village a day before and was forced to sleep in Kiomboi. This increased the cost for travelling. He resides at a village 12 km from Kiomboi. The buses follow the timetable issued by the regional transport licensing authority (SUMATRA). He spends about 20% of his income on transport related expenditures. He preferred to own a mobile phone as he believes that the phone could save him money and time for him (he is a trader with a shop in his village).

4.7.11 Passengers in a rural taxi:

A passenger in a rural taxi (a 4x4 land rover pick-up truck) that travels from Ndago to Sepuka) felt unsafe and complained on the speed of the car. The road is a good gravel road recently rehabilitated. He had no complains on the amount of fare charged. He would have preferred to travel in a big bus but he could not get one at that time. His journey was unplanned and he was going to attend a funeral in a village 65 km from his home.

4.7.12 Pedestrians:

Many people were seen walking (both men and women almost in equal number). They walk distances ranging from 2 km to 20 km for various reasons including going to work places, to buy commodities from the shops, visiting relatives, accessing health facilities, etc. The reasons provided for walking included lack of motorised transport services in some villages and the poor financial capability of the villagers. They use less that 20% of their income for transport related activities. From the two who were interviewed, one said she would have taken a bus if she had the financial ability (fare was TShs 1,500 for a 40 km journey) to where she was going but she had no money. The public transport is available)

4.8 Rural Transport Services, Operator Perspective, Technologies and Costs

Rural transport services in the region are provided by private operators owning buses (different sizes), bush taxis, trucks and animal drawn carts. Bicycles are very common and are used for private purposes. Some bicycle hire centres are now coming up in certain areas, especially on villages along the trunk roads. Donkeys are used as pack animals as well as for pulling carts. Most of the motorcycles seen were government owned and used by extension services staff, ward executives, etc.

Very few barriers were seen in the rural areas. They are for controlling of natural resources and sometime the police would put a barrier for random checking of cargo being transported and vehicles' roadworthiness. Although there are cases of bribes nicknamed 'chai' meaning 'tea' of small amounts of between TShs. 500 to 2,000 (equivalent to USD 0.4 to 1,7), they are not considered by the transporters as obstacles to their business. They expressed their satisfaction on reduced levels of bribes in recent years.

The vehicles (buses and bush taxis) providing services in the rural areas are old (some being more than 25 years old) and many in poor state. They experience frequent breakdowns. The same is true for trucks, which are used to transport traders to markets. Most of the bicycles that are used in rural areas are old and missing some important components as front brakes, mudguards, pedals, etc.

An analysis of the operation costs of the different types of the vehicles and other transport means mostly used in the survey area is shown in the following table 97. It will be seen from the analysis that the profit realised for transportation business in the rural area is very low and in some cases (the buses and rural taxis) it is seen that the operators make losses. This raises questions as to why they still do the business but can also be giving the answer to why there a re no investors attracted in the business.

The pie chart in Figure 6 below shows the breakdown of the annual expenditures by a truck operator. Fuel ranks first followed by maintenance.

Figure 6: Breakdown of annual expenditure of a light truck operating in Singida Region (based on total costs of about Tsh 13 million or USD 11,000).

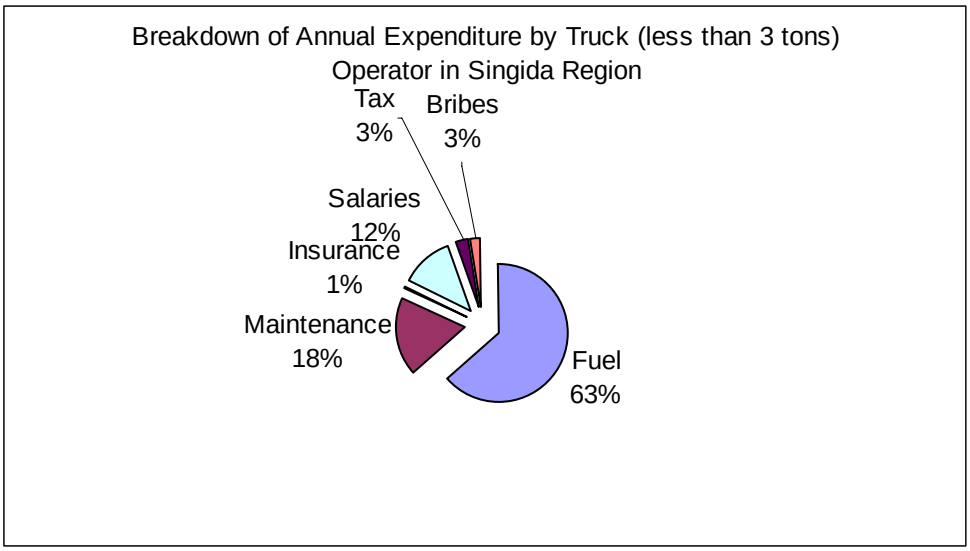

Table9: Operator Costs Summary Sheet for commonly used means of transport in the survey area.

Operator Costs Summary Sheet														
Mode	Distance / yr (km)	Passengers or freight carried / yr	Initial costs (USD)	Vehicle Life Expectancy (yrs)	Depreciation Cost (USD)	Fixed Annual Costs (USD)	Variable Costs / yr (USD)	Total Costs /yr (USD)	Cost per km (USD)	Tariff / passenger or freight / km (USD)	Typical load (pax or tonnes)	Income / km (USD)	Estimated profit per km (USD)	Estimate annual profit (USD)
Trucks - less than 3 tonnes	22000	600	7900	5	**1,580**	425	9,486	**11,491**	**0.52**	0.22	3	0.66	**0.14**	**3029**
Buses (+20 seats)	69000	12000	24000	6	**4,000**	785	49,980	**54,765**	**0.79**	0.03	40	1.04	**0.25**	**17235**
Rural taxis (pick up trucks, minibuses, cars)	21000	5760	750	4	**188**	170	6,738	**7,096**	**0.34**	0.03	12	0.40	**0.06**	**1305**
Bicycles	6000	600	80	5	**16**	0	55	**71**	**0.01**	0.05	1	0.05	**0.04**	**229**
Animal drawn carts	4000	180	350	12	**29**	0	125	**154**	**0.04**	0.17	0.6	0.10	**0.06**	**246**

Fixed costs	**Trucks less than 3 tons**	**Buses (+ 20 seats)**	**Rural taxis (pick up/estate/ 4x4s)**	**Bicycles**	**Animal drawn carts**
Insurance	60	360	45	0	0
Income tax	300	260	85	0	0
Other costs	65	165	40	0	0
Total	**425**	**785**	**170**	**0**	**0**
Variable costs					
Fuel & oils	5,860	33,480	4,668	5	5
Tyres	974	7200	160	20	60
Spare parts	1043	3600	800	25	35
Salaries	1409	4200	960	0	0
Other costs	200	1500	150	5	25
Total	**9,486**	**49,980**	**6,738**	**55**	**125**

4.9 Support Services for Rural Transport Services

The support services for the providers of the rural transport services that were studied included the supply of the facilities (vehicles, bicycles, spare parts) and the repair services of the facilities.

4.9.1 Supply

The source of vehicles that provide rural transport services (always second hand vehicles) was found to be the Government departments and parastatals, missionaries (through auctioning of aged vehicles) and national-level private large transporters who changed their fleet after so many years of use. There was no any operator who had a new vehicle, which was providing rural transport service. The low return from investments in the sector could be the main reason for the private sector not venturing in it. Information on the costs vs. income for the services differed from one operator and another. While some said that they make loses in provision of services or are making enough profit for them to survive and not getting surplus for new investments, others were positive saying that they make enough profit to able to buy another second hand vehicle after periods of between 18 and 24 months.

Motorcycles are not very popular in the rural areas. The extension officers and health workers use them to move to their work places. Very few ordinary persons own them. The reasons given for this situation was affordability. The current prices of cheapest motorcycles in Dar es Salaam (Chinese type Zongshen) of capacity 125cc are TShs. 1.2 mill (USD 1,100) for the 'CG' type and TShs. 1.9 mill (USD 1,650) for the 'off road' type, which is more ideal for rural transport. Import duty on motorcycles is 25% and VAT is 20%. This translates to about 50% of the cost. The dealer of the motorcycles said that there are arrangements for credits to employees through The Federal Bank of Middle East but no any arrangements have been negotiated for similar scheme for farmers.

New bicycles are available at all towns in the region at different prices for different models. There are centres in the towns of Singida, Manyoni and Shelui where bicycles of different types are hired at a price of TShs 300 (USD 0.25) per hour or TShs 2,000 (USD 1.8) per day. Occasionally the villagers hire bicycles to each other at TShs. 500 per day (USD 0.37). The reason for such a low hire rate was said to be the low income of the villagers.

Table 10: Price of different models of bicycles in Kiomboi town compared to prices in Dar es Salaam

Type of bicycle	**Price in Kiomboi**		**Whole sale Price in Dar es Salaam**	
	TShs	**USD**	**TShs**	**USD**
Phoenix	95,000	83	73,000	64
Avon	75,000	65	56,000	49

The import duty imposed on bicycles and spare parts is currently 10 % and the VAT is 20%. This translates to 35% of the cost of the bicycles.

Animal drawn carts are used mostly on the plateau area of the region of Singida. They are produced locally in many centres within the region at a cost of ranging between TShs.200,000 (USD 180) to TShs. 250,000 (USD 220) The cost of oxen and donkey for pulling the carts stands at TShs 140,000 (USD 120) and TShs 75,000 (USD 68) respectively. Donkeys are preferred because they are considered as more resistant to sicknesses. There had been cases of 'African horse sickness' in the Irambai District in the past and this affected the use of animal traction to some extent. A Village Travel and Transport Project (VTTP) was implemented in parts of

Singida region from 1998 to 2003 (in Irambai District). During the VTTP final days, Ideas on improvement of the carts by introducing braking system were floated but not tried due to closure of the project. This was for the purpose of making it possible to use the carts on hilly areas. Donkeys are also used as pack animals in many areas of Singida region.

4.9.2 Spare Parts

Spare parts for most of the makes of vehicles are available in the main towns in the region. The fast moving spare parts which are on demand for the types of vehicles serving the rural areas are springs, shock absorbers, ball joints, tie rod ends, steering dumpers, and brake parts. These wear out faster due to the poor condition of the rural roads.

Spare parts for bicycles are available in towns as well as in villages. The fast moving parts are the spokes, wheel bearings, hubs, brakes and sprockets.

4.9.3 Repair shops

Garages for repair of vehicles are located in towns and the operators interviewed did not complain on the services offered by the garages. The garages have experienced mechanics and are equipped with enough tools for carrying out repairs. The garages in Singida, Manyoni and Shelui repair 15 to 30 vehicles monthly. These are the types that ply in rural areas (trucks, buses, bush taxis). The garages in smaller towns of Kiomboi and Itigi repair about 10 to 15 vehicles a month. Common repairs undertaken are replacing broken springs, shock absorbers, steering related parts, and brakes. Occasionally, they carry out repairs of the bodies and chassis. Most of the garages do not sell spare parts and prefer that the vehicle owners supply the spares parts required but for those garages, which sell spare parts, they sell them with a profit mark up of 15% to 20%. The prices of spare parts have been increasing in recent period and this has made the operators fail to repair their vehicles properly and they opt to use second hand spare parts. . The repair business is not seasonal. It is at the same level all year round. There are unregistered garages which provide similar services and the registered garages feel that they make them loose businesses.

Bicycle repair shops are found in most places, in towns as well as in villages. The number of bicycles repaired by the repair shops differs from place to place and range from 2 to 10 per day. The main repairs undertaken are change of spokes, spindles, hubs, steel balls and rim alignment. Spare parts are available in towns and in villages. There is a general agreement by many bicycle repairers that bicycle usage is increasing in the villages and their use is not seasonal (all year round). The most common types in use are Phoenix and Avon bicycles from China and India respectively. The repairers earn between TShs 2,000 and TShs 3500 (USD 1.7 to 3.2) per day. Their customers include farmers and other people living in towns. The cycle garage owners in towns use mobile phones but do not believe that they are important for their work because most of the shops are near their garages and their customers have no phones.

4.10 Perspective of Local Informants of Specific Issues Related to Rural Transport Services in the Locality

The different authorities in the region were interviewed and gave their views on the subject of rural transport. The views and opinions are provided are as follows:

4.10.1 District Authorities

The district authorities are responsible for planning of programs related to rural transport but the rural district councils experience acute shortage of funds to meet their requirements. They receive funds from the Roads Fund for maintenance of the district and feeder roads but these funds are only about 30% of the actual maintenance requirements. Some donors are assisting in solving the

rural transport problems and the district authorities are fully involved in the planning and execution of such programs. A program that tried to address rural transport is the VTTP, which has been explained above.

The district authorities in Kiomboi confirmed that there is very low motorised transport service in the rural areas and there is increased use of IMTs such as bicycles and animal drawn carts. But the roads through an escarpment are so bad that even walking is difficult. Factors such as low demand and poor infrastructure are said to be the reasons for the private sector not going to the rural areas. There is a general agreement that the roads are being maintained and getting better when compared to the past. However many roads are still in bad condition and passable only during dry season.

4.10.2 Village Authorities

The village authorities feel that nothing considerable is being done to improve the transport services in the villages. They complain of bad condition of roads, lack of motorised transport and high cost of IMTs especially bicycles. To many villagers, the price of bicycles is high and they cannot afford to buy them. When asked on their opinions, the village leaders had the following suggestions:-

- Roads should be improved further and bridges constructed on the river crossings;
- Licensing authorities should force the operators of buses to terminate their trips in the villages;
- Bicycles prices be lowered;

4.10.3 Police

The police are responsible to ensure that vehicles providing transport services are road worthy. They are failing to be very strict on enforcement of regulations in rural areas because this will affect most of the old vehicles providing services in the areas. However, they are very few fatal accidents in the rural areas.

On non-motorised transport, the police complained that cyclists are not following the road safety rules and are careless. They move from one side of a road to another carelessly and sometime getting involved in accidents with motorised transport. The cyclists feel that they have more right in the rural roads. There are no rules regulating non-motorised transport.

The problem of overloading exists and is discouraged. Overloaded vehicles loose stability and cause accidents. When asked about the overloaded trucks, which are used by traders to go to the monthly markets, the police said they do not allow them to do so and occasionally the truck owners are fined.

4.10.4 Health Managers

The concerns of health managers in the rural areas are the difficulty of transporting the sick to referral hospitals. Most of the health centres do not have ambulances and public transport is not available in many rural areas. Telephones are not available and communication with district and regional hospitals is very limited. Their suggestions for improvements included:-

- Improve road conditions in the rural areas and make most of the villages accessible;
- Providing health centres with motor vehicle ambulances for attending emergencies;
- Facilitate availability of bicycles in the villages to be used as ambulances.

4.19.5 Education - Head teachers

Most of the schools in rural areas are located in remote areas where there is no public transport. Teachers have to walk distances ranging from 6 to 12 km to the main roads or towns where they can get public transport if they need to travel to the district headquarters or other places (to their homes during vacations). There are cases of teachers refusing to take jobs in certain rural areas due to transport problems. There have been no efforts to introduce motorised or non-motorised transport in the villages to transport school children. The low incomes of the parents could have effect on this initiative, as many will not be able to afford the fare.

4.10.6 Transport Associations

The transporters association leaders in Singida town are of the opinion that transport services are much better now in the region as more people have bought vehicles (imported second hand) of various capacities and more villages are accessible after improvements of the roads. Their views on overloading is that the police are not doing their work properly and they wish to see more safety measures taken to prevent fatal accidents. On trucks transporting people, their views are that there is still low capacity of passenger vehicles and the situation will improve as more buses are brought in the region.

4.10.7 Financial organisation

There have not been any credit facilities to assist in solving rural transport problems before but the CRDB bank is now introducing a Small and Medium Enterprises (SME) facility (with softer lending conditions) to offer credits which can be used to solve the rural transport problems. However, the low income of the farmers and low levels of education make the farmers less creative thereby failing to be aggressive in applying for loans (no sense of entrepreneurships). With trade liberalisation initiatives taking roots, it is expected that the farmers will be more exposed to opportunities and will become more entrepreneur.

4.10.8 NGO / development programmes

There is still a lot to do to improve accessibility and mobility in the rural areas. The country's weak economy can not provide the required infrastructure and the private sector does not see the opportunities for investing in rural transport services. Knowing this fact, the NGO's and development partners are mobilising more resources to complement the Government's sources to improve the rural infrastructure so that the private sector is encouraged to provide the transport services. The VTTP, funded by the World Bank assisted in improving community roads, and promoting NMT.

4.11 Commodity and Retail Prices

The prices of commodities in Kiomboi town and at the end of different spokes were compared and found to have very little variations on most of the items. The explanation could be the distances from Kiomboi to these other places being short (the furthest is only 15 km away). Agriculture produce was cheaper in the villages, while the other commodities were more expensive than in Kiomboi. The reason given by traders was the transportation costs. The table 11 below provides the comparison of prices at different places.

Table 11: Comparison of prices of agriculture produce and commodities

S/n	Item	Price in Dar es Salaam (Capital City)		Price at Iramba District HQ		Price at Kisiriri Village		Price at Tyula village	
		TShs	USD	TShs	USD	TShs	USD	TShs	USD
1	Beans – 10 kg	4,000	3.6	2,000	1.8	1,900	1.72	11,000	9.5
2	Maize–appr.20kg	6,500	6	4,000	3.6	3,800	3.3	3,200	2.8

3	Kerosene - 1 litre	750	0.62	900	0.8	1,200	1	1,400	1.2
4	Sugar – 1kg	650	0.57	850	0.7	1,000	0.85	1,200	1
5	Soda – 350ml	250	0.2	300	0.23	350	0.3	400	0.35

5.0 ANALYSIS AND CONCLUSION

Following the observations by the study team as provided in the preceding chapters, it is clear that there are transport difficulties encountered by the rural communities in Singida region. This chapter analyses the issues affecting rural transport services and gives recommendations for solving rural transport problems

5.1 Key Issues

5.1.1 The transport situation and trends

The main means of travel in the rural areas of Singida region is by using bicycles and walking. Motorised transport is available on main roads and although regulated but is still unreliable and in instances dangerous (overloading and bad condition of roads). There is an increasing use of certain types of IMTs such as bicycles and animal drawn carts, while use of motorcycles is minimal. The condition of rural roads is slightly improving as a result of the increasing finances from the Road Fund. .

5.1.2 Profitability and supply issues

Provision of motorised transport services in the rural areas is not profitable due to the high operation costs (high fuel and spare parts costs, and bad condition of roads). This is clearly seen from the type of vehicles providing services in the rural areas (old and in poor state). Bicycles hire, although not very common in rural areas, is somehow profitable. While the supply of IMTs and spares is reliable, the prices for the same is on high side and most of the rural people cannot afford. The animal drawn carts are produced locally in Singida region but their prices are on high side. Donkeys are available in most of the areas in the region.

5.1.3 Affordability and demand

While there is demand for rural transport services, the poverty levels of the rural communities is an obstacle for them to acquire or even pay for transport services. There are frequent incidences of people walking long distances, even when there are public transport services, because they do not have money to pay for the fare. This is also true for workers in the education, health and agriculture sectors. The health centres require reliable transport services to cater for emergencies and referral cases.

> Many bicycles lacked some parts such as pedals, brakes, mudguards, etc. When the owners were asked as to why they were not replacing the damaged parts they gave a reason of lack of money. They however agreed that riding bicycles without important parts such as brakes is dangerous

5.1.4 Regulation and associations

There are regulations controlling rural transport services but their enforcement is weak due to fear of loosing the few services providers as well as bribery. The transporters association is not recognised, as it is not officially registered. It is weak but playing a ‘controlling role’ of making the passenger transporters to load by turns and to ply on their routes.

5.1.5 Other key factors influencing

The other factors influencing rural transport services are:

- Lack of credit facilities to rural communities for acquiring transportation facilities
- Lack of 'self help' approach by the rural communities and their leaders to improving accessibility to their areas (roads, drainage structures, tracks and paths). This is necessary as limited financial and human resources capacity of the local governments (responsible for upkeep of district and feeder roads) cannot cope with the demand.
- Taxation on IMTs such as bicycles and motorcycles increases the prices and make them expensive to the rural community.
- Increasing fuel costs make the motorised transport more expensive and unaffordable to many of the rural communities. Fuel costs contribute to more than 50% of the total operators' costs

5.2 Cross Cutting Issues

There a various cross cutting issues that should be taken into account when looking at the rural transport situation. These are listed below:

5.2.1 Safety

Safety in rural transportation is not very serious due to bad condition of roads that limit the speed of the vehicles. During the market days lorries are overloaded with cargo and traders going to the market. There are incidences of accidents involving Non-motorised transport (especially cyclists) and the police have been reminding the cyclists to be more disciplined when riding on roads. Some cyclist change sides on the road carelessly and collide with vehicles and other cyclists. There are very few cases of accidents involving animal drawn carts. Enforcement of laws and regulations is weak.

5.2.2 Gender

There is no gender discrimination in the rural transport services as all female and male passengers are treated equally while using motorised transport. There were few female cyclists seen but no reason was given for the low number. The animal drawn carts are mostly used by men for transportation of various item including farm inputs and produce, and construction materials. The study showed that both men and women walk for long distances and carry loads (of small sizes) on their heads/shoulders.

5.2.3 Environment

There are no many issues of environmental concerns within rural transport area. Guidelines on environmental management are available and the contractors are supposed to adhere to them when constructing new roads or maintaining roads. Main issues of concern are the treating of gravel pits and unnecessarily felling of trees alongside the roads. Although dust is very common on unpaved roads and has a negative effect to villagers living alongside the roads, there is no much being done to control the level of dust.

5.2.4 HIV/Aids

HIV/Aids cases are increasing in Singida region especially along the trunk roads where there is more interaction between the locals and the travellers/drivers. The 'monthly markets' on different parts of the region may also be contributing to increased incidences of HIV/Aids infection as the traders move from one market to another and spend nights in the villages. There were no any campaigns to alert the communities on HIV/Aids at the Sepuka and Gumanga markets visited on different dates where there were approximately 2000 people at each market.

5.2.5 Marginalised people

There are no specific transport services for the old and handicapped persons. However, the old people are respected by the younger passengers who provide seats to them in the buses when the bus is full. There was no any tricycle seen in the rural areas although there were many handicapped persons. The reason for this is again the affordability. Tricycles are more expensive than bicycles. The buses have no facilities to allow the disabled persons to embark on them easily. They have to be assisted.

5.3 General Implications

5.3.1 Poverty, millennium development goals (MDGs) and rural transport services

The overriding objectives of all the MDGs are eradication of extreme poverty and hunger. The poverty situation in the rural areas is fuelled by unaffordable and inefficient transport services. With improved and affordable transport services the farmers will be able to get better prices for their produce and the prices of commodities will be low. Better health facilities resulting from improved transport services will reduce the share of their income that they use for medical expenses thereby enabling them to use their income for other development activities.

5.3.2 Priorities according to the different stakeholders

The different stakeholders in the rural transport area have been raising their concern on a number of issues that contribute to poor rural transport situation in the region and the country at large. Among the issues raised were lack of a comprehensive rural transport policy, which will focus and provide directions and strategies to improvement of rural transport. Other priority areas mentioned include:

- Mobilising more funds for improving rural infrastructure especially the roads;
- Promoting more use of intermediate means of transport by lowering their prices through de-taxation and use of cheaper but durable materials (for animal drawn carts, push carts, etc.);
- Organising credit schemes for farmers to be able to acquire transport means especially intermediate means of transport;
- Encouraging private sector to provide rural transport service;
- Enforcement of laws and regulations to enhance comfort and safety to the rural community;
- Recognise and empower transporters association to assist in the proper planning of transport services;

5.4 Specific Recommendations

Taking all the above into consideration and recognising the status of rural transport situation in Singida, it is necessary to improve the rural transport services.

5.4.1 Ways to improve rural transport services

a) The rural roads, which have a vital role for providing access to the rural community, have to be kept in a good standard that will attract private operators. The most appropriate way to ensure that the roads are sustainably maintained at reasonable costs is to use the workforce living alongside the roads, i.e. the villagers. With proper agreements between authorities responsible for upkeep of roads and villagers (through village governments on a payment basis), the roads will be kept in good condition.

b) Bicycles are the cheapest transport means that most of the rural community could afford if the prices are lowered. The abolishment or lowering of the taxes will make them available at

lower costs and many more people can afford them. Credit facilities could help the smaller farmers to own bicycles

c) Since there is scarcity of buses that offer passenger transport services, the other vehicles such as pick-ups and station wagons should continue to be licensed (after making the necessary modifications to make them safe and comfortable) to provide the services to areas that buses do not reach.

d) Incentives should be introduced to the people who are ready to offer transport services in the rural areas. Such incentives could be lower taxes; special credits schemes with low interest rates, etc.

5.4.2 Specific follow up activities proposed

The above information provides a true picture of rural transport services in Singida region and in particular in the Iramba District. These findings from the study may not be known by many of those who have a role to play in solving rural transport problems. The best way to make most of the responsible people aware of the situation could be to organise a seminar in the region and disseminate the findings so that the institutions such as the transporters association, farmers and the district authorities can understand rural transport problems in their respective areas and assist in solving them through campaigning for appropriate policies and strategies.

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Annex 1.

List of People Contacted/Interviewed

S/n	Name	Position and Institution	City / Town
1	Richard Musingi	Director Regional Coordination, President's Office Regional Administration and Local Government	Dar es Salaam / Dodoma
2	Dieter Schelling	Lead Transport Specialist World Bank	Dar es Salaam
3	B. Rufunjo	Director of Transport and Communications, Ministry of Communications and Transport	Dar es Salaam
4	Anna Mwasha (Ms)	Assistant Director, Poverty Eradication Department, Vice President's Office	Dar es Salaam
5	Rahul Gupta	Dealer of Cycles and spare parts, R.G.N. International Ltd	Dar es Salaam
6	Simbo Mushi	Agent for Chinese Zongshen motorcycles, Kazzar Ltd	Dar es Salaam
7	Mr. G.F. Bussungu	Regional Trade Officer and Secretary of Regional Transport Licensing Authority	Singida
8	Ahmed Kaburu	Past Chairperson – Singida Transporters Association	Singida
9	Dr. S. Mtalo	District Executive Director, Iramba District Council	Kiomboi
10	Godwin S. Mpinzile	District Engineer, Manyoni District Council	Manyoni
11	Philemon Msomba	District Engineer, Iramba District Council	Kiomboi
12	Leornard Ntuwa	Secretary of Trade Union	Singida
13	Salum Hussein	Community Development Officer – Iramba district	Kiomboi
14	Leopold Makngila	Community Development Officer – Iramba district	Kiomboi
15	Enock Duke	Planning Officer – Iramba district	Kiomboi
16	Mwaisondola Michael	Agricultural Officer – Iramba district	Kiomboi
17	Felix Waitare	Agricultural Officer – Iramba district	Kiomboi
18	Paul Ndatwa	VTTP coordinator – Iramba District Engineers Office	Kiomboi
19	Aron Mussa	Technician - Iramba District Engineers Office	Kiomboi
20	Shadrack W. Makala	Ward Executive Officer	Kisiriri
21	Neligwa Mgitu	Medical Assistant, Kisiriri Dispensary	Kisiriri

22	Michael Msengi	Farmer	Tutu village
23	Yusuf Ramadhani	Farmer (also sick person)	Kisana village
24	Abdullah Salum	Trader – grocery	Kisiriri
25	Joseph Warioba	Trader selling bicycles	Kiomboi
26	Marko Onesmo	Taxi driver	Kiomboi
27	Japhet Peter	Bicycle repairer	Kiomboi
28	Jackson Kamasho	Garage owner (also owning a 3ton pick up truck)	Kiomboi
29	Amani Muhembano	Mini bus owner	Kiomboi
30	Omari Mundu	Traffic Police Officer	Kiomboi
31	Mwasiti Hamisi	Teacher	Tutu Primary School
32	Margareth Nyamsu	House wife	Tulya village
33	Steven Kitundu	Student	Tutu Primary School

Annex 2

Lessons from the methodology

The following may be summarised as the lessons from the methodology used in assessing rural transport services in Singida region:

1. With the limited time and resources, most of the information collected could not be verified and therefore some of the data provided by the operators could be unreliable (overestimating costs/underestimating income)
2. The methodology can provide very good information for a particular area and not for a region in its totality. Some of the regions are big in size and have varying topography with different types of transport problems in the different areas.
3. It is important to do at least two counts on the different spokes (on non-market and on market day) so as to capture the different type of transport facilities used.
4. The interviews with the different actors provide good information but should be done by a rural transport expert, as there is always an additional question that can be asked that could give a very pertinent answer.

Annex 3

SURVEY SUMMARY SHEET – REGIONAL SPOKE – (Kiomboi t o Misigiri) – Non Market day

Mode	Numbers	Over full	Full	Half full	Empty	Primarily Freight	Primarily Passengers
Trucks - less than 3 tonnes	0						
Trucks - more than 3 tonnes	10	3	4	-	3	4	3
Buses (more than 20 seats)	17	5	12	-			
Rural taxis - Mini bus (less than 20 seats)	14	1	9	3	1		
Rural taxi - pick ups, 4x4s	7	2	4	1	-		
Taxi - cars,	4	-	3	1	-		
Government / NGO -car / pick ups/	15	1	9	3	1	3	12
Government / NGO - trucks	0	-	-	-	-		
Private - car, pick ups, 4x4s	16	-	12	3	1		
Pack donkeys	11	5	1	-	5		

Pedestrians	Number	more 5 kg load	less 5 kg	No load	Livestock to market
Female pedestrian	101	46	16	39	-
Male pedestrian	119	22	19	78	-

Cyclists	Number	1 passenger	over 5 kg load	neither
Male bicycles	326	152	28	146
Female bicycles	10	2	3	5

Motorcycles	Number	1 passenger	2 passenger	3 passenger	Load only	Load in addition to passengers
Male motorcyclist	28	15	1	-	6	6
Female motorcyclist	0	-	-	-	-	-

Animal drawn	Number	Full	Half full	Empty	1 passenger	2 passenger	3 passenger
Animal drawn	10	6	-	4	-	-	-

SURVEY SUMMARY SHEET – REGIONAL SPOKE – (Kiomboi to Misigiri) – Market day

Mode	Numbers	Over full	Full	Half full	Empty	Primarily Freight	Primarily Passengers
Trucks - less than 3 tonnes	2	2	-	-	-	2	
Trucks - more than 3 tonnes	12	7	2	1	2	9	3
Buses (more than 20 seats)	17	2	14	1	-		
Rural taxis - Mini bus (less than 20 seats)	12	-	10	2	-		
Rural taxi - pick ups, 4x4s	11	7	2	2	-		
Taxi – cars	9	-	5	3	1		
Government / NGO -car / pick ups/	14	2	8	2	2	3	9
Government / NGO - trucks	1	-	-	1	-	1	-
Private - car, pick ups, 4x4s	20	2	15	2	1	12	8
Pack donkeys	21	9	6	3	2		

Pedestrians	Number	more 5 kg load	less 5 kg	No load	Livestock to market
Female pedestrian	254	84	118	52	
Male pedestrian	192	77	52	63	

Cyclists	Number	1 passenger	over 5 kg load	Neither
Male bicycles	389	76	173	140
Female bicycles	23	5	7	11

Motorcycles	Number	1 passenger	2 passenger	3 passenger	Load only	Load in addition to passengers
Male motorcyclist	32					
Female motorcyclist	0					

Animal drawn	Number	Full	Half full	Empty	1 passenger	2 passenger	3 passenger
Animal drawn	17						

SUMMARY SHEET – MARKET SPOKES (Kiomboi – Kisiriri and Kiomboi – Ruruma) – Non Market day (Avrg)

Mode	Numbers	Over full	Full	Half full	Empty	Primarily Freight	Primarily Passengers
Trucks - less than 3 tonnes	0	-					
Trucks - more than 3 tonnes	0	-					
Buses (more than 20 seats)	0	-					
Rural taxis - Mini bus (less than 20 seats)	0	-					
Rural taxi - pick ups, 4x4s	2	-	-	2	-	-	2
Taxi – cars	0	-					
Government / NGO -car / pick ups/	4	-	2	1	1	1	2
Government / NGO - trucks	0	-					
Private - car, pick ups, 4x4s	0	-					
Pack donkeys	4	-	3		1		

Pedestrians	Number	more 5 kg load	less 5 kg	No load	Livestock to market
Female pedestrian	48	2	10	36	
Male pedestrian	36	4	6	26	

Cyclists	Number	1 passenger	over 5 kg load	Neither
Male bicycles	108	47	24	37
Female bicycles	7	2	-	5

Motorcycles	Number	1 passenger	2 passenger	3 passenger	Load only	Load in addition to passengers
Male motorcyclist	6	3	-	-	1	1
Female motorcyclist	0	-				

Animal drawn	Number	Full	Half full	Empty	1 passenger	2 passenger	3 passenger
Animal drawn	1	-	1	-			

SUMMARY SHEET – MARKET SPOKES (Kiomboi – Kisiriri and Kiomboi – Ruruma) – Market day (Avrg)

Mode	Numbers	Over full	Full	Half full	Empty	Primarily Freight	Primarily Passengers
Trucks - less than 3 tonnes	1	-	1	-	-		1
Trucks - more than 3 tonnes	2	-	2	-	-	1	1
Buses (more than 20 seats)	0	-					
Rural taxis - Mini bus (less than 20 seats)	0	-					
Rural taxi - pick ups, 4x4s	2	2	-	-	-	2	
Taxi – cars	2	-	-	2	-		
Government / NGO -car / pick ups/	2	-	-	2	-		2
Government / NGO - trucks	1	-	1	-	-	1	
Private - car, pick ups, 4x4s	4	-	2	-	2	2	
Pack donkeys	8	-	6	-	2		

Pedestrians	Number	more 5 kg load	less 5 kg	No load	Livestock to market
Female pedestrian	144	15	58	68	3
Male pedestrian	92	24	17	51	

Cyclists	Number	1 passenger	over 5kg load	Neither
Male bicycles	176	84	65	27
Female bicycles	14	4	3	7

Motorcycles	Number	1 passenger	2 passenger	3 passenger	Load only	Load in addition to passengers
Male motorcyclist	8	4	1	-	2	1
Female motorcyclist	0	-				

Animal drawn	Number	Full	Half full	Empty	1 passenger	2 passenger	3 passenger
Animal drawn	4	2	1	1			

SUMMARY SHEET – VILLAGE SPOKES (Kisiriri – Tulya and Ruruma - Ulemo) Non Market day (Avrg)

Mode	Numbers	Over full	Full	Half full	Empty	Primarily Freight	Primarily Passengers
Trucks - less than 3 tonnes	0	-					
Trucks - more than 3 tonnes	0	-					
Buses (more than 20 seats)	0	-					
Rural taxis - Mini bus (less than 20 seats)	0	-					
Rural taxi - pick ups, 4x4s	2	1	1	-	-	1	1
Taxi - cars	2	-	-	2	-		
Government / NGO -car / pick ups/	1	1	-	-	-	1	
Government / NGO - trucks	0	-	-				
Private - car, pick ups, 4x4s	0	-	-				
Pack donkeys	8	2	3		3		

Pedestrians	Number	more 5kg load	Less 5kg	No load	Livestock to market
Female pedestrian	59	11	14	32	2
Male pedestrian	35	6	12	17	

Cyclists	Number	1 passenger	over 5kg load	Neither
Male bicycles	61	23	15	23
Female bicycles	7	3	-	4

Motorcycles	Number	1 passenger	2 passenger	3 passenger	Load only	Load in addition to passengers
Male motorcyclist	2	2	-	-	-	
Female motorcyclist	0	-				

Animal drawn	Number	Full	Half full	Empty	1 passenger	2 passenger	3 passenger
Animal drawn	2	1	1	-			

SUMMARY SHEET – VILLAGE SPOKE (Kisiriri – Tulya and Ruruma - Ulemo) Market day

Mode	Numbers	Over full	Full	Half full	Empty	Primarily Freight	Primarily Passengers
Trucks - less than 3 tonnes	0	-					
Trucks - more than 3 tonnes	0	-					
Buses (more than 20 seats)	0	-					
Rural taxis - Mini bus (less than 20 seats)	0	-					
Rural taxi - pick ups, 4x4s	2	2	-	-		1	1
Taxi - cars	0	-	-				
Government / NGO -car / pick ups/	4	-	2	-	2	-	2
Government / NGO - trucks	0	-	-				
Private - car, pick ups, 4x4s	0	-					
Pack donkeys	12	2	6	2	2		

Pedestrians	Number	more 5kg load	less 5kg	No load	Livestock to market
Female pedestrian	104	12	35	57	
Male pedestrian	34	6	12	13	3

Cyclists	Number	1 passenger	over 5kg load	neither
Male bicycles	73	25	22	26
Female bicycles	13	4	4	5

Motorcycles	Number	1 passenger	2 passenger	3 passenger	Load only	Load in addition to passengers
Male motorcyclist	4	3	-	-	-	1
Female motorcyclist	0	-	-			

Animal drawn	Number	Full	Half full	Empty	1 passenger	2 passenger	3 passenger
Animal drawn	4	2	1	1			

Annex 4

Examples of passenger fares and freight costs in Singida Region

Examples of passenger fares in Singida Region, Tanzania

Vehicle type	*Start*	*Finish*	*Spoke type /condition*	*Distance km*	*Fare TZS*	*Fare per km (USD cents)*
Local bus	Singida	Kiomboi	National, regional graded	110	3000	2
Local bus	Ibaga	Arusha	National, regional, graded	350	12000	3
Rural taxi	Singida	Ngamu	Regional, graded	56	2000	3
Bicycle taxi	Luono	Ibaga	Market, earth	35	1000	3
Local bus	Ibaga	Haidom	Market, earth	76	3000	4
Local bus	Ibaga	Singida	Market, earth	96	4000	4
Local bus	Manyoni	Heka	Market, earth	47	2000	4
Local bus	Manyoni	Sasilo	Market, earth	64	3000	4
Rural taxi	Singida	Makhandi	Market, earth	30	1500	5
Bicycle taxi	Kizaga	Ndago	Market, earth	18	1000	5

Examples of freight costs in Singida Region, Tanzania

Start	*Finish*	*Spoke/road type*	*Distance km*	*Price TZS*	*Price per km TZS*	*Price per tonne-km USD*
Rural taxi (100 kg sack)						
Kiomboi	Singida	Regional, graded	110	4000	36	0.33
Kiomboi	Misigiri	Regional, graded	21	1200	57	0.52
Ibaga	Haidom	Market, earth	70	4000	57	0.52
Kiomboi	Kisisiri	Market, earth	15	1000	67	0.61
Rural taxi pickup or 4x4 hired (10 sacks x 100 kg maize)						
Ibaga	Singida	Regional, earth	96	60,000	625	0.57
Kiomboi	Misigiri	Regional, graded	21	30,000	1429	1.30
Hire of freight truck (Ten tonnes, 100 sacks of 100kg)						
Singida	Chikada	Regional, earth	150	400,000	2667	0.24
Bicycle taxi (50 kg load)						
Luono	Ibaga	Market, earth	35	1000	29	0.52
Kizaga	Ndago	Market, earth	18	1000	56	1.01
Pack donkey (50 kg load) without operator						
Tulya	Kiomboi	Market, earth	10	1000	100	1.82
Pack donkey (50 kg load) with operator						
Tulya	Kiomboi	Market, earth	10	3000	300	5.45
Ox cart (500 kg load) with operator						
Tulya	Kiomboi	Market, earth	10	2000	200	0.36