A STUDY OF TRANSPORTATION PROBLEMS OF MASERU TOWN, LESOTHO WITH SPECIAL REFERENCE TO PUBLIC TRANSPORT

BY

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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This thesis has been submitted for examination with my approval as a University Supervisor.

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ABSTRACT

Transportation is inextricably woven up into man's life on earth. Movement is essential in order for man to meet his demands. However, various problems are encountered in this activity as some of the natural barriers such as mountains cannot be conquered. This results in long routes which are what man would avoid in an ideal situation. Some of the problems are capable of amelioration and when that has been achieved man's life is made more comfortable and convenient.

In urban areas the need for movement is more emphasized because of the variety of activities carried out. Traffic is a function of human activities and the more the activities the more the journeys. Most town dwellers depend on employment for livelihood and this necessitates daily movements from and to places of work. In these movements problems are inevitable. Thus transportation problems are largely unavoidable especially where terrain is difficult indicating man's inability to completely tame nature to suit his needs. In addition, some of the problems are a necessary consequence of the way man deals with nature. Thus all man-made systems have setbacks which are man-s creations themselves.

Transportation plays a crucial role of connecting diverse land use activities. As such it is a very broad field which requires other studies to be undertaken in order to answer questions posed by it. Thus it was necessary to conduct a household questionnaire in this study. The questionnaire captures the demographic, economic, social and physical aspects which are all necessary for transportation studies. Observations, interviews with operators and traffic counts were also carried out to complete this study. The results from these have been analysed and show trends and magnitude of the problem in Maseru town. It is held that the knowledge of the trends and magnitude of the problem is a useful step towards defining possible solutions. A structured random sample was used giving each respondent a fair chance of being represented. It would be correct therefore to argue that the results obtained apply to Maseru town in general and not only to parts thereof.

Transportation problems of Maseru town arise from two major sources. These are internal and external. Of the internal sources the cardinal factors include topography, land use arrangements and lack of policy guiding urban and transport development. Various combinations of these factors have resulted in most residential areas being inaccessible. Even where

there is a measure of accessibility, the roads are poorly maintained thus discouraging public transport services into the areas. This is a very unfortunate situation because Maseru town is highly dependent on public transportation for the movement of its dwellers. The town centre is not an exception to the plight as the inefficient arrangement of land uses there have resulted in congestion especially around the traffic circle, and in and around the central bus terminus. Passenger facilities are extremely bad both within the town centre and out in the residential areas.

To add to these problems which mainly emanate from management, Maseru over weekends and public holidays has to cater for additional high demand for public transport from external sources. This is dominated by migrants travellers from South African mines. This high demand meets with poor organization and induces other problems such as "piracy", overloading of the transport system of Maseru and increased incidents of thuggery.

Maseru also houses the railhead which is a branch of the South African Railways. Through the South African Railway rating policy Lesotho loses valuable income to South Africa as railway transportation costs. It could be argued that had it not been for

Maseru in relation to the railhead that revenue could have been gained rather than lost. The railhead also overloads the roads networks of Maseru which are already limited resulting in congestion, especially along Moshoeshoe road as the hauliers move goods inland from the railhead.

Most of these problems can however be solved with concerted efforts from the Government of Lesotho and the Maseru Town Administration. There is need to see these issues as requiring urgent attention. It is argued that since policy provides guidelines for action, the most pertinent solutions could be achieved by starting with the formulation of relevant policies. There is need to formulate policy on land uses and introduce a land use development plan for Maseru. This will ensure that proposed improvements are safe-guarded against undue intrusion which leads to weak controls and poor structure.

It is considered however that policy cannot be effective if it is not backed by relevant institutions. Existing institutional machinery is not only weak but poorly coordinated. This needs to be improved upon to ensure harmony, continuity and efficiency.

It is also important to coordinate activities

of town planning with those of transport planning. These two are actually two aspects of the same cause and should not be separated. Separating them could result in inefficient development which is what already plagues the town.

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CHAPTER ONE

INTRODUCTION

Man interacts with the physical environment in many complex ways. This interaction helps man to adapt to nature as well as induce man to change whatever he can out of nature to suit his needs. Thus ancient man developed the use of fire, domesticated plants and animals and invented tools to help him harness more of nature's resources.

A large part of man's life on earth depends on his ability to satisfy his needs. In other words man's environment consists of adapted spaces which are attempts to satisfy his needs[1]. Such adapted spaces are important cause and effect of the division of labour and specialization. Specialization embodies role differentiation. The different roles require specific locations in which they can be carried out. Some of the roles have to be accommodated in spatially separate locations. The necessary consequence of separation of activities is communications. Communications serve to connect activities which are locationally separate. Locational separation of activities becomes necessary as some activities are

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1. G. Chadwick, A Systems view of Planning (Oxford : Pergamon Press, 1971).

mutually exclusive, while others are location-specific and otherwise it would be impossible to place all activities together in one place. It was realization of these facts which led to development of transportation systems. Man is a social animal and thus needs to communicate with others. Transportation affords such communication and helps to move resources around so that they can be used. Movement is an important part of human life. In the relentless fight with nature man has to move. Even Neolithic man used to move from one place to another in search of food and other utilities. In such movements few possessions would be carried. Thus transportation is defined as movement of goods and persons from one place to another. Such movement should also have a purpose. Sometimes the purposes tend to conflict and when that happens, it is an indication of the contradictions that man has to deal with.

Man has thus far not been able to adapt himself completely to the environment. The more he intensifies his efforts, the more problems he creates not only for the environment but also for himself. Thus we find that all man-made systems are prone to problem situations. Transportation problems to be dealt with in this work are but some of the incomplete adjustments man has made to nature. In the final analysis, we find that

even though transportation plays a major role in economic development (one of man's goals), like all other systems or adapted spaces it is riddled with problems. Such problems range from those related to maintenance to those relating to management. There is a tendency for problems of whatever nature to assume greater proportions in urban settings. This is as a result of the conglomerative nature of such settings with attendant high populations and diversified activities. As mentioned above, the more diversification there is, the more the need to locate separately thus calling in the transportation issue.

Transportation plays a major role in urban areas as a result of their structure and function. As such transportation need not only be a service to urban areas but is also an important part of them. Basically, cities and towns are made of buildings and transport. The result is that imperfections in any of the component parts is bound to have repercussions for the other parts. It is thus necessary to view the urban area as a system within which all kinds of subsystems operate and need to connect to each other through transportation. Urban dwellers are parts of that system and likewise need to connect to other parts of the system to make their lives whole. Exogenous factors also affect operations of the system. In the case of

transportation such factors would include, pass-through traffic, sales and location of the town or city in relation to other towns and centres and employment patterns among others.

1.1 PROBLEM STATEMENT

It is held in this study that the transportation system of Maseru town has demonstrable imperfections. The town relies on road transport like many other towns and cities in the Third World. The imperfections are a cause of more problems which road users encounter. Some of the problems arise out of the peculiarities of the road system as it obtains in Maseru while others stem from the fact that man-made systems are always prone to problems. Of the first set of problems there are those of topography which does not allow road development towards the north west of the town. Other problems in this category result from the position and role of Maseru with regard to South Africa, the rest of the country and the labour migrants' choices. From the second set of problems there are those of inclement weather which cannot be controlled while causing a lot of inconveniences to travellers. Such inclement weather can be experienced in winter more than at any other time. Other problems from this category include those of conflicts in land use patterns. Sometimes such conflicts cannot be avoided even though they may be undesirable.

Maseru is an urban area and accommodates more people and hence more activities. The brunt of the transport problems experienced in the town is borne by public transport users. These constitute the majority of the town dwellers. In fact it happens that even the private car owners use public transport vehicles at one point or another in their life. So it becomes essential to capture the problem in its broadest sense rather than concentrate on a small section of it and perhaps sacrifice accuracy.

Transportation has a role in economic development. However, if it has hurdles which remain unsolved, it cannot play its role effectively. Identification and analysis of the problems will point towards directions in achieving their solutions.

Such solutions become more pertinent when considering the place of Maseru both nationally and internationally. Nationally, the town not only displays features of urban primacy but is also a town 'Par excellance. It is the capital, the administrative centre and the most populous of Lesotho's urban centres. It contains some 6.8% of the total 14% of the country's urban population. The remaining 51.3% is shared amongst twelve other urban centres. None of these centres contains half the population of Maseru which brings to the fore the unique features of the town.

Table 1 shows these characteristics.

Table I:Lesotho's urban centres and their populations

Name of Centre	Population	% of total urban
Maseru	107,536	48.7
Leribe (Hlotse & Maputsoe)	18,653	8.4
Berea	12,934	5.9
Mafetseng	12,171	5.5
Botha-Bothe	8,340	3.8
Mohaleshoek	7,675	3.5
Qachasnek	4,595	2.1
Quthing	4,306	1.9
Mokhotlong	2,394	1.1
Thaba-Tseka	2,149	0.9

Source : Adapted from Lesotho National Census, 1986.

(Note : other urban centres are not included in Table 1 above.

Khubetsoana falls within Berea administrative district but is nearer to Maseru town than to Berea. Also it is part of Maseru town Administrative area although falling outside Maseru District).

Maseru in addition displays a very rapid growth rate of 3.4% a year[2]. This growth rate seems to outstrip national efforts to provide basic infrastructure and social amenities. A critical examination of the adequacy of such services becomes important therefore.

Of all towns or centres in Lesotho, Maseru is the only one with rail linkage from South Africa. It thus becomes a major exchange point for goods and passengers moving from the railway systems entering into the road system and vice versa. Due to the geographical position of the country all goods enter or leave Lesotho through South Africa (Map 1). Some of the goods thus transported include crucial items such as foodstuffs and agricultural imports. These accounted for some M217,457 in 1985[3].

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2. Bureau of Statistics, Population Census, 1986 Preliminary Report, (Maseru, January 1987) p.7

3. Ministry of Planning and Economic Affairs, Economic Sanctions on South Africa and their Implications on Lesotho, (Maseru : July 1986), p.10.

The rail head, in addition, helps in the transportaion of energy requirements, mainly coal. Coal is transported by rail from South Africa and is distributed throughout Lesotho by the road systems. Coal provides 15% of the total energy requirements of the country[4]. This has implications for the transportation systems of Maseru from where the distribution takes place.

There is a small airport on the outskirts of Maseru. This airport mainly serves the remote parts of the country, especially for the Flying Doctor Services. The only way to connect to it is by road. In addition, Moshoeshoe I International airport situated some 20 kilometres from Maseru also affects transport functions in the town. All passengers who board planes to destinations such as Zimbabwe, Botswana, Swaziland and Mozambique have to be accommodated in Maseru and connect to the airport by road. From the same airport emanates some 52 flights a week to some 14 domestic destinations.

However, to every use there tends to be some side effects. Such is the case when the road is used not only for purposes of vehicular movement but is also used for market activities. This causes dangerous intrusion of the activities and pedestrians onto the

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4. Ministry of Planning, P.16.

road space (Plate 1). A conflict situation thus arises creating problems for office flow.

The question of public transport features significantly in this connection. Four kinds of vehicles are used for public transport purposes in Maseru town. These include taxis and minibuses (coasters) which are mostly privately owned and account for some 61% of the other means of public transport. There are also buses which are owned, and run by Lesotho Army and Police Force. These are wholly subsidised by government and account for 37% of the other means. The remaining 2% is accounted for by private hire taxis (speedy) which move on a nonstop basis from door to door[5].

It is significant to note that Maseru being the most populous and biggest in terms of industrial development and administrative offices, it has attracted large numbers of migrants from the rural areas. These establishments imply great numbers of workers. The labour force thus created has to be reckoned with as journey to work is one of the major reasons for travel. This increases the need for the use of public transport as private car ownership is low.

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5. Moeletsi oa Basotho Newspaper supplement. June, 1987.

If the transport system of Maseru town had to respond to internal demands only, perhaps solutions to the problem could be found more easily. However, the problem is compounded by the influence of external traffic of both goods and passengers. Goods enter and leave Lesotho through South Africa. By all standards the transportation network of South Africa is very advanced and thus creates an uneasy relationship to that of Lesotho. Maseru being also a border town has to accommodate direct road traffic from South Africa in addition to rail traffic.

Many (about 130,000) young Basotho men work as migrants in South African mines. These people travel frequently to Lesotho especially over the weekends using either the road or the rail. This means increased volume of traffic at any one border post of the country at weekends and during public holidays. Maseru usually bears the bulk of this traffic as it is the most popular exchange point for passing through traffic into the interior parts of the country. Estimates put the migrant traffic passing through Maseru at 80% of the total traffic travelling home over Christmas holidays[6]. Although other centres in Lesotho also have direct border connections with South Africa they

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6. Moeletsi oa Basotho, Loc.cit.

are not as popular. Maseru offers relative easy access to major destinations in South Africa. The second most popular border post is Maputoe. So with Maseru ranking high in terms of destination from South Africa, the feature of external traffic puts strain on the internal transport system of the town. Over weekends public transport vehicles become scarce. At this time demand exceeds supply and thus public vehicles go to "pirate" other routes especially inter-urban ones. Vehicles normally operating within the town during weekdays seek profit by ferrying migrants to other towns over weekends. The sudden increase in volume of traffic far exceeds what is expected under normal circumstances. Thus travellers experience problems of shortage of vehicles on intra-urban roads and the management has to live with the law breaking by pirate vehicles.

Maseru has two kinds of traffic each of which is catered for by public transport. There is working days traffic which consists mainly of journey to work trips by local town dwellers and weekend traffic composed of migrant travellers.

Maseru houses most of the industries that are found in Lesotho. With the industries comes the issue of workers who are employed in them and thus need to

travel to and from them. Apart from the workers, the volumes of goods used as industrial inputs and outputs also affect the transport system. In 1980 eighteen industrial plants were surveyed in Maseru. It was found that 13 of them had imported 100% of their raw materials, 3 had imported 80% and 2 had used 100% locally available materials[7]. When considering the origin of such raw materials and the way in which they reach the processing sites, the transportation system is clearly affected.

Activities in the urban areas reveal the multiplicity of land uses that such activities involve. As such it becomes necessary to capture the dimensions of such land uses as far as possible. This requries defining problems in both structural and theoretical terms in order to understand the relationships between the land uses including transportation. To make optimal use of the land uses they should be accessible, thus defining the role of transportation in them. Inaccessibility of some land uses would mean incomplete use of the land concerned and insufficiency of the transport system. Land uses should be such that they are able to economise on transport costs accruing to the user

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7. Ministry of Planning and Economic Affairs, P.17.

while at the same time relating to the channel in the best optimal way. This calls into play the integrated approach to urban development which seeks to promote the desired systems of land use. This implies recognizing those land uses which could be placed together with minimum or no conflict as against those which could not. For example, schools, especially nursery schools can fit very well in residential areas while factories which emit noxious substances cannot. An appraisal of the connecting facilities thus enables us to say whether the system functions properly or not. Transportation is an integral part of land uses.

It is worth noting however that Maseru town is an example of lack of proper planning and management. As a result, like many other towns and cities of the third world which are poorly managed, it has a heavy concentration of employment in the central business district. Coupled with this is highly dispersed residential areas. This arrangement results in great transportation problems. In other words, the road system, that is used even though it may be insufficient, is used inefficiently. The result of this arrangement is

(a) intensive use of the infrastructure during few hours of the day only.

(b) due to the juxtaposition to South Africa and migrants' travel needs over weekends there is overloading of the transport system which barely copes especially over the weekends.

(c) intensive use of the transport system in one direction only. The tide is centripetal in the morning and centrifugal in the evenings[8].

The use of the road transport systems therefore become extremely inefficient as there is no fair distribution over the day or over the weekends. As such the existing structure of traffic would suggest more extensive infrastructure than would be the case if the town was better organized spatially. The problem is worsened by the lack of control that the town has over externally generated traffic which impinges on its internal transport system.

Thus it becomes essential to view the urban systems of Maseru town in totality and in relation to other systems which have a bearing on it.

To sum up, the problems of transport in Maseru town is a multidimensional one and hence necessarily

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8. R.E. Dickinson, City and Region, (London : Routledge and Kegan Paul, 1964), p.187.

broad but could be put briefly as follows:-

First, there is a problem of poor management and control. This affects all sectors of transport usage and supply.

Second, there is inefficient use of the road in that there is diurnal peaking of traffic. The separation of the workplace and the dwelling place seems to be the root cause of this problem. In the mornings there is movement towards the town centre where most places of work are located. This means using only one side of the road while the other remains almost free of traffic. In the evenings the process is reversed when people move towards residential areas. These streams and their reverse in the evenings have been described as tides of daily "ebb and flow"[9]. This problem also manifests the conflict that exists between man and land use. The morning and evening peak hours show the desire of man to move from one place to another all at the same time. Conflict arises because too many people wish to travel all at the same time and thus make demands upon the transport system. However, the limitations in the system make it impossible to satisfy the demand efficiently.

Third, being an unplanned town, Maseru's urban structure is itself a problem to effective transpor-

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9. Dickinson, p. 186.

tation system. Some of the land uses are badly placed while others conflict making it quite difficult to service them efficiently.

Fourth, the feature of external traffic also plays a major role which compounds the problem to a noticeable extent especially over weekends. Increased volume of traffic experienced over weekends and public holidays as a result of migrants from South Africa places a great stress on internal public transport services. This couples with both passenger and goods traffic that result from the railhead. Maseru, however, does not get any revenue from the railhead. The system is wholly run by South African Railways. This ties to the management problem and represents revenue lost which could be collected to undertake development projects within the town.

The problems affecting the transportation systems of Maseru town could thus be divided into those resulting from external factors and those which come from internal factors.

1.2 JUSTIFICATION FOR THE STUDY

1. The study was carried out in order to fulfil some of the requirements for the M.A. Planning course.

2. The study seeks to bring up new dimensions to the the transportation problem of Maseru. Other works done on the question were mainly in report form conducted by consultants and were less elaborate. Such reports also viewed the problem as emanating from the internal factors only. So this study will be the first one to deal with the problem from two dimensions, namely internal and external.

3. In most other countries, external traffic would be from more than one country. For example, in Kenya, external traffic can go to or come from Ethiopia, Tanzania and Uganda and so on. However for Lesotho such traffic would be originating or be destined to one country only - South Africa. This is a unique feature relating to the geographical position of the country in general. The dimensions of this feature are therefore interesting points of study.

4. The study also forms a basis for issues that can be considered when transport planning of Maseru is undertaken. Transport planning and town planning are equal partners working together. This is the issue the study addresses.

5. Should other researchers (students) see the work, it will also help them to shape their own ideas based on the study itself and on the suggestions for further research.

6. Maseru town faces problems of uncontrolled growth, lack of a development plan, lack of transportation planning and poor transport management. The study attempts to make suggestions as to how these problems can be solved. It can thus be of interest to those with town planning interests.

1.3 OBJECTIVES OF THE STUDY

The aims of this study are:-

1. To analyse problems relating to road transportation as the predominant mode of transport in Maseru town. Specific attention will be paid to public transport as an essential means of travel.

2. To recommend solutions for the problems bearing in mind financial and other constraints.

3. To make recommendations on transport policy issues giving special attention to public transport and land use issues of the town.

1.4 SCOPE OF THE STUDY

The study is concerned with:-

1. Brief investigation of government policy on urbanization as contained in the urban government Act of 1983.

2. Evaluation of policy on the growth of Maseru and the implications for transportation.

3. Outlining the historical development of Maseru town paying attention to factors which shaped its ttansportation system.

4. Detailed assessment of the road transport system of Maseru with special reference to public transport. This will include looking at factors of demand (population, work-places, residential locations and so on) and factors of supply (policy, income and others).

5. Appraisal of the structure and factors affecting traffic generation and distribution, road layout including its adequacy to connect land uses, modes of transport, provisions for public vis-a-vis private means of transport.

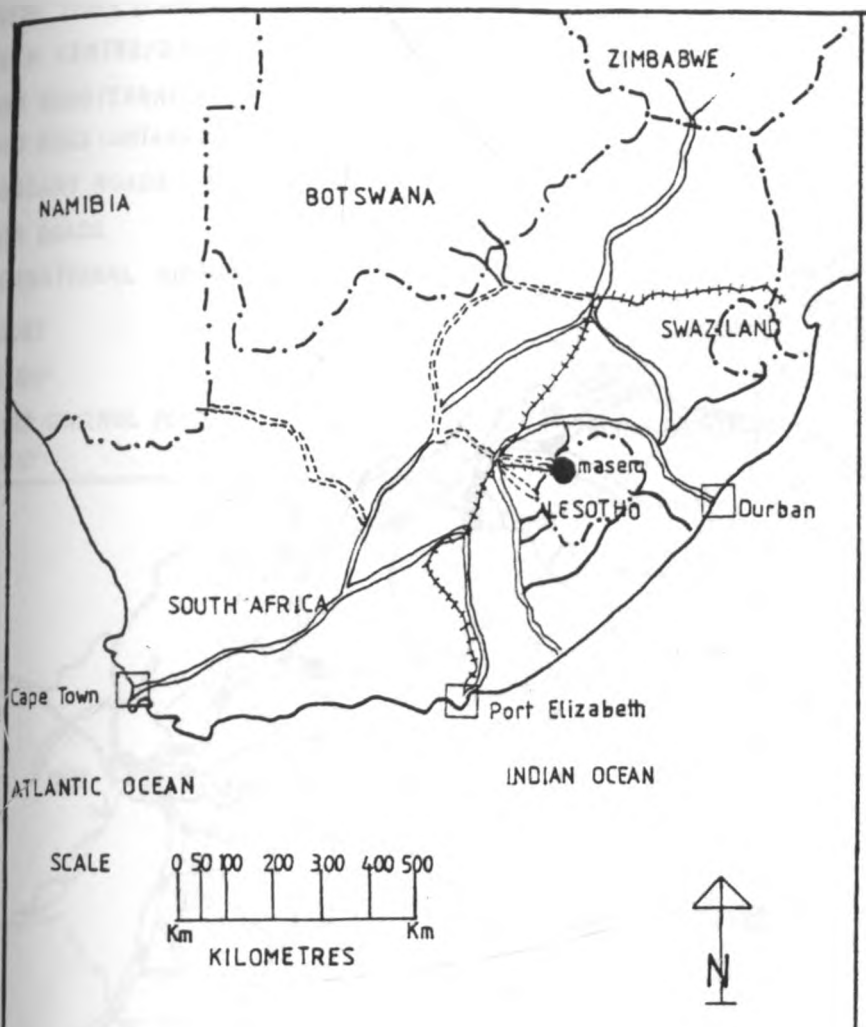
6. Evaluation of land uses within Maseru town and relating them to the road system.

1.5 BACKGROUND

1.5.1 The Study Area

Maseru town, the capital of Lesotho is located on the eastern banks of Mohokare river which forms the western border between Lesotho and South Africa. The country itself is wholly located within South Africa as Map 1 shows.

Maseru town covers an area of 136 square kilometres and has been designated for municipal council administration which was scheduled to start in 1987. The area extends from Mohokare river in the west and north. It extends up to Ntsaratsana river in the east and to the Phuthiatsana river in the South. The area stradles the boundary between Maseru and Berea districts (Map 3).

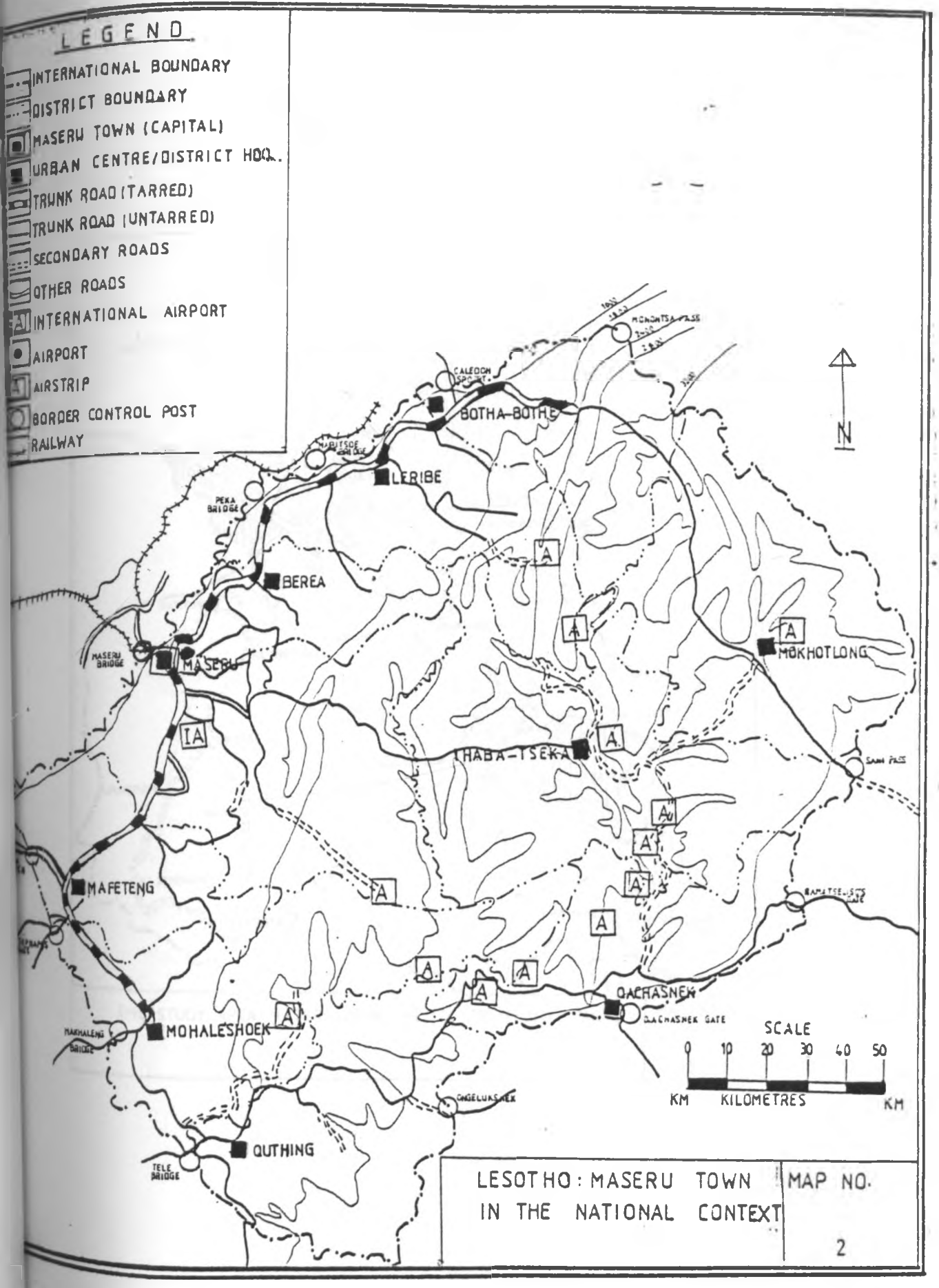


LEGEND

- INTERNATIONAL BOUNDARIES
- ARTERIAL ROADS
- MAIN ROADS
- OTHER ROADS
- RAILWAY
- SEA PORT

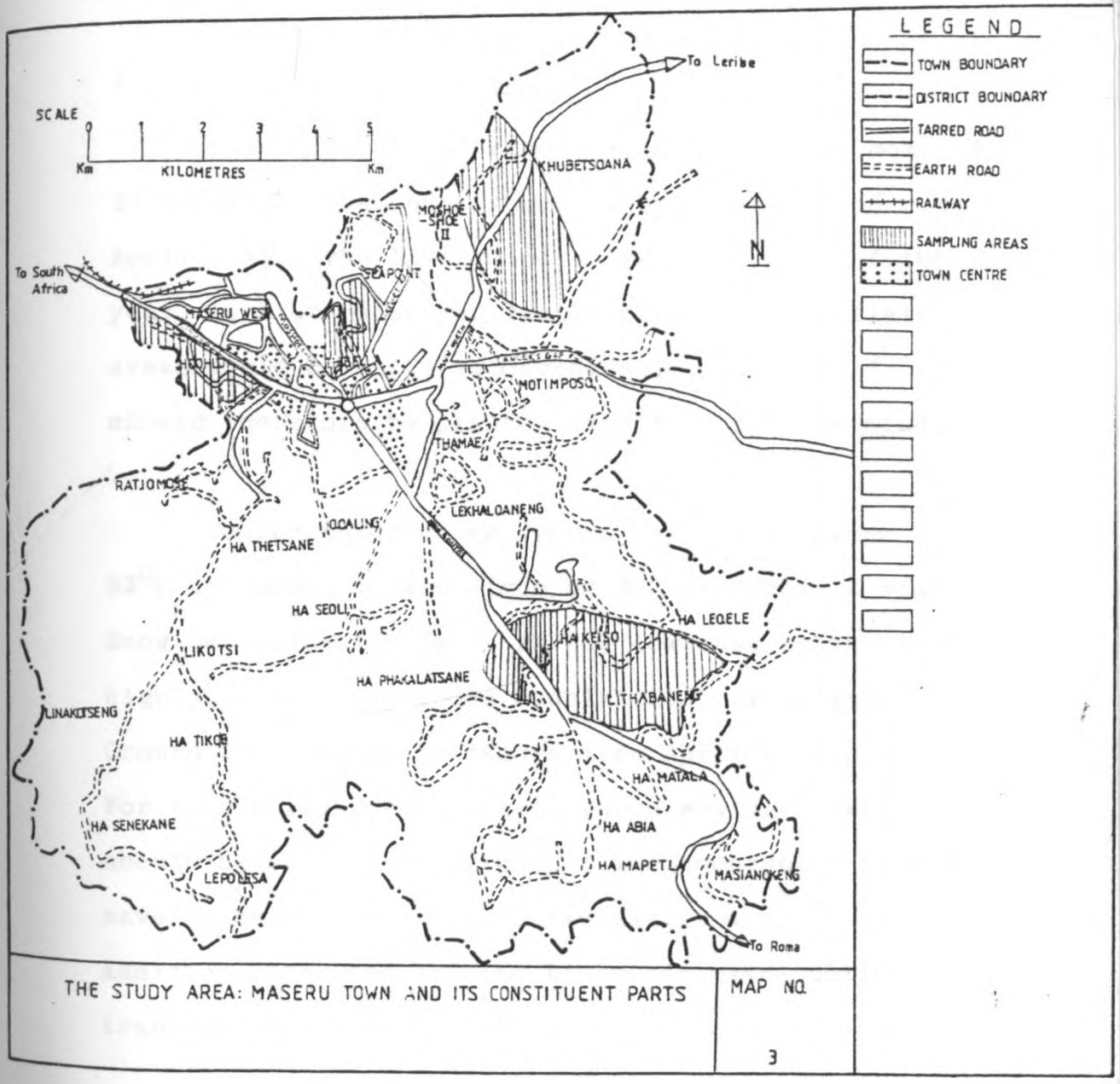
LESOTHO IN THE CONTEXT OF SOUTHERN AFRICA

MAP NO. 1



LESOTHO: MASERU TOWN IN THE NATIONAL CONTEXT

MAP NO. 2



THE STUDY AREA: MASERU TOWN AND ITS CONSTITUENT PARTS

MAP NO. 3

Maseru is part of the lowlands of Lesotho which average 1,600 metres above sea level and contains more population and the best agricultural land.

1.5.2 Climate and Seasons

Rainfall ranges from 700 to 800 mm. and most of it occurs in the seven summer months from October to April. With the likelihood of rain for most of the year, lack of passenger facilities in residential areas could be quite inconvenient. Transport facilities should therefore be planned with this fact in mind.

Temperatures range from a day time maximum of $32^{o}C$ in summer to a minimum of $8^{o}C$ at night in winter. Snow occassionally falls in the lowlands unlike in the highlands where it snows consistently every winter. Ground frost commonly occurs from April to September. For transportation purposes, these weather changes should be seen in the light of inconveniences people have to bear with where no facilities are provided. In addition, the long waiting times can make public transport users suffer.

1.5.3 Geology

Maseru is characterized by sedimentary rocks which range from red and purple shales to white sandstone which occurs up to 1800 metres. Indeed the name Maseru is

derived from a particular kind of sandstone found in the area.

This stone is not suitable for road construction and actually hinders work due to its granular features. So there is this constraint when construction is considered.

1.5.4 Population

The population of Maseru has increased rapidly since the last census from 55,000 in 1976 to 107,536 in 1986[10]. At this rate the population will be 171,729 by the year 2000. This growth rate has implications for the provision of infrastructure services and land use activities. So any planning should take into account the fact that population growth means more in terms of the structure of town and the services accompanying.

At present, existing population densities in Maseru are low. Greatest densities occur in the older parts of the town surrounding the central area. With high population growth rate most of the low density areas may be high density. Considering the uncontrolled manner of development, some areas may need to be reserved now for future transport development purposes.

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10. Bureau of Statistics, p.1

1.5.5. Future Urban Growth

It can be anticipated that all areas of town will grow significantly within the next five or more years. Population densities will rise, land use patterns will change and become denser and the demand for transport services will be higher. So any planning that is considered will need to take into account the anticipated future growth and the demand it will generate for services such as transport.

1.5.6 Topography

Maseru town is located on the banks of Mohokare river which forms the border with South Africa, As such expansion to the west is not possible. Maseru is part of the lowlands of Lesotho which on average rise to an altitude of 1600 metres above sea level. However, it has its share of the rugged terrain. On the South-west part of the town centre is located a hill called Mpokho, The hill runs from Thabong and ends at Ha Thetsane on the environs of Mohokare river. The distance covered is roughly about 16 km. The hill also separates the town from the villages on the other side, such as Qoaling, Likotsi and others.

This hill presents a problem for town development as well as road construction, The town

cannot be expanded onto the hill. Although there are some buildings on the hillside they are very few. This hill also hinders construction of a road that would directly connect to the residential areas on the other side. This means more expensive construction as the roads at present follow a long route which could have been shortened by cutting through the hill and connecting directly. This is a development threshold which needs to be taken into consideration when planning the town and its transport. Because of the presence of the hill, especially at its southern side at Thabong, some houses are not accessible by car.

1.6 HYPOTHESES

1. Road transport is the most predominant mode of transport within Maseru town.

2. Public transport is the most dominant means of connecting to activity sites.

3. Most trips made in town are between work places and residences.

1.7 STUDY ASSUMPTIONS

The study makes the following assumptions:-

(a) that it is possible to undertake transport planning for Maseru town.

(b) that Maseru town will continue to grow and thus lead to increase in demand for services such as transport, housing and others.

(c) that the road system will continue to be the most important channel of communication within Maseru town.

(d) that prices of goods and services will rise implying expensive transport development and high costs of road development.

(e) that Lesotho will not be able to increase its exports resulting in reduced buying power for essential goods and services. This would mean that extra costs to be incurred for transportation improvements would have to be supplemented by financial resources from outside the country. This would require arranging some sort of international funding for projects.

1.8 METHODOLOGY

The study is essentially descriptive in that it describes problems that relate to transportation in Maseru town. The study however goes on to make recommendations to solve the problems identified. The study is not experimental so it does not deal with dependent or independent variables as well as control variables. There is no phenomenon that is subjected to testing in a scientific manner.

In order to deal with the relevant issues both primary and secondary sources of data were used in this exercise.

1.8.1 Secondary Sources of Data

Secondary sources of data used in this study include literature reviews. Several books have been consulted which deal with the subject. Also reports from various government ministries were looked into. Such sources included Central Bureau of Statistics, Ministries of Labour, Interior, Works, Transport and Communications, Trade to mention a few. Parastatals sources included L.N.D.C.

In addition, the Lesotho Bus and Taxi Owners Association meetings were attended.

1.8.2. Primary Sources

It would have rendered this exercise incomplete if only secondary sources of data were used. To supplement these, primary sources were also employed and included a household questionnnaire, observations and traffic counts.

The traffic counts were performed along major routes and junctions at particular times of the day.

A questionnaire whose version appears in the appendix was administered to some 1% of households in selected areas around Maseru Central area.

Households were used as sampling units because they were thought to be more representative of the phenomenon under study. A sample which concentrated on motorists would have been not only involving, but also unrepresentative of the public transport issue which is a major consideration in this study. The choice of households as units in this study thus becomes justified, for all motorists originate from households while not all road transport users are motorists.

1.8.3 The Sampled Areas

The sample was selected from four residential areas around Maseru Central area. These were Khubetsoana, Hoohlo, Thibella and Lithabaneng residential areas. A structured random sample was used.

Khubetsoana which is located about 4 km. from the town centre is towards the north west. This area administratively falls within Berea district although it is more part of Maseru town than Teyateyaneng. As such it is affected more by the development of Maseru town. This area has been used for the development of medium and low income housing schemes by Lesotho Housing Corporation. It is considered to have potential for growth of the town. It thus presents an interesting case for study because of its unique features namely that it is part of another district, is a planned housing area and has potential for growth.

Ha Hoohlo residential area represents a combination of factors. It is located between the Mohokare river and the railway station. This area is made up of some parts of the old Hoohlo village and a mixture of modern high income residentials. It also contains a large number of civil servants' quarters. It is adjacent to the high income residential areas of Maseru west and

Florida. Non-car owning residents of this area become the worst sufferers of over weekends due to scarcity of public service vehicles.

The Thibella residential area is located less than 2 km. from the town centre. This area has grown to assume slum-like conditions characterized by squalor, illegal brewing and accommodation of the less fortunate members of the community. The people who frequent the area include those who are seeking employment and are unable to find accommodation elsewhere in town. This area is placed between the town centre and the middle to high income residential area of Moshoeshoe II. Being next to the town centre the area is relatively well-served by roads, shops, butcheries and is the only one that has a social hall. This area is locally referred to as "location" expressing the congested and low class sort of residences where black people live in South-Africa.

The fourth area chosen was Lithabaneng. This area is a mix of not only the old villages, but also peri-urban features including very modern developments. It is located about four kilometres from the town centre along main South 1 to the International Airport. The area straddles the main South 1 road and is bordered by

Borokhoaneng to the north, Ha Leqele to the East, Qoaling to the west and 'Nelese to the south.

Each area was chosen to represent specific features of the town so that a picture that is derived is as representative as possible. Selection criteria was designed in such a way that the diversity that accompanies each area is captured. The criteria included position in relation to town centre, the general stage of development (modernity) in the area, age and other distinguishing features. After selecting the areas this way, a sample was taken from each of the selected areas. Random sampling method was used to select households within each of the areas. Thus 55 households were contacted at Khubetswana, 50 at Hoohlo, 40 at Thibella and 55 at Lithabaneng resulting in 200 households in total. A questionnaire was administered to these.

The intention was to select the largest sample possible while at the same time giving due consideration to financial and time constraints. So 200 was decided upon as the most manageable sample within the time and finances at the disposal of the researcher.

1.8.4. Statistical tools of Analysis

Statistical tools that are employed in this study include graphs (bar), frequency tables, averages and percentages. There is extensive use of descriptive statistics.

Visual aids used include maps and photographs.

1.9.0 LIMITATIONS OF THE STUDY

1. The major limitations the study has faced is that of dealing with transportation which is a land use activity while there was no land use map on Maseru. Thus a detailed layout plan for the individual areas was not possible to construct.

2. Maseru is characterized by uncontrolled growth. This makes it difficult to separate land uses as in most cases there is a mixture of land uses with ill-defined boundaries.

3. Due to limitation on time and finance it was necessary to omit some of the other details such as interviewing motorists. Interviews to public transport operators were only done to a limited extent and were confined to informal discussions.

4. Unavailability of records also hampered the study. There was a general paucity of data from ministries and departments. This perhaps is attributable to the fact that no transport planning is seriously undertaken in the town. This limits the extent to which comparisons could be made.

1.10.0 DEFINITION OF CONCEPTS

For the purposes of this study the following concepts are defined:-

1. Transportation - a service which enables movement and circulation of goods, services and people between and within various places.

2. Road transportation - the function of movement of goods, service and people as it uses the road as a channel. In other words it is all vehicular traffic on roads.

3. Public Transport - an organized means of travel from one place to another capable of moving large numbers of people at a time. This can be private or corporate run. Vehicles in this category range from cars with a capacity of 5 people to buses which can carry up to 80 people. Such must be duly licensed to operate by the Lesotho Road Transport Board.

4. Land uses - activities that take place on site. These are differentiated according to kind, intensity of usage and location. These may be residential, commercial, industrial, public purpose or educational.

5. Accessibility - the ease with which one activity site can be connected to others through transport channels. It combines the geographical arrangement of land uses with the means of transport connecting to them.

6. Taxi - a minibus or E 20 vehicle used for public transport purposes. Such vehicles are largely privately owned. (They are the equivalent of matatu in Kenya)

7. Hire Taxi - a public transport vehicle with a capacity of up to 5 passengers which delivers them to their doorstep.

8. Pirate - any of the public transport vehicles that carries passengers on routes for which it is not licensed. Also a vehicle which is not a licensed public service vehicle but offers public services.

9. Lesotho - the country that exists now in the midst of South Africa. The people who inhabit it are called Basotho and the language is Sesotho.

CHAPTER TWO

LITERATURE AND POLICY REVIEWS

The purpose of this chapter is to present a review of some of the works that have been done on transportation. There will also be reviews of Lesotho's policy on urbanization and transport.

2.1. The Literature :

Various writers have dealt with the subject of transportation. The literature deals with a lot of issues ranging from planning to general problems regarding transportation. Most of this literature however deals with issues relating to countries such as Britain and the United States which may have little relevance to issues in the developing countries. Such literature, in addition, tends to generalize transport problems of developing countries as resulting from narrow streets or a mixture of traffic where animals interfere with vehicle traffic. This generalization fails to address specific issues which obtain in individual cases. Where such an attempt is made to assess individual cases, the conclusion is usually that poverty is the cause of transport problems. While this may be the case, it ignores most of the other relevant features such as management, terrain, external influences and so on. It is the purpose of this study

to fill the gap that exists as regards transportation problems of Maseru town which display unique characteristics which are not covered elsewhere.

2.1.1 Transportation as a system

A system consists of interrelated parts.[1] Urban transportation system is thus a subsystem of the urban system. Its function is to connect the other parts of the system together. The major function of transportation is thus accessibility.[2] This defines the relationship between different parts of the system (land uses) and the land on which they occur.

The study argues that transportation is a system and singles out road transport. The literature dealing with systems approach is thus relevant and gives the study the necessary theoretical backing. However, the literature tends to deal with transportation in general not differentiating between air, rail, road and water transport. There can be significant differences between these even though they are parts of one system. The present study differs with the existing literature by emphasizing road transport.

1. B.J. McLoughlin, Urban and Regional Planning, (London: Pergamon Press, 1969); G. Chadwick, A Systems view of Planning, (Oxford: Pergamon, Press 1972); F. Chapin, Urban Land Use Planning, (London: University of Illinois Press, 1972).

2. J. Black, Urban Transportation Planning, (London: Croom Helm, 1981).

2.1.2 The Role of Transport

The basic function of transportation is to provide accessibility.[3] It provides accessibility or connects activities by enabling the movement of people and goods to activity sites.[4]

The literature under this section will help in defining the role of transportation so as to measure the extent to which the transportation system of Maseru town is effective. The performance or non-performance of the functions in question will tell us how accessible or otherwise the land uses in Maseru town are.

2.1.3 The Role of Transportation in Economic Development

By its function as a connector, transport has that other additional function of facilitating development. Transport facilities offer accessibility to places that could have not been accessible before. By so doing more development occurs as businesses and other activities locate in such a way that they optimize on accessibility to more buyers. There has been evidence that cities grew on nodes where transportation facilities were

3. Black, p. 10

4. G.R. Wells, Comprehensive Transport Planning, (London: Charles Griffin & Company Ltd., 1975); L. Schumer, Elements of Transport, (London: Butterworths, 1968); R.E. Murphy. The American City: An Urban Geography, (New York: McGraw Hill, 1974), p. 219.

developed or merged.[5] Transportation thus facilitates economic development.[6] by attracting growth factors such as trade.

The literature in this section will be useful to the study by showing the importance of transportation in society and the role it can play to change peviously undedeveloped areas into busy areas of trade and related activities.

The literature fails in one respect though. It assumes that transportation always comes prior to town development. In the case of Maseru what is observed is that the town itself grew without consideration for development of transportation facilities. The inacessibility of some areas is largely due to this phenomenon. Buildings came first and eventually no space was left for transportation routes. This ommission from the literature is going to be covered in this study. This condition is as important as the one described above.

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5. Murphy, P. 220; B.J.L. Berry, Geography of Market Centres and Retail Distribution, (New Jersey: Prentice Hall, 1967).

6. G.W. Wilson, "Toward a Theory of Transport Development," (Washington D.C.: Brookings Institution); L. Rodwin, Planning Urban Growth and Regional Development, (Cambridge: M & T Press, 1969.

2.1.4 Transport and Urban Form

Transportation is an important part of the urban system. The nature of transportation affects the way in which cities are build. Throughout the process of the evolution of cities the transportation function contributed significantly to the form of cities.[7] Indeed cities consist of transport and buildings. Most of the large cities of the world owe their form and lifestyle of the people to their transportation. For instance Los Angeles owes its life style to its freeways, just as London does to its nineteenth century railways.[8]

These are useful contributions which show cities and transport are inextricably bound together. This strengthens the problem that cities cannot do without transport. This also emphasizes the interrelatedness of the transportation aspect to other parts of the urban system. In fact transport is responsible for the way cities look, the way they are laid out and organized and the way they function.

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7. P. Abercrombie, Town and Country Planning, (London: Cambridge Press, 1959); L. Mumford, The City in History, (Harmondsworth: Penguin Books Ltd., 1961).

8. J.M. Thomson, Great Cities and their traffic (London: Victor Gollancz Ltd., 1977).

However, the literature fails to show how transport would affect a city that has grown without any consideration for transport development. That is, a city which grew and its transport system seems to have come later than the other buildings. In this study an argument is held that the transportation system of Maseru town has been shaped by the nature of the buildings rather than the other way round. This resulted in squeezing roads in small left over spaces with little potential for road widening as is the case with Kingsway. Also this resulted in some areas, mostly in residential areas, being inacessible as buildings affect transport. This is the dimension which resulted in the problem found in Maseru and the study will elucidate this aspect which the literature does not deal with.

2.1.5 Transportation and Land Use

There is a very strong relationship between transportation and land use. Both of them individually cannot cause traffic. Traffic is a joint consequence of land - use potential and transport capability.[9] Transportation land uses are the major land uses in the

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9. W.R. Blunden, The Land-use/Transport System, (Oxford: Pergamon Press, 1971); D.N.M. Starkie, Transportation Planning, Policy and Analysis, (Oxford: Pergamon, 1976).

urban space, exceeded only by residential land uses.[10] The land use transport connection was first developed by R. Mitchell and C. Rapkin who argued that different types of land use generate different and variable traffic flows.[11] This view however is countered by Wingo, Wendt, Bruton and Hensher who argue that movement demands are directly related to the distribution and intensity of land uses.[12]

The latters' views are held in this study as it takes the view that transport and land uses interdepend. It is the ignorance of this fact which led to the disorganization in Maseru town. The literature is thus useful in guiding the argument advanced here.

The study thus differs with the view that transport exists only to serve other land uses. So any lirature holding this view is regarded insufficient. The feature of interdependence of land use and transport will be contextualized with regard to Maseru town, thus filling a gap which had not been filled by any literature.

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10. E.K. Morlok, Introduction to transportation Engineering and Planning, (Tokyo: McGraw Hill Kogakusha, 1978); Murphy, p. 222.

11. Blunden, loc. cit.

12. L. Wingo, Transportation and Urban Land, (Washington, D.C.: Resources for the Future, 19617; P.F. Wendt, Forecasting Transportation Impacts upon Land Use, (Leiden: MNSSD, 1976); M.Bruton, Introduction to Transportation Planning, (London: Hutchinson & Co. Ltd., 1975); D. Hensher, Urban Transport Economics, (London: Cambridge University Press, 1977).

2.1.6 The Journey to Work

The journey to work is a characteristic of the urban areas brought about by the locational separation between the place of work and the residential areas.

This characteristic presents a problem for the modern city as transport facilities have to be provided for it. A further problem results from the peaking of traffic in the mornings and evenings in most cases resulting in congestion. Thus the problem of the modern city largely results from the separation of the dwelling place and the workplace.[13] Indeed the journey to work accounts for a large part of the urban transportation problem.[14] This is because cities are structured in such a way that workplaces are concentrated in one area thus resulting in congestion as people move in one direction all at the the same time.[15]

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13. Dickinson, op. cit., p. 325; P.O'Farrell and J. Markham, The Journey to Work, (Oxford: Pergamon, 1975).

14. I. Manning, The Journey to Work, (Sydney: George Allen & Unwin, 1978); F.R. Wilson, Journey to Work - Modal Split, (London: Macharen & Sons Ltd., 1967).

15. P. Hovell, et. al. The Management of Urban Public Transport, (Westmead: Saxon House, 1975).

The literature in this section makes one of the hypothesis of this study stronger. It is hypothesized that in Maseru the journey to work characteristic contributes significantly to the total number of journeys made in the urban space.

However, the literature does not give the extent of this problem. This dimension will be included with regard to Maseru.

2.1.7. Public Transport

The purpose of urban transport is to provide convenient and effective means for personal movement which forms a major part of economic and social life in an urban area.

As towns grew and walking distances became longer, it was no longer possible to traverse towns on foot.[16] This led to the emergence of public transport services. These services are the most economical and the most efficient as they move large numbers of people all at the same time.[17] Public transport thus has the potential

16. R. Cresswell, (ed). Urban Planning and Public Transport, (Lancaster: Construction Press, 1979).

17. E. Davies, Roads and their Traffic, (London: Blackie & Son Ltd., 1960): World Bank, Urbanization: Sector Working Paper, (Washington: World Bank, 1972).

of reducing congestion.[18]

Since not all people are capable of owning private cars and public transport forms the major facility in any given city even where car ownership is high, the literature provides the essential backing for the place of public transport in society. In Maseru car ownership rates are low thus emphasizing the importance of public transport facilities.

The literature however does not give solution to the problem of seasonality of high demand for transportation. The problem of extra-ordinary demand placed on Maseru's public transport system over weekends needs attention. The literature does not deal with such abnormal situations.

2.2 POLICY REVIEWS

Policies provide guidelines to action. Cities need policies which guide their growth as the pace of urbanization gains momentum. With increasing urbanization problems such as high crime rates, pollution, traffic congestion, conflicts over land uses and others increase. Carefully designed policies

18. Hovell, op. cit. p. 4.

would reduce to a large extent some of these problems.

There are inequalities in urban systems. Such inequalities could also be controlled by introducing policies that guide urban development and the use to which land is put. These would go a long in making the towns and cities more attractive and comfortable to live in.

Countries which lack such policies run the risk of losing their beautiful cities to uncontrolled development which can be quite expensive to root out later on.

2.2.1 The Policy of Urbanization in Lesotho

The problem with urbanization in Lesotho is that it is not guided by policy. This has led to towns growing in an uncontrolled manner. This applies to all urban areas of Lesotho including Maseru the capital. So these areas do not have any guidelines which guide them in the path of development.

An attempt has been made to establish urban governments with a view to addressing this problem. This effort is contained in the Urban Government Act of 1983. The Act makes provision for the establishment

and regulation of urban local authorities.[19] When such an authority has been established it would have councillors and committees which perform various functions. Under its jurisdiction would be the power to make bye-laws. Such provisions with appropriate bodies would enable formulation of policies that would guide the process of urban development. Since its enactment, however the Act has only succeeded in establishing Town offices in various places, appointed town clerks and other supportive staff. However, the performance has not been good and not much success has been gained in the making of policy. In addition has the councillors have not been elected. Maseru was about to enter into this process late in 1987. The point here is that the policy could not be made or even worked out without the necessary institutional backing. The process of policy-making has not yet started. This however has not witheld the progress of the urbanization trend. So while we wait for policy, growth is still proceeding and what may have been easy to solve will not be so as the problem compounds itself.

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19. Government of Lesotho, The Urban Government Act No. 3 of 1983, (Maseru: Government Printer, 1983), p. 11.

The formulation of an urban policy needs contributions from various departments. The most important of these is the Physical Planning Department for without inputs from it, guiding physical development will be very difficult. The absence of the Physical Planning component in Maseru has led to problems. The Physical Planning Department was just established in early 1986.

2.2.2 Urban Transport Policy

The place of urban transport policy is such that it achieves harmonious relationships in the process of town growth. Absence of such a policy means that harmony cannot be attained even where desired. The transport policy should work hand in hand with urban development policy to yield the kind of cities and towns that are desired. The policy should aim at achieving mobility as optimally as possible while at the same time achieving harmony with the rest of the urban system. The disorganization in Maseru is largely attributable to lack of transport policy. What exists are general guidelines on operation of public transport vehicles embodied in the Road Transport Act of 1981. Besides this Act, which applies to Lesotho in general, there is no other statement of policy on transport specific to Maseru town.

It is the policy of Lesotho Government through the Ministry of Transport and Communications to encourage a commercially viable passenger transport system in which the private sector should play the predominant role. This policy objective cannot be said to have been carried out in Maseru or elsewhere. Although the private sector accounts for a large proportion of the public transport ownership. Government Departments have introduced public transport.vehicles in Maseru town. In addition, Lesotho National Bus Services were introduced on inter-urban routes and given monoply of operations on such routes. So without a policy specific to Maseru it becomes very difficult to see how these activities match the policy objective.

There is an intention to rationalize passenger transport such that long routes are reserved for buses and mini-buses while small capacity vehicles are to operate on urban roads. This objective is difficult to achieve as no operating subsidy is given to the bus operators nor do they get central government assistance to purchase buses. This has not been implemented as pirate taxis and buses still operate and the small vehicles still ply the long distances. The policy, if implemented, would restrict the supply of public transport vehicles. In addition the Government Departments which operate public transport services in Maseru own buses rather than the small-capacity vehicles.

In the freight transportation sector, encouragement of the private sector does not augur well. Due to the difficult terrain and consequent reluctance of operators to operate on routes in the mountains, the government has had to fill this gap with the establishment of the Lesotho Freight Services Corporation.

With the realization of unfair relationship to South African transporters the policy has been geared towards facilitating access of Lesotho haulage operators into cross border freight traffic and to facilitate access of Lesotho Bus operators into the transportation of migrant workers. These objectives could be met only if the Lesotho government can enforce its control on the issuing of freight haulage permits so that only specialized vehicles from South Africa are given permits to operate in Lesotho. In addition there would have to be a change in the existing transport legislation between Lesotho and South Africa. This Legislation provides that only South African Railways trucks and their subcontractors are allowed to operate within 40 kms.s.radius[20] from the railheads. In effect, this means that South African operators can go far into the interior of Lesotho while on the other side Lesotho operators cannot do the same in South Africa.

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20. Ministry of Transport and Communications, p. 22.

These policy objectives are ladden with problems and in real operation present difficulties for the transportation system. These problems become worse when combined with the restrictiveness of the Road Transport Act of 1981 in conditions for issuing of permits.

The Act requires that a permit be acquired in order to operate a vehicle on the roads. The permits are of varying types as follows: A - permit is required for a public goods carrier, B - permit for private carrier, C - permit for a public services vehicle (e.g. buses and taxis) and a D - permit for a taxi and an E - permit for vehicle renting. For public transport services the Road Transport Board which was established under the Act has to set fares, specify routes, specify stops and schedules. Most of these functions are not performed such that the only functions that the Board still carries out are issuing of permits and specifying of routes. The rest are not adhered to and taxis stop on demand regardless of whether that is a specified stop or not.

The policy is not only deficient in its provisions but is so restrictive that some of the conditions specified are not carried out and has in most cases actually restricted the supply of public transport vehicles. For example, the permit conditions are supposed to be supervised by Transport Controller and a team of inspectors who are check the

roadworthiness of buses and taxis. At the time of the survey there was no transport controller in post and no inspectors to enforce the condition of the permits. Furthermore , the preponderance of "pirate" buses and taxis which are often operated by legitimate permit holders may be an indication of the unsatisfied demand created by the restrictiveness on the permits side.

In summary, there is no defined public transport policy to cater for the high demand which accompanies town growth. Even if that policy were to be, without implementation it would not be very useful. Judging by the staffing and general conditions of operations of the agencies involved, implementation capability is lacking. To add to this no specific authority is available to deal with transport of Maseru town. Various agencies are involved with varying dimensions of the transportation question. There is the Maseru Town Office through the Town Engineer which undertakes construction, upgrading and maintenance of roads other than the gazetted ones. These roads are generally poorly maintained and no traffic planning is undertaken. It is this office which introduced the disc parking zones along Kingsway. That parking system did not work well either due to lack of personnel and weakness of the law enforcement structure. The Roads Branch of the Ministry of Works is responsible for the construction and maintenance of gazetted roads

throughout the country. All major roads within the boundaries of Maseru town are gazetted roads and thus are the responsibility of the Roads Branch. These are generally well-kept except that the signals often have problems and at times fail to respond to changes in the flows of traffic. This often necessitates the stationing of a traffic police officer at signals and in most cases operates in conflict to the traffic signal thus predisposing road users to danger of accidents depending on where one is looking (at the traffic light or at the person who may sometimes be difficult to see when lots of pedestrians are crossing the road). The Roads Branch does not carry out formal transport planning in the urban area and has no traffic policy for Maseru.

The traffic count section of the Ministry of Works carries out traffic counts on gazetted roads, mainly on inter urban roads and only occassionally in Maseru town. The Ministry of Transport and Communications deals mainly with driver, vehicle and public transport licensing. There is a problem of effective implementation as mentioned before. The traffic Police are responsible for the enforcement of traffic regulations. They generally lack sufficient training and equipment to enable them to do this task effectively. The Physical Planning Department although trying to consider the transport

policy of Maseru, was started as recently as 1986 which means that it has not yet found its feet. In addition, no transport surveys have been undertaken which makes it difficult to draw up sufficient policy guidelines.

So the transport policy of Maseru town has not yet been formulated and the institutions which would support such a policy are not sufficiently organized to do an effective job.

A policy without implementation can be of very limited use. In order for implementation to take place there is need for a well-established and well-coordinated institutional framework to undertake the necessary tasks. In Maseru there is little, if any, transport policy. Even if it were to be formulated there would be a problem of implementation as no specific body is responsible for all aspects of transportation. For effective policy measures there is thus a need to coordinate the various parts involved with various aspects of transportation. There is also need to centralize the responsibilities under one body which will deal with transportation issues of Maseru town specifically.

CHAPTER THREE

HISTORICAL, TRANSPORT AND LAND USE PERSPECTIVES

3.1 Brief history of the country:

Lesotho is an enclave within South Africa. The result is that problems experienced in transportation, not only arise from the internal workings of the system but also are contributed by the land-locked status.

This is how the country became to stand as it now. Before the white settlers came to the Cape Colony (South Africa) the Basotho as a nation were already in existence in what is now the Transvaal far beyond the present borders. There were by then scattered chiefdoms of cattle - owning people speaking dialects of Sesotho. Their communities were usually large and stable, often larger than those of the white settlers. The stability however was disrupted in the 1820s by the Lifaqane wars.[1] King Moshoeshoe I seized the opportunity to carve out of the remnants of the wars a nation. Those who were dislocated by the wars were gathered together into a nation. He established his capital on top of Thaba-Bosiu plateau in 1824.[2] The kingdom extended over the present border formed by the Mohokare

1. A. Coates, Basuteland, (London: HMSO, 1966), p. 22.

2. G.W. Strom, Development and Dependence in Lesotho, (Uppsala: SIAS, 1978), p. 32.

river and covered all that is now the Orange Free State..

The white settlers who came to the Cape in 1652 kept on advancing to the interior and were reaching very close to the Western part of the Kingdom. There were a series of strifes between the settlers and the kingdom. King Moshoeshoe I then sought protection from Britain and the kingdom became a British protectorate in 1868. Wars continued and Lesotho eventually lost most of its land to the settlers.

In 1871[3] Britain made Lesotho part of the Cape Colony and wanted Basotho to surrender their arms to the government of the Cape Colony. Basotho resisted this move and asserted their desire to remain a separate colony. Direct rule was reinstated in 1884.[4] In 1910 the Union of South Africa was formed and the settlers wanted to have Lesotho incorporated into the Union. Again this was resisted and Lesotho remained a separate entity although contained within South Africa.

Dependency relations between Lesotho and South Africa were started this way and perpetuated by British interests in the South African mines.

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3. R. Stevens, "High Commission Territories of Southern Africa", Focus 14, 1963.

4. Ibid p. 75.

3.2 Historical Development of Maseru

Historical developmenment of Maseru is viewed in three divisions as follows:

(i) Maseru before 1868

(ii) 1869 - 1966

(iii) 1966 to the present.

3.2.1. Maseru Before 1868

The area of land that is now called Maseru had no significance then. It was just a village like any other in the country then. Even then the present border, namely that formed by the Mohokare river was nonexistent and extended far beyond to the fertile agricultural land to the west of the river.

The place is named after a particular kind of sandstone that is found in the area - Leseru. This kind of rock is characteristic of the sedimentary rocks of which white sandstone is a part.

The present site of Maseru gained significance with the coming of colonialism when the colonial headquarters was moved from Mokema (half - way between Thaba - Bosiu and Morija) to the present location overlooking the Mohokare river.

3.2.2. Maseru between 1869 and 1966

In 1869 Sir Walter Curries' successor Commandant J.H. Bowker[5] changed the colonial headquarter from Mokema to the present position. The new position was strategic both in terms of the colonial administration purposes and in terms of trade.

Subsequent developments in administrative and supporting accessory activities moved to this new place. However, no planning was carried out and no roads were tarmacked or developed. The area was just conveniently located near enough to Ladybrand in South Africa to allow the Resident Commissioner to commute without difficulty.

Despite the lack of commitment on the part of the colonial government to planning and transport development, Maseru became the trading centre. The first store was established in 1869. Following this other stores were established at the present Hobson square and a Frasers Retail shop was opened in 1914. All these developments are located along the present major street of the town the Kingsway. These and other developments, continued but most of them were administrative in nature.

5. Business Focus, Business Focus, 2, No. 2 Maseru: Baffoe and Associates, May/June 1987, p. 3.

3.2.3 Maseru from 1966 to the present

In 1966 the country of Lesotho was granted independence. The boundary of the Maseru urban area however was still ill - defined especially in the surrounding villages. What was developed was too small to extent even to some of the nearest residential areas.

When the country gained independence Maseru was to remain the chief administrative centre. This attracted growing number of service facilities to be located in this town. In addition, with a view to increasing the prospects for job creation, the government established Lesotho National Development Corporation (LNDC) in 1967 and it was headquartered in Maseru. The corporation is responsible for promotion of industrial development. In 1968 Basotho Enterprises Development Corporation (BEDCO) was formed as a subsidiary of the LNDC. The two corporations together with the public service sector have attracted many job seekers and thus served to increase the pace of urbanization in the town.

With plans in the pipeline to diversify activities of the corporations and their subsidiaries, substantial growth can be expected. The rapid expansion of industrial activity will require more serviced sites and accessory services as well as personnel.

Thus Maseru will keep on growing and expanding. These growth trends have implications for the transport system. As traffic depends on the land uses and land uses increase with growth, the transportation system will need to be able to respond to the trend.

Over the years since 1966, Maseru has seen very rapid developments mainly in terms of population that reside in the urban areas. The structure has also changed significantly from what it used to be in the colonial days and shortly after independence. Industrial areas have been created along Mohokare river both at the industrial areas as well as at Ha Thetsane.

However, due to lack of commitment to urban planning policy, land use policy and urban transportation policy, the structure lacks aesthetic quality that is part and parcel of healthy town development. As the growth trend continues this will pose a serious limitations in the future.

3.3 The Development of the transport system

3.3.1 The road system

There was no commitment on the part of the British to undertake road development for Maseru town or for that matter any other part of the country. The

aim was to run the High Commission territories of Botswana, Lesotho and Swaziland as inexpensively as possible but extracting tax from the citizens and manipulating them to provide cheap labour for South African mines. Thus Lesotho including Maseru was characterized by untarmacked roads.

During the reign of chieftainess 'Mantsebo (Regent 1939-40)[6] the then King of England visited Lesotho. At that time the nearest airport was in Johannesburg, South Africa. To get to Lesotho one had to go by road which was untarred. Thus a quick move was made to prepare the road from Mohokare to the only traffic circle in Maseru. So the stretch of the road from the border was prepared for the King to travel on and was named Kingsway and is called thus even at present. This road at present cuts through the CBD and ends at the border. The street is reminiscent of the idea of the primary straight street of the Baroque era.[7] The terminal features of this road are the control post at the border and the traffic circle appropriately ornamented on the other side. The Catholic Cathedral of Queen of Victory built just across from the circle complements the monumental recompense of the road as it were. Although not planned as part of town or transport development, this appears to have a relationship to planned situations.

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6. Coates, p. 93.
7. Abercrombie, p. 57.

The underlying factor that runs through all the process described above is the lack of commitment to invest in infrastructure by the British. As such infrastructural development was generally weak at the time of independence. This weakness was not only visible in the major town but also premeated the whole of the country including other centres. For most of the mountainous areas no roads existed and communications structure was very inefficient. In these areas the most common means of transport was by animals. This also provided a useful link with the major lowlands centres.

3.3.2 Road Transport

At the time of independence the Government gave preference to rural development. This involved constructing roads in order to make the previously inaccessible areas of the country accessible. Emphasis was on labour intensive projects. Through this many rural roads were built.

In the urban areas roads were build and extended under the Ministry of Works. This Ministry was responsible for both intra-urban and inter-urban roads. Due to shortages of manpower and finance however emphasis tended to be more on interurban roads. This led to a situation whereby the road connecting Maseru border

post passing through the town centre was improved. Various other roads were upgraded both within and outside Maseru town. However, many of the roads into the residential areas were not adequately taken care of. This has led to inaccessibility of some of the residential areas, thus making it necessary for people to travel long distances to the public transport routes. The problem came with assigning the gazetted routes to the Ministry of Works. The Ministry takes charge of all gazetted roads throughout the country. Invariably the result is the tendency to emphasize roads that connect important centres within the country rather than the roads within urban centres.

It is the policy of government to allocate buses to inter-urban transport and small passenger vehicles on intra-urban routes. In line with this policy Lesotho Bus Corporation was formed in 1973 with a fleet of 43 buses.[8] The aim was to serve interior parts of the country and not the urban areas. As the company started its operations, it became necessary to reorganize it as a corporation to ensure that it runs as a commercial venture but at the same time providing the public with reliable transport at reasonable prices.

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8. Ministry of Transport and Communication, p. 5.

Due to high running costs which result mainly from the terrain the vehicles encountered the corporation has had to be grounded. At the time of the survey only 10 buses remained operational. The intention is to finally pull government support out of public transport and make way for private operators. In any case, private operators account for a large proportion of public transport operations.

In the area of freight business the Government enacted the Lesotho Freight services corporation during the second five - year plan period, 1975/76 - 1979/80. The corporation has physical infrastructure consisting of terminal buildings, workshops, offices, mainly in Maseru and Quthing . It also owns a warehouse in Qacha's Nek. The corporation's activities were mainly directed to the mountain areas of Mokhotlong, Thaba - Tseka and Qacha's Nek. This was with the aim of complementing private operators who found the areas too expensive to service due to rough terrain (Map 2).

3.3.3 Air Transport

The Lesotho Airways Corporation was established by Order No. 50 of 1970.[9] The aim was to provide air transport services, both scheduled and non-scheduled, domestic and international.

9 . Ministry of Transport and Communications, p. 21.

Prior to 1979 the corporation's activities were directed mainly towards the mountainous areas of the country. None or few international connections were given priority. However the year 1979 was to be a turning point in the corporations activities as figures 1 and 2 show. Significant rises were experienced in both domestic and international passenger and goods traffic.

Air transport has a significant role to play in socio-economic development of a country. This is more so in the case of Lesotho which is land locked. In addition, because of the country's topography air transport becomes the quickest and at times the only way of linking the capital, Maseru with other administrative, commercial and rural centres in the country. (Map 2). So apart from its role in economic development, the Lesotho Airways Corporation also has ramifications for political independence as it is the only available means of connecting with international destinations. These include Zimbabwe, Swaziland, Mozambique and Botswana. Plans are underway to expand services to other Eastern, Central and Western African countries. At present the Corporation has acquired a Boeing 707 aircraft which was expected to be operational in March 1988.

Both international and domestic flights depart from Mosheshoe I International Airport located some

20 km. south of Maseru town. The corporation operates some 52 flights a week to 14 domestic destinations[10] in the more mountainous regions. Such destinations include Sehonghong, Semonkong, Nohana, Nkau, Qachasnek, Matsaile, Mokhotlong and others (Map 2).

In order to make it possible to gain access to the air transport service, the road is put to use. Because of the placement of the New International Airport at the present site, it became necessary therefore to improve the roads that lead to the airport. Thus the Maseru - Mafeteng road (renamed Main South 1) was upgraded and made into a dual carriageway between the traffic circle and the junction of Lakeside Road. The road caters both for (passing) through traffic and the daily traffic of Maseru town. Thus this could be seen as an improvement in easing the congestion that used to occur along the road. However, at the same time this upgrading was not done alongside with the improvement of Kingsway which should have been its part. This results in problems of congestion at the traffic circle as we will discuss in the next chapter.

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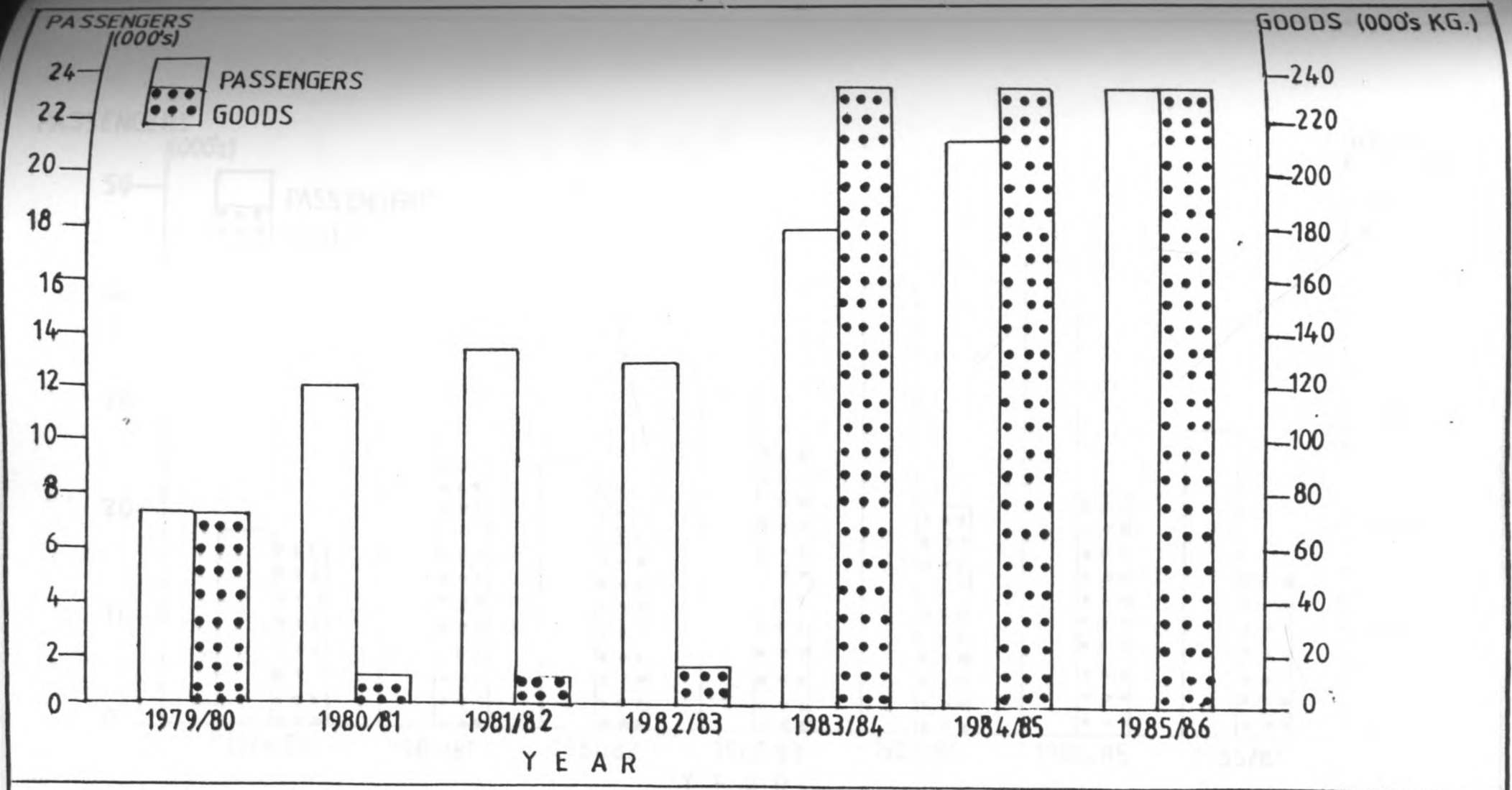
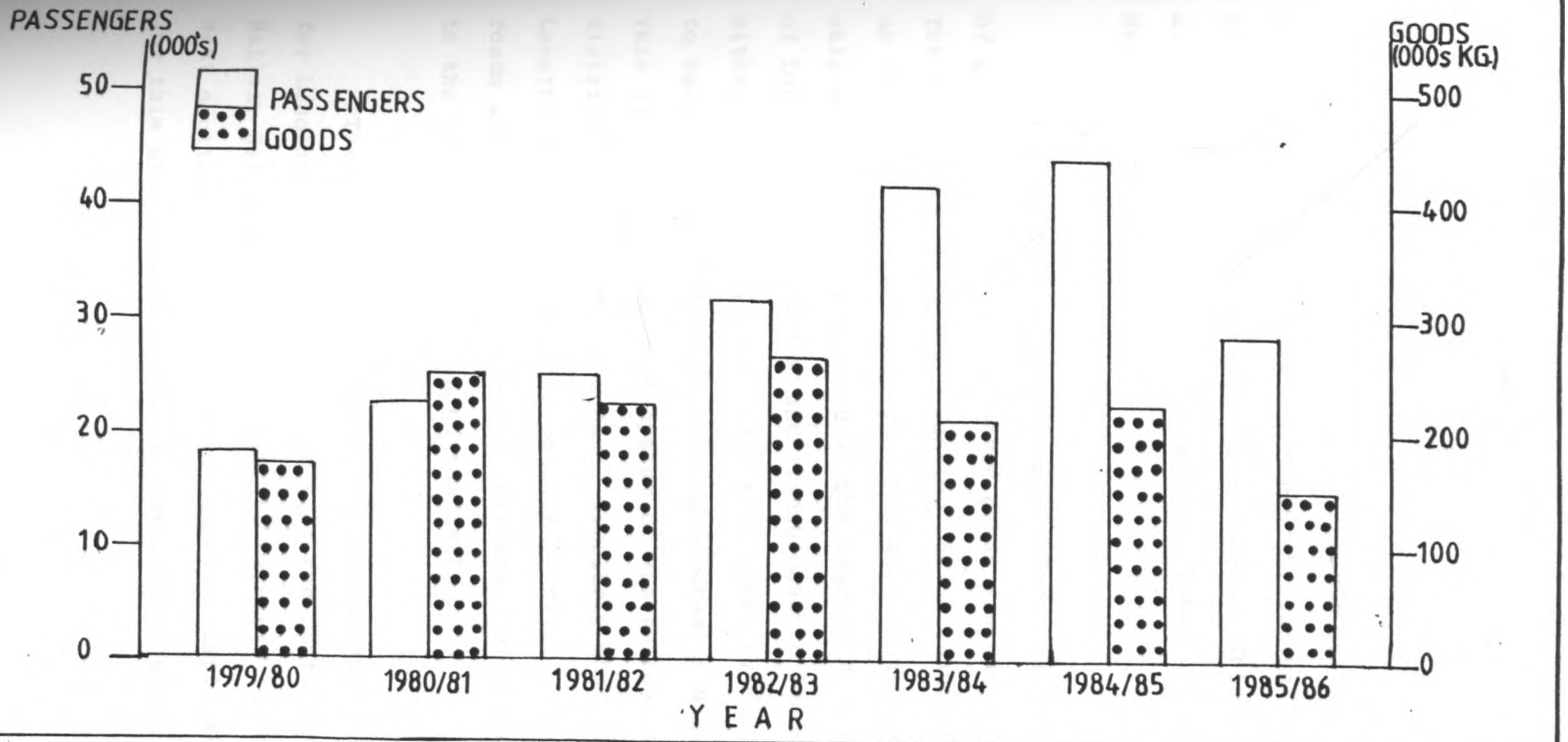
10. Business Focus, pp. 11 - 13.



AIR TRANSPORT : PASSENGER AND GOODS TRENDS ON INTERNATIONAL FLIGHTS

FIG NO. 1



AIR TRANSPORT : PASSENGER AND GOODS TRENDS ON DOMESTIC FLIGHTS

FIG NO. 2

3.3.4 Rail Transport

There is no railway transportation system within Lesotho. However, there is a South African Railways rail head that runs 2 kms. within Maseru. This head although too short has very important implications for Maseru town (Map 2).

The railhead functions mainly for transportation of goods. It is the point where ocean freight destined for Lesotho is offloaded. Lesotho has no coastline as it is a landlocked country. All goods that come by ship are therefore offloaded at the nearest Port City of Durban in South Africa and transhipped to Lesotho either by road or by rail. All that comes by rail has to again be transferred to the road system at Maseru. This affects the transport system of Maseru town as a distributor of all these goods. Similarly most of Lesotho's exports leave the country by rail. The roads are also involved as the only means of connecting to the terminal facilities of the rail.

This relationship has serious cost implications for Lesotho. This is as a result of the South African Railway Rating policy which will be examined in the next section. The relationship thus has implications for this study and will be analysed accordingly.

3.4 The South African Railway Rating Policy and Impact on Lesotho's Transport

Basically all goods enter and leave Lesotho through South Africa. Lesotho's local market is very limited and has to depend heavily on South African transportation facilities for both imports and exports. If there was room for flexibility, Lesotho could freely choose which transportation mode to use and thus be able to reduce costs. However, permission to use alternative modes of transport is often refused on the grounds that the South African Railways has to be protected. This implies a price taking role on the part of Lesotho. It is this status which makes certain industries, such as assembly industries, to find Lesotho unattractive for investment as it would be very difficult to compete successfully with South African ones. The main factor underlying this is high transportation costs. In the final analysis the high transport costs lower returns on Lesotho's exports making it difficult to spare enough to invest in national projects of which transport improvements form a part.

Table 2 illustrates the problem over a two year period ever so clearly and shows how crucial some of the imports are.

TABLE 2: Value of imports as against exports by commodity

Item	1981		1982	
	Imports	Exports	Imports	Exports
Food & Live Animals	91,167	5,597	120,795	3,155
Dairy Products & Eggs	7,694	4	8,982	36
Cereals	26,037	1,950	39,611	1,317
Vegetables	8,392	439	10,639	604
Sugar & Sugar Products	11,402	3	14,090	15
Animal Feed	1,732	859	2,136	400
Totals	146,424	8,852	196,253	5,527

(Value in 000 Maluti)

Source: Adapted from Bureau of Statistics.

The high annual losses or imports value can be attributed to high transport costs.

In economics two factors influence any rating of any transport organization. These are the demand and supply factors. According to this principle the value of service rendered to the customer will determine the upper limit of the rate. In competitive situations the charges for the service will not exceed the higher limit as this could influence demand to other operations.

The case of South African Railways is different because they are the sole operators which means that the demand cannot to shift to other operators. Even if charges exceed the upper limit, the protection policy and being the sole operator will ensure that demand does not shift.

Supply factors or the costs incurred in the provision of the service will determine the lower limit of the rate. However, for transportation purposes especially railways, capital outlay requirements are very high.[11] So in most cases all costs related to the laying of lines and the carrying capacity in excess of the present requirements are not used in determining supply. Because of this, Railway transport needs to be protected and supported by other sectors. Thus the South African Railways Rating Policy is governed by legislations - the Republic of South African Constitution Act No. 32 of 1961 and the Railways and Harbours Control and Management Act No. 70 of 1957. These sets of Acts specify that the administration of the railways shall be on

> ... business principles in accord with the basic principles of rating theory but with due regard to the development of the country as a whole when

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11. D. Hensher, Urban Transport Economics (London: Cambridge University Press, 1977), p. 36.

determining railway policy in general and rating policy in particular.[12]

When applied, this policy has facilitated cross - subsidisation between different sectors of the South African economy. This however benefits South Africa only. It does not benefit any other country including Lesotho. It is a significant point that of all commodity imports by rail between 9.5% and 15.3%[13] of costs go to pay for rail transport. Looked at closely these have implications for transportation within Lesotho itself. The brunt of these problems tends to be borne by Maseru town given its location with the railhead, national status and the fact that it gets no revenue from the railway .

The South African policy hinges on protecting the railway. That is, by manipulating the demand and supply factors it ensures that the railway is used to the maximum by customers from neighbouring countries. One way of doing this is by setting higher road transport prices. So although the railway transport takes so much money of the total value of imports which is about 2% of Gross National Expenditure for Lesotho,[13]

12. S.G. Hoohlo Two Aspects of Transportation Arrangements in Lesotho, (Roma: National University of Lesotho, 1978), pp. 16-17.

13. Ibid.

it remains the cheapest way of transport since the road transport costs would be double the price of what is paid on the railway. The workings of the situation are made in such a way that Lesotho does not have much choice and ensures that the railway is used frequently enough to raise revenue and profits.

In summary, the South African Railway provides an essential service by transporting crucial commodities to and from Lesotho. The centre of attraction for the activity in Maseru where the railroad gives over to the road system. However, the service has very high transport costs which Lesotho has to shoulder. This has a net effect of reducing the value of exports and making imports very expensive. This means that very little money can actually be circulated within Lesotho making it impossible to undertake any worthwhile investments. This is more so in the case of transportation facilities because South African transporters can also afford to compete with the local suppliers.

So financially, Lesotho is badly placed against the industrially developed South African economy mainly due to the railway which links it to Maseru.

Maseru thus has a significant role in this connection especially when considering the workings of the South African Railways Rating Policy.

Against this background of lack of commitment to road development, the costly transportation facilities of South Africa, the terrain and the geopolitical situation the problem still remains as to how to improve transportation facilities especially within Maseru. Transportation improvement for Maseru is justifiable on population, national status, juxtaposition to South Africa, growing industrialization since independence and on many other grounds. The issue at stake is whether to address transportation problems exclusively or take them as part and parcel of urban development. An approach that takes note of the place of transportation in urban development is opted for. This view is even held by other writers such as Thomson who says that "transport does not just serve the city: it is also an important part of the city ... Cities are made up essentially of buildings and transport.[14]

It is thus a mistake to take the view that urban transport exists to enable people to move between various buildings. This view has to a large extent been

14. Thomson, p. 16.

responsible for the uncontrolled growth of cities. This is so because buildings have to come up first and then be connected later. This is the kind of predicament that Maseru town is in now. Some places are virtually inacessible due to overbuilding, no space is left for road development. This causes problems as accessibility is the main function of transportation. Without connections or communications, buildings in towns whether residential houses or offices, make no sense. Without accessibility considerations, buildings are largely dysfunctional.

With this view in mind, the land uses in the town will be reviewed.

3.4.1 Land Use Pattern in Maseru Town

Land use refers to spatial accommodation of activities. Activities take place on land and thus land or space have a special place in urban areas where growth is usually very rapid. Urban Land uses increase in response to high population and a large number of activities that characterize the urban areas. Transportation thus forms a major part of urban land uses as it gives information on the movements of people

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15. Thomson, p. 16

and goods. Transportation thus forms a major part of urban land uses as it gives information on the movements of people and goods. Transportation thus has a role in urban planning.

It is important therefore that in any urban area the following land use activities be identified. These include residential, industrial, educational, commercial, recreational, public purpose, public utility and transportation land uses.

The pattern of land uses relates to the way transportation routes are organized. Thus those land uses which need to be locationally separate connect to each other through the transportaiton system.

Maseru town, though small is not an exception to this rule. The need to separate incompatible activities is there although the erratic placement of some of the activities has resulted in almost insurmountable problems. These become more significant given the role of transportation. So a point is made by the nature of these problems that transportation cannot be marginalised if balanced urban growth is to be attained Like buildings, transportation routes are physical structures which take place on land and therefore have to be provided for. Otherwise chaos prevails and one

problem leads to another until the whole urban system is confounded.

Maseru town covers an area of 136 km.^{2} This area is made up of Maseru west, Maseru Central, Sea Point, Mashoeshoe II, Ha Thetsane, Qoaling, Ha Thamoe, Ha Tsiu, Motimposo, Ha Mabote, Majoe-a-litsoene, Borokhoaneng, Lithoteng, Lithabeneng and Ha Abia. These areas roughly correspond to residential areas with pockets of commercial, industrial and other land uses adjoining them. This makes it clear that residential land uses are the most predominant kinds of land uses in urban areas. This fact is also held by L. Wingo who argues that "the largest use of urban land is for residential purposes which is about 40% of total developed land and 80% of land area under private use."[16] In fact all other land uses are defined in relation to the residential ones. Thus concepts like journey - to work come into being.

Just like in any urban area, in Maseru town are to be found residential, commercial, industrial, public purposes, transportation, public utility and other uses of land. (Map 4). Within the total 136 km.^{2} of land area covering Maseru town, land uses are divided thus with the computed areas : - Table 3.

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16. L. Wingo, Transportation and Urban Land, (Washington D.C. : Resources for the Future, 1961), p. 71.

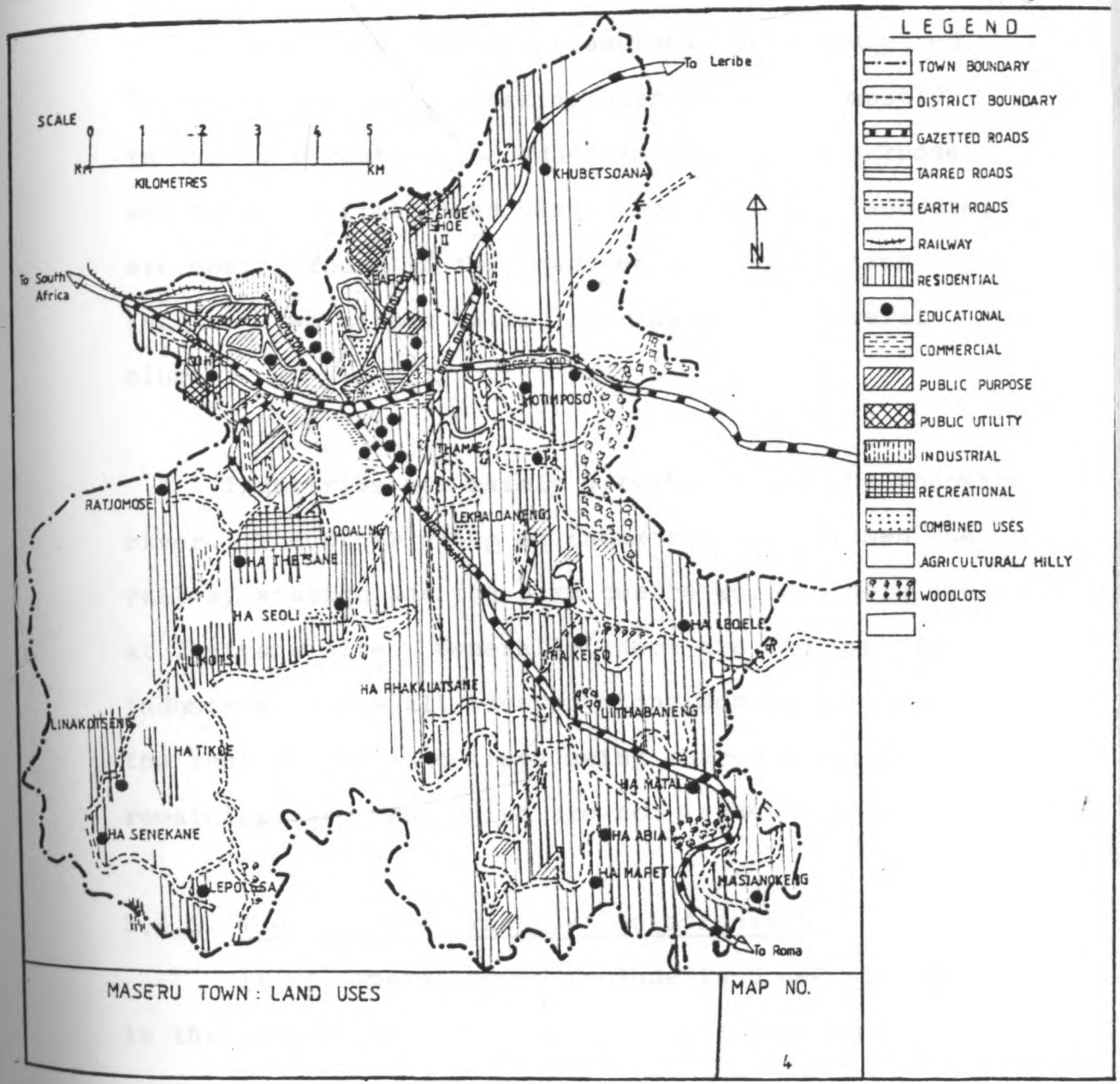
TABLE 3: Land uses within Maseru town

Type of use	Area (Km^2)	% of total
Residential	104.34	76.72%
Commercial	4.1	3%
Educational	6.8	5%
Industrial	4.6	3.38%
Recreational	3.54	2.6%
Public purpose	2.45	1.8%
Public utility	4.76	3.5%
Combination	9.52	7%

(Note: Do not add upto 100% because of overlaps).

These figures are only rough approximations as there was no land use Map from which reasonable estimates could be made. Also there were no clear boundaries between land uses making it difficult to check the accuracy of the computations.

Land uses without transportation cannot be connected and are thus limited in function. Connectivity encourages more activity as interchange from other areas exists. However, as mentioned elsewhere, in Maseru accessibility is the greatest problem of some residential areas. This makes such areas remote from the town even though they are part of the town and only


SCALE
0 1 2 3 4 5
KM
KILOMETRES
KM
To Leribe
To South Africa
KHUBETSOANA
SHOE SHOE II
N
MOTIMPOSO
THAMAE
RATJOMOSE
QOALING
LEKHALOANENG
HA THETSANE
HA SEOLI
HA LEOLE
HA KEISO
HA PHAKALATSANE
LIKOMSI
LINAKOTSENG
HA TIKOE
UITHAIBANENG
HA MATAE
HA SENEKANE
HA ABIA
HA MAFET
MASIANOKENG
LEPOLESA
To Roma
LEGEND
TOWN BOUNDARY
DISTRICT BOUNDARY
GAZETTED ROADS
TARRED ROADS
EARTH ROADS
RAILWAY
RESIDENTIAL
EDUCATIONAL
COMMERCIAL
PUBLIC PURPOSE
PUBLIC UTILITY
INDUSTRIAL
RECREATIONAL
COMBINED USES
AGRICULTURAL/ HILLY
WOODLOTS
MASERU TOWN : LAND USES
MAP NO.
4

a short distance away.

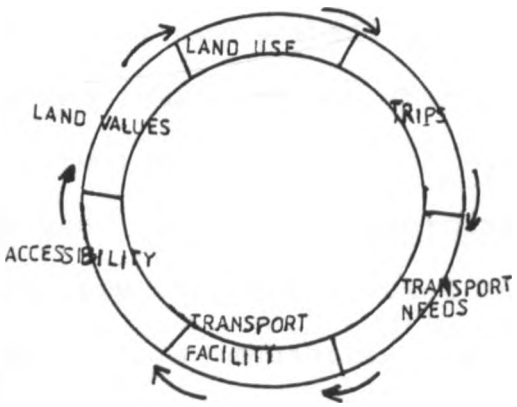
Other land uses are reasonably well-connected. These include the commercial ones which are mostly in the town centre, the educational, public purpose and public utility land uses. Recreational land uses are mostly found in the town centre. Facilities include two cinema halls, four parks and several clubs.

Industries are mainly situated along the Mohokare river. The other group of industries is between the railway station and the town centre while others are at Thetsane site. Generally there are two important industrial sites all located along Mohokare river, the rest of the land areas being shared among the remaining land uses which are not industrial in nature.

3.4.2 The Land-use Transport Relationship

It is imperative to include land use planning in the attempt to solve the transport problem of Maseru town. As pointed out earlier on transport and land use activities interdepend. Whatever the land uses there are they generate traffic. The nature and amount of traffic generated point to the kind of transport facilities required, that is whether they are goods hauliers, public transport vehicles, bicycles or others.

The quality or degree of accessibility of any land use depends upon the ability of transportation facilities to respond adequately to the demands made upon it. Thus the facilities here include both channels and vehicles using them. The accessibility function makes some landuses more valued than others. The inaccessible areas tend to lose their value. In turn the value placed on certain functions of the land combined with their accessibility influence the use to which the land is put. This process goes on in a cycle. In this way traffic does not exist in its own right but as "a medium of activity."[17] It is the joint consequence of land-use potential and transport capability.[18] In other words it is in traffic that transport and land uses find their expression. This cycle of activity is summarized by C.A. O'Flaherty in a diagrammatic form as follows:



The Land Use Transport Cycle [19]

17. Blunden, p. 1
18. Ibid
19. C.A. O'Flaherty, Highways and Traffic Vol. 1 (London: Edward Arnold, 1983 report), p. 63.

There are land uses in Maseru, even though there is no policy on land use. These land uses need to connect to each other and thus generate traffic. The traffic thus generated places certain requirements on transport facilities. Thus we find that residential zones, workplaces, schools, churches and the like are generators of traffic. This places requirements on transport facilities. Thus here the use of public transport is called for and the difficulties associated with it define how capable it is in responding to demand. Some residential areas have been described as inaccessible in this study because of the poor road conditions traversing them making them unattractive to public transport operators. This makes it difficult for people to connect from one place to another. Poor accessibility has led to some areas being less valued than others. Thus most of the areas are used for residential purposes even if they could provide good sites for commercial activities. Poor accessibility thus contributes to the disorganization of land uses. This emphasizes the fact that transport and land uses interdepend and need to be seen as thus and planned together. In Maseru however, the relationship between transport and land uses is poorly defined due to lack of land use policy applying specifically to the town. As a result of this, land values have not been established making it difficult to assess how valuable

some areas are in comparison with others. The only area that has maximum accessibility is the town centre, Maseru west and Khubetsoana but even then the values have not been established.

These represent areas that need immediate attention of the planners in order to avoid expensive solutions that may be necessary later on.

In summary, the problem now manifested in Maseru is a result of long processes that started in the historical period. When the country was under British rule no planning of any kind was fostered. At independence the country inherited the weak machinery. This coupled with insufficient resources and urban planning was not given priority. However as the town grows, the trend can no longer be left at the mercy of arbitrary decisions that have been the norm in the colonial and post-independence period. Even the moving of the capital from Mokema to the present site was done arbitrarily. Placement of buildings and roads followed this sequence. The Physical Planning Department, was at the time of the survey, compling a plan for Maseru. This will perhaps work but it has to overcome significant problems that gathered over long periods when no planning effort was made.

CHAPTER FOUR

PUBLIC TRANSPORT IN MASERU

Long-term solutions to transport problems must take into consideration land-uses and transport technology. Land-uses become important because transportation takes place on land and is an integral part of the land-use system. Regardless of what the land is used for, activities on it generate trips and some activities generate more trips than others. The trips thus generated also place requirements on the type of transport facilities that will best suit them. The accessibility of any land or activity will depend upon the extent to which the mode of transport chosen is able to meet the trip requirements made by the activities. In turn the extent to which a particular piece of land is accessible will to a great extent determine its value and the value will also determine which activities can be located on that land. These activities proceed through interlinkages which means that the system is one whole of intertwined activities. As such land-uses and transportation cannot be viewed in isolation from one another[1].

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1. O'Flaherty, Highways and traffic (2nd edition) (London : Edward Arnold, 1974), p. 63.

This is the reason why public transport is indeed a factor of land - use. Problems that accrue from the use of such means of transport, are really a problem between land and people whereby the land is being put to particular use by so many people all at the same time.

4.0 Travel in urban areas

In urban areas, they be cities or towns, travel is one of the most prevalent conditions of life. This shows that movement is a very important aspect of living in urban areas.

Historically, the pre-nineteenth century cities urban settlements and consequent land - uses were small enough to permit travel by rudimentary means such as foot, horse, cart, bearer and others. These means were less fast although suitable for the cities then.

It was around 1820s[2] that mass transportation was developed as a new means of conveying people in cities. The nature of public transportation was such that it encouraged high - density development of residential as well as work places. The densities were also useful to encourage public transport. The separation

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2. W. Goodman, Principles and Practice of Urban Planning, (Washington D.C.: ICMA, 1968), p. 137.

of workplace and residential place was also rendered possible by the public transport system. Public transport is usually associated with cheapness and quick movement.

4.1 Institutional Arrangements for Public Transport

Regarding the vast majority of urban population which is involved in daily movement, there is need to formalise or institutionalize the provision of the service. Where externally generated traffic is present making public transport operations more difficult, there is need for even stricter control measures with very strong institutional backing. In addition, public transport and indeed all traffic and transport are the responsibility of no one agency. Several agencies have to play their roles well in order to make public transport issues a success.

In Maseru principal agencies that deal with transport and traffic include the Town Office, Ministry of Works (Roads Division), Ministry of Transport and Communication and others. The interrelatedness of the exercise with so many agencies involved all at the same time is both an advantage and a disadvantage. It is an advantage because of the degree of integration that is required for this kind of exercise, but is a disadvantage because of the lack of proper coordination

when and where it is needed. The following discussion on the agencies involved will highlight some of these issues.

4.1.1 The Maseru Town Office (Town Engineer)

The Town Engineer's office is responsible for construction, upgrading and maintenance of local roads. These are the roads which serve as access roads mainly to residential areas. In interpretation these roads are said not to serve a national function as they cannot be used by buses or freight vehicles unless it is in a highly busy area. Works done under this department comprised some M400,000 (about US $ 210,000) in 1986.[3]

This office carries out some traffic management works such as location of road signs on local roads. This is the office which introduced and administered the disc parking system in the centre of Maseru in 1984. According to Legal Notice No. 6 of 1984, the parking provided was mainly for private and goods vehicles. In section 11 the Notice clearly states that "motorcycles and pedal cycles shall not be parked during business hours in disc parking zones."[4] This would mean that other road vehicles such as stipulated above do not have facilities for parking as this is not provided for elsewhere.

3. Ministry of Transport and Communication, 4th five year Development Plan, (Maseru: Govt. Printers), p. 17.

4. Lesotho Government, Road traffic Disc Parking Zone Regulations 1984, p. 24.

The office had problems because of limited staff. This condition coupled with the task of maintaining local roads meant that the job could not be done efficiently. In order to maintain the local roads, some form of transport or traffic planning is required. The shortage of staff made this exercise impossible. The result was that the office had no programme for traffic data collection, even though this is absolutely essential for its task.

4.1.2 Ministry of Works (Roads Branch)

The Roads Branch is charged with the responsibility of construction and maintenance of gazetted roads throughout the country. All the major roads within Maseru town are gazetted roads. This means that the Branch has to combine rural and urban functions. This leads to problems because an individual urban area has special requirements for its roads which need undivided attention. So the Branch has too much to deal with that it cannot go into details in any one area.

The Branch is responsible for design, construction, maintenance, junction layout, road signing, road marking and traffic signals. This is a substantial task especially when it is done for diverse areas as is the case with rural areas which are significantly

different from the urban areas. Too many considerations have to be taken into account resulting in inefficient implementation.

For example, there are some 8 traffic signals along major roads in Maseru. The Roads Branch has responsibility over these in addition to the many rural roads and other responsibilities. Due to the hugeness of the task the Roads Branch has been unable to carry out formal road planning in the Maseru urban area. It does not even have a traffic monitoring programme for the town. The network of roads under its programmes thus seems not to be based on any traffic demand projections or quantified evaluations. This results in poor road planning, traffic channelling and management.

The Branch has a traffic count section which has the responsibility of carrying out traffic counts on all gazetted roads throughout the country. No specific provision is made for urban areas. These counts are usually carried out on inter-urban roads. Even then the exercise is carried out only occassionally and does not consider the need for continuous information - gathering especially for Maseru urban area.

The responsibilities bestowed upon the Roads Branch are too much to make it perform its functions

efficiently. In addition, urban areas need special attention and the issues affecting them cannot be fully captured under the present blanket arrangements.

4.1.3 Ministry of Transport and Communications

The Ministry of Transport and Communications is responsible for driver, vehicle and public transport licensing.

As part of their regulation function the Ministry issues permits to bus operators through the Road Transport Board on national and Maseru contexts.

The Road Transport Act of 1981 under which the permits are issued allows for control of routes, fares, and stops. The permits are issued on operator request basis. The Ministry does not carry out transport planning or demand studies which would be invaluable supports for the need of permits. As such this crucial body remains largely ignorant of what actually goes on in public transport circles.

Section 17 of the Road Transport Act states that if an authorised vehicle breaks down the permit holder may temporarily substitute another vehicle and should report such substitution to a police station within

48 hours.[5] Within ten days the holder should also report in writing such substitution to the Road Transport Board and such substitution should not last for more than 30 days without consent of the Board. However, these conditions are usually ignored and the shortage of staff to ensure that this happens makes matters worse. More often than not public transport vehicles flout this condition and it is not noticed until there is an accident in which compensations are demanded. It will only be then that the Board realises that the vehicle put on the road was not permitted.

The permits issued also make demand that authorised vehicles be or be not used on specified routes and that certain goods be or not be carried. These are also not effectively adhered to. However the most commonly flouted conditions are that fares and charges be used in connection with the carriage of passengers or goods are to be approved by the Board."[6] Very often one finds that due to shortage of vehicles on some routes unauthorised goods or fares are being used and nothing can be done because the underlying problem cannot be responded to. The most ignored of these conditions is that passengers should

5. Lesotho Government, Road Transport Act 1981 No. 6 of 1981, (Maseru: Government Printers, 1981) p. 43.

6. Ibid

not be taken up or set down between specified points. This is not possible with the adopted practice of taxi operators in particular to stop on demand. This practice is common both in the town centre and in the residential areas. Another condition provided is that every passenger should be issued with a ticket in respect of fare paid. None of the public transport vehicles in Maseru issues receipts. Another condition is that the service should be made as safe and as convenient as possible. However, nowhere does the Act specify the meaning of safety and convenience which leads to its distortion or disregard. In addition the conditions specified by the Road Transport Act have the effect of reducing the supply of public transport vehicles thus leading to shortages and subsequent "pirate" practices and monopolization of some routes by particular individuals only (Appendix 2).

In a town such as Maseru which is highly dependent on its public transport system for a large portion of the daily movements of people and weekend movements of migrants from South Africa, there is need to integrate public service vehicles with other vehicles which use the same channels. Improved public transport is essential and should be backed by law enforcement machinery to take care of lapses.

4.1.4 Traffic Police

The traffic police are responsible for the enforcement of traffic regulations. The department also maintains Accident Statistics. The data however

is not used for transport planning purposes. In addition accidents are reported per district which makes it impossible to locate the accidents specifically. For example, accident data for Maseru urban area is not easy to isolate from that of the district in general in the summarized form. In its original form the data is too cumbersome to be handled effectively because of the structure of the book that is used for accident reporting.

4.2 Conclusions on Transport Planning

Transportation planning exercise takes into account all relevant sectors. This is essential because transportation issues are part and parcel of the whole urban process. This has implications for the organizational setting within which such planning activities take place.

In Maseru, agency activities show that no particular agency is charged with the task of transport planning. There is no defined transport strategy for the town. This has resulted in many problems manifested by lack of data and poorly managed systems.

The Physical Planning Division based at the Ministry of Interior was formed in 1986. It is thus still not yet strong enough to make significant contributions to the solution of the problems. Although has

embarked on the preparation of a Development Plan for Maseru town area, the plan may be ready by mid - 1988. The plan, although supposed to include transportation issues had not yet finalised the scope of such issues at the time of the survey.

Even if a transport strategy is formulated for Maseru town, it is not certain that it will be implemented. There were general shortages of staff in the concerned agencies. In addition, implementing capacity could be questionable as it seems that at present there is no mechanism by which integration of the proposals will be achieved. Responsibilities as at present fall into categories of various ministries. For example gazetted roads are the responsibility of the Ministry of Works, Public Transport falls under Ministry of Transport and Communications, and local roads are under Town Office. This fragmented structure is not the best for the task of transport planning which requires coordination of various institutions concerned.

Various agencies undertake some traffic management activities. Roads Branch of the Ministry of Works is responsible for signals end layouts on gazetted roads, Town office for parking in the central area and others. The problem arises however that many aspects

of traffic management are not undertaken or if undertaken it is not in a planned manner. There is no comprehensive traffic management planning and no consistent traffic policy which would target activities and establish priorities.

The situation as it obtains shows lack of control and many gaps exist especially with regard to planning. This situation is conducive to inefficiencies and will worsen if not taken care of as soon as possible.

4.3 Management issues

Management of Public Transport is crucial to the operating of such a system.

Within the country public transport operations are undertaken by both the public and private sectors as well as South African Railways as noted elsewhere. Internal bus services are operated by Lesotho National Bus Corporation mainly on inter-urban routes. Private operators also contribute significantly to the supply.

There are different sizes and types of public and private service vehicles in Lesotho. These are all licensed by the Road Transport Board. There are buses with capacity reanging from 45 to 95, Coasters or Mini-buses with capacity of 25 to 35, combis (taxis)

with capacity of 10 to 15 and private taxis with capacity of five passengers. Most of the passenger transport is privately owned. There is no proper statistics however on how many vehicles there are under private ownership that are operating public transport services. However data exists as to how many vehicles were registered from between 1982 and 1984. This data shows that of the total 58703 registered vehicles between 1000 and 1400 vehicles were some form of a bus. A significant proportion of these vehicles were government vehicles [7] as the following table shows.

Table 4: Vehicles registered by year

Year	Total vehicles registered	Government vehicles registered	Government vehicles %
1982	21,004	5,108	24.3%
1983	18,081	2,873	15.9%
1984	19,618	2,463	12.5%
Totals	58,703	10,444	52.7%

Source: Road Transport Board.

7. Ministry of Transport and Communications, p. 7.

This data is not conclusive and should be seen more as an indicator of the patterns than an actual trend. It is estimated that of these vehicles 50% were "urban" buses operating in Maseru. There are in addition some 400 or so public transport vehicles in operation.[8] There are also pirate buses in operation side by side with the registered ones. In total therefore there would be something like 6 buses per 1000 population.[9] This figure compares with 0.48 to 1000 population in Asia, 0.3 buses in Africa in general and 0.63 in other developing countries.[10] This figure would seem to indicate that Maseru is well supplied with buses. However this is not the case. The car ownership in Maseru is low (about 10%). This results in high modal choice to buses, 90%. Secondly, the average bus size in Maseru is small and passenger carrying capacity is limited. For example 1980, 74% of public transport vehicles had less than 11 seats.[11] Thirdly, the proportion of buses to population changes drastically over weekends due to increased traffic as a result of migrants for South Africa.

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8. Town Office, Maseru urban project (Unpublished material).

9. Ibid, p. 11.

10. Jacobs, G.D., P.R. Fouracre and A.C. Maunder, "Public Transport in Third World Cities" The Highway Engineer March 1982, p.

11. Town Office, p. 12.

In general therefore the number of public transport vehicles per head of population in Maseru is higher than average for urban areas in other developing countries. However, when this is set against an unusually high modal choice to public transport, the bus fleet composition with a high proportion of small vehicles and increased demand over weekends as a result of oscillating labour migrancy, the ratio equates directly with the ratio for urban areas in other developing countries.

Although there are some hire taxis which operate within Maseru their impact in the transport sector is neglible accounting for 3% of total journeys undertaken by public transport.

4.4 Ownership of Public Transport

Public transport is under three classes of ownership. These are the private sector, public sector and direct government ownership.

4.4.1 The Private Sector

Private sector operations in public transport in Lesotho are quite significant. It is estimated that some 51% of public transport vehicles are under private ownership. The private sector has thus resolved to organise itself into various associations to protect

its interests. Notable associations in this regard are the Lesotho Bus and Taxi Owners Association and the TSa Habo Moshemane Ha Lijeoe Transport Association.

(a) The Lesotho Bus and Taxi Owners Association (LBTOA)

This association was formed in 1977 with the aim of causing and encouraging and advising all certified bus and taxi owners to act in unison in all matters affecting the welfare of the Association.[12] The organization is concerned with the problem of illegal operation of public transport services by unlicensed operators as well as by licensed operators.

The organization has some 1000 or so members. However, the number was not possible to ascertain due to inconsistencies in its records. The major problem that faced the organization was conflicts between its members, itself and other organizations of a similar nature and its management skills. The problem was very well elucidated by the lead story in the "Moeletsi Oa Basotho" newspaper of November 23, 1986. The paper stated that the confusion and conflict that existed between public transport owners did not seem to easy to resolve. According to the Chairman of another association called Lesotho Public Motor Transport, LBTOA was supposed to have been nonexistent as of 1979 when the new association was formed. However, the old

12. LBTOA, Minutes of Meeting.

association continued to function and it did not seem possible to establish that LBTOA was dead as it was supposed to be. One thing that became evident that were the conflicts between the organizations were very much alive. This detracted from their spirit of cooperativeness thus rendering them ineffective. As a result their voice has remained largely unheard and pirate vehicles were still very much in operation. The new organization - Lesotho Public Motor Transport was not even widely known as LBTOA and hence was seen as a confusing element. With these conflicts cooperation was largely stiffled and improvements in public transport management were made difficult. This created problems because efficient public transport service can only result from well-organized associations. In Lesotho, the private owners should be organized more than anybody else since the public transport operation is largely private.

The Lesotho International Taxis Association is concerned mainly with the operation of small taxis. Contributions of this association to public transport is small.

(b) Tsa Habo Moshemane Ha Li Jeoe Transport Association

This Association is, unlike LBTOA which is interested in public passenger transport, mainly concerned with freight transport. The aim of the organization is to bring together all patriotic Basotho engaged in motor transport and carriage of goods in order to discourage unhealthy foreign competition which stifles indigenous enterprise.[13] This organization was concerned about the unfair competition that comes from South Africa in the distribution of goods within Lesotho. This results in loss of revenue since such vehicles could not be subjected to same taxes they would be if they were Lesotho registered vehicles.

TSa Habo Moshemane Ha Li Jeoe Transport Association recognized that all vehicles registered in Lesotho have to get road clearance and pay yearly taxes that increase with the weight of a vehicle. South African registered vehicles are not subject to this condition. Also the income that is generated by these foreign vehicles is lost to Lesotho even though all of it originate from Lesotho. Their maintenance would also generate income in South Africa. These foreign registered vehicles are owned by non-citizens of Lesotho even though they actively participate

13. Ministry of Transport and Communications, p. 9.

in the economy of the country. In the end therefore Lesotho is subjected to continuous road maintenance bills in order to generate incomes elsewhere. No license fees are required of South African registered vehicles and yet dominate the goods distribution scene within Lesotho. This results in loss of revenue through non-payment of taxes, loss of income through maintenance that will be carried out elsewhere, loss of employment opportunities for garages and increases government expenditure.

It was through this system that some transport operators felt that it was unfair for they pay for the road they use while foreign vehicles dominate the transport scene but do not meet the costs of road maintenance and the like.

The organization has good intentions which however are not expressed in action. Shortage of large enough vehicles to transport goods as efficiently as the foreign - owned vehicles still presents a problem. So the situation obtaining in the country is one where Lesotho pays heavily for transporting its goods on South African transport system be it rail or road, while South African Transport Companies have free use of roads network in Lesotho.

This problem is so nagging that the Ministry of Transport and Communications intends "to strive for a just share of Lesotho/South Africa surface transport traffic."[14] The intention is to facilitate access of Lesotho haulage operators into cross border freight traffic and to facilitate access of Lesotho Bus operators into the transportation of mine labour business.

4.4.2 The Public Sector

Public transport operations in this sector are undertaken by the Lesotho National Bus Corporation formed in 1973.[15] The Lesotho National Bus Corporation Act was enacted in Act No. 2 of 1974.

The corporation operated mainly on inter urban routes. However, it suffered many setbacks and had to be grounded in 1986. Its operations have since been temporarily transferred to Royal Lesotho Defence Force. Out of the initial 43 buses only 10 are now remaining. The intention is to restructure the corporation if it can be established that it will be a viable venture.

14. Ministry of Transport and Communications, p. 21.

15. Ibid, p. 6

4.4.3 Direct Government Control

There are two categories of buses and minibuses which are run by the Royal Lesotho Defence Force and the Royal Lesotho Mounted Police. These operate mainly on intra - urban routes especially in Maseru. The Defence Force ones are called Kokoptjoe and number some 35 buses and mini-buses. Both the Royal Defence Force and Royal Mounted Police vehicles are wholly subsidised by government. They could thus be seen more as welfare passenger services than anything else. They even charge lower prices than the commercial private sector vehicles.

4.5 Facilities for Buses and Passengers

There are few bus passenger facilities in Maseru. Within most of the residential areas no bus terminals are provided. There are few bus stop shelters along the streets.

There are few passenger shelters at the kerbside along bus routes. This inconveniences travellers especially during bad weather. Even where such facilities are provided as along Main North 1 and main south 1 Highways, these are not used since most public vehicle operators have adopted the "stop on demand" policy. This is in contravention of the conditions of the permits that authorize them to operate.

Along Kingsway (the major street) some bus stop facilities have been provided. These are not available to public transport vehicles most of the time as they are mainly used for parking of general vehicles. This leads to public transport vehicles stopping elsewhere rather than at the designated places.

A central bus terminal facility exists in the centre of town near the market (Fig. 3). No bus or passenger facilities are provided. What constitutes the bus terminal is an unpaved open space which is a nuisance in rainy weather. In addition, there is confused interaction between intercity buses, urban buses and taxis as these are not separated. Street markets, general traffic, passengers and buildings coming up in the area make the condition worse. The area is extremely congested and as if that is nothing supermarket construction is taking up the space at unprecendented pace. (Plate 3).

In a town so dependent on public transport, the siting of public transport vehicle stops should take into account efficiency and safety of all traffic. Once such stops have been established they should be safeguarded against instrusions by any other modes. It seems illogical therefore for supermarkets to be springing up just in the centre of a bus terminal

which is already overloaded. With developments such as those efficiency seems a far fetched objective to come by.

4.6 Public Transport Issues

Public transport is indispensable in Maseru town when considering the low rate of car ownership.

Given the need to connect different land uses, travel forms one of the most prevalent conditions of life in the urban areas. It follows then that the travel should be comfortable, speedy and as safe as possible. However, the case of Maseru is a problem situation which needs urgent attention in order to improve the travel situation. Issues that are of relevance are as follows:-

First, for any service to run smoothly there should be institutional arrangements which can support the operation. In Maseru there are institutions responsible for public transport, but they are too many and are not well - coordinated to ensure smooth service. In addition none of the organizations is particularly charged with specific responsibilities for public transport of Maseru town.

Second, most of the establishments do not have all the necessary staff to do an effective job. So there are problems of incompetence and some duties are simply not fulfilled.

Third, the concerned institutions work rather independently of each other and no unified traffic planning exercise is carried out. This could also be attributed to the lack of policy on transport in Maseru town.

Fourth, the ownership of public transport is largely private. This would be a good incentive to offer good service. However, due to restrictive conditions of road licensing imposed on entrepreneurs by the Road Transport Board, very few vehicles get to be registered. In addition, the private owners association members are always torn by strife making it difficult to have a strong representation to the Road Transport Board through which their problems can be solved. There is that problem of poor management or organizational capacity.

Fifth, the buses owned and run by the Armed forces and the Police provide necessary service which is not provided by the private owners. However, these are also not sufficient nor are they suitable alternatives. They are wholly subsidized by government

and the drivers are also paid by the Government. They are thus run at no cost to the operators. This is not a good system and cannot be emulated by private operators.

Sixth, terminal facilities are not well-designed and are subject to misuse by traffic other than the public transport vehicles. Along Kingsway, parking spaces are limited leading general vehicles to park along the spots designated for public transport vehicles. This leads public transport vehicles to stop elsewhere along the road, sometimes blocking traffic. This also encourages the illegal practice of "stopping on demand". Elsewhere stops are free of being used by general vehicles but are generally not used due to the "stop-on-demand" policy. This would be effectively curbed by proper planning of the road system and strong enforcement of the law governing road usage. Both of these features are severely limited.

Seventh again as a result of lack of proper planning and control, the central bus terminus of Maseru is a confusion. It is the interaction of intercity and intracity buses and taxis, street markets, pedestrian traffic and buildings. The shopping areas that were being constructed in the

middle of the terminus which was already small added to this. To make matters worse, the area is not paved resulting in unsightly - situation during rains. There is need to relocate the terminus to another area free from so much interference especially from the buildings crowding on to the already limited space. This relocation will succeed if and only if the activity is made part of land use planning and transportation planning of the town.

Eighth the public transport sector is characterized by "pirate" operations and monopolies of routes. This is largely as a result of the way the Road Transport Board operates with regard to licensing, route allocation and the fare system. The net effect of the conditions specified under the Road Transport Act is to reduce the supply of public transport. Monopoly and "piracy" reign supreme. Easing of some of the conditions for licensing can help solve some of the problems and thus afford more convenience to the passengers and balance the distribution of services.

CHAPTER FIVE

ANALYSIS OF RESULTS AND INTERPRETATION

The purpose of this chapter is to present the results of the household questionnaire that was used in the survey. The implications of the findings will also be dealt with. Results of the observation schedule and traffic counts will also be presented in this section.

5.0 The questionnaire

A household questionnaire was administered to 200 households in the areas of Khubetsoana, Hoohlo, Thibella and Lithabaneng (Annex 1). The questionnaire was designed in such a way that it dealt with a broad body of data so as to delineate the transport problem of Maseru town in its broadest context. Thus the questionnaire deals with data relating to household composition, ownership of private cars, access to use of a private car that is not owned, problems experienced when travelling, household income and expenditure patterns and other pertinent issues. Transport is part of the urban system and therefore is affected by workings in other parts of the system. The inspection schedule was designed separately from the questionnaire form. It dealt mainly with names and classes of roads, service finish, provision of facilities and the condition at the time of the survey.

The observation schedule was carried out by the author in person to safeguard against errors which could have resulted if the enumerators were to do the task.

5.1 The Households

Household size ranged from 1 to 9 persons averaging 4 persons per household. This figure compares with 4.4 persons obtained in the 1986 population census results computed for the whole of the district of Maseru including its rural areas. This average (4.4) was lower than that obtained in any of the other districts. This factor was attributed to the higher proportion of urban population in Maseru. Urban areas tend to have small families which explains the the low averages. In addition it was found in this study that one-member families constituted a significant portion of the interviewees. These were mostly workers who have their homes elsewhere and live alone in town.

5.1.1 Household Heads

Of the 200 households surveyed 58% were male - headed and 42% were famale - headed.

The ages of households heads ranged from above 16 to above 60 as Table 5 shows.

TABLE 5: Household Heads by Age

Age	Number	%
16 - 30	76	38
31 - 45	88	44
46 - 60	24	12
60+		
Totals	200	100

Very few of the household heads were aged less than 25. This indicates that household heads are reasonably mature people who can implement changes if introduced.

Most of the household heads were wage employees as table 6 shows. This is significant in terms of traffic generation as these people need to travel daily depending on their place of work. However, those employed as migrants would need to travel once weekly or once a month to their rural homes. This too is a significant traffic generating factor. Table 7 shows the places of work of the household heads. This factor will enable the determination of the distribution of traffic over time and space. When that has been determined the aspects of transport affected by this arrangement will be highlighted for further discussion later on.

TABLE 6: Household Heads by Occupation

Occupation	Number	%
Government worker	110	5.5
Private org. employee	7	3.5
Migrant	23	11.5
Trader	10	5
Housewife	27	13.5
Retired	11	5.5
Unemployed	9	4.5
Other	3	1.5
	200	100

Government employment was the largest source of occupation. Taking into consideration, the placement of government offices in relation to residential areas, patterns of traffic generated are already discernable. The patterns of travel are thus undirectional both in the mornings and evenings.

TABLE 7: Household Heads by Place of Work

Place of work	Number	%
Town centre	113	56.5
Industrial areas	18	9
Outside town boundaries	14	7
Outside the country	26	13
Within the residential area	9	4.5
Not stated/N/A	20	10
	200	100

With more than half of the heads of households working in the town centre, the demand for transport facilities could be expected to increase during the working days. When too many people want to travel at the same time, as when going to work, and in the same direction this trend influences transportation facilities to react according to the demand. This causes land use conflicts as not all of those wishing to travel will be accommodated at the same time. The desire to travel becomes bigger than what the facilities afford thus leading to delays, overloaded vehicles and inevitable congestion at major points such as the traffic circle. This couples with the fact that working hours are similar for most establishments. They open at 8.00 a.m.

and close at 4.30 p.m. resulting in peaking of traffic in same directions both in the morning and in the evening.

Given the reliance on wage employment as a source of income, it could be expected that many people demand services at similar, if not same, hours every working day. The system then barely copes.

5.1.2 Other household members

Demographic data was also collected on other members of the household. The pattern revealed was that of a nuclear family which consists of a man and a wife and their children. In some instances, relatives lived with the families. However, the commonest category of people who lived with the families were domestic workers. Depending on the wealth of the household in question these ranged from 1 to 5 including gardners and drivers. For the other members of the household places of work and school were as in table 8. This is excluding the household heads.

TABLE 8: Other Household Members' Place of Work or School

Place of work/school	Number	Percentage
Town centre (work)	15	4.7
Town centre (school)	150	47.3
In the vicinity (school)	80	25.2
Outside town (school)	22	6.9
Within the house (work)	18	5.6
In the town (but not the town centre	12	3.8
Not applicable	20	6.3
	317	100.0

The number recorded exceeds 200 because other members of the households are numerous.

The total number of people who eventually travel to town centre for purposes of attending school or going to work still exceeds 50% of the total. This shows a strong relationship that exists between residential areas and the town centre in the generation of traffic. This placement of facilities in one direction results in diurnal peaking of traffic which results in inefficient use of the roads transport system.

5.2 Household Income Sources

Of the 200 households only 11% earned income of up to M100. Thirty five per cent (35%) earned between M100 and M300, while there were 42% in the category M301 to M500. The higher incomes were rare with 8% in the M501 to 600 and only 2% in the over 600 category.

There was high reliance on employment as a source of income. This was cited as the source in 68% of the cases. This indicates the dependability of employment. Once somebody is employed the amount he gets is really subsidiary to what this status brings. For example, one can easily arrange loans and hire purchases once he is assured of employment. In addition, with the increasing reliance on employment as income source one notices the increase in income which results. Employment in this case included self-employment and domestic help. The income sources were thus as follows.

TABLE 9: Sources of Income

Income source	Number	%
Employment	136	68
Migrant's remittances	23	11.5
Business	20	10
Others	21	10.5
	200	100

Combining all the employment sources as defined above a whole 89.5% income source is traced to employment.

One can therefore safely assume that where there are households heads, the greatest probability is that they are working and thus able to sustain their family's livelihood in town. Employment also increases people's buying power by offering them income (salaries). With buying power people can acquire services they need including transportation. So that we assume that the people have the ability to buy public transport services by paying their fares and those of their children other commuters who are part of their households.

5.2.1 Patterns of Expenditure

Expenditure patterns of the households were examined in order to establish the residents' ability to pay for transport services. It was found that households which had an income of M200 or less spent 52.5% of their monthly income on food. The middle income category spent 42.7% on food and the high income spent 34.7% while the highest income category spent 27.4% of their monthly income on food including fuel.

The higher the income the less the percentage of money spent on food. This means that the higher income groups can afford to save their incomes and spent

it on luxuries. It was found that in the higher income groups spending on recreation went up 3%.

Housing was the second most significant item of expenditure. More than 50% of the households lived in rented housing while the rest was shared between owned housing and company or Government houses. Government housing is the cheapest one could get. However, it is limited and usually occupied by those in the high income brackets. These people usually build their own houses which they rent out while they live in Government houses where rents do not usually exceed M16 for the biggest. Given the fact that Government is the biggest employer, the advantage of the high income categories over the low income categories needs not be overemphasized. It was found that the low income groups pay up to 15% of their income on housing, the middle income groups up to 11% and the higher incomes ones up to 8%.

Transport costs came third in the order of importance. Given the high preference to bus or taxi mode of transport, this is understandable. Thus transport costs accounted for some 10% of the monthly income of a person in the low income categories, 6% of the middle income and between 3% to 12% of the high income groups depending on whether one owns a car or not.

These variations in the amount of income at the disposal of the different categories is an important consideration for planning purposes. This enables planners to determine where to put up public transport services and to decide on their price so that they do not consume too much of people's incomes.

5.2.2 Car ownership

It has been argued that in the developed countries, the years since World War II have seen rapid increase in car ownership. This has been said to be the cause of congestion on the roads.

In this study the rates of car ownership were looked into so as to measure the cause and extent of congestion. From the results, rates of car ownership were low and concentrated in the high income groups. So even though congestion does exist, especially during the peak hours, it is as a result of road structure rather than the number of vehicles. An example of such a structure exists at the traffic circle where four lanes of main south 1 and main north 1 highways enter into Kingsway which is a 1x1 lane road.

There were private cars in 10% of the cases. Most of these (40%) were vans. Vans are not only used for transporting members of the household but also to

transport small volumes of goods. Some of the van owners operated what is called "take-for-me" business. They park their vehicles outside furniture shops and hardware stores so that people who buy bulky items but have no means of transporting their goods home can hire them. The fees charged depend on distance. In 25% of the cases the cars owned were exclusively used to transport members of the household in their various travel requirements. A significant 35% of the cars were some form of taxi or bus. Most of these were found among businessmen who used them to transport who used them to transport passengers and perform other duties connected to business.

The vehicles owned were thus mainly falling into three distinct categories. However it was not unusual to find vehicles used for a combination of purposes.

The average number of vehicles per household was 1. This was indicate a fair distribution of the vehicles over the households. However, business vehicles such as taxi and buses were likely to be more than 1 per household.

The road networks of Maseru town are limited especially between the residential areas and the main employment centres which are in the town centre. With the improvements made to Main South 1 and Main

North 1 roads, the capacity is increased in order to cope with the traffic load. After this however the roads revert to the lxl lane system. This system of roads gives rise to congestion especially during peak hours. This problem can be easily avoided by expanding the remaining networks to cater for increases in traffic. The vehicle ownership rate is still low and improvements made now especially along Kingsway will not be as inconvenient as they would be when volumes of traffic increase. The low rate of car ownership, its distribution over households and the limited roads networks combine to provide an excellent opportunity for road improvement to avoid future problems.

Most (80%) of the vehicles were used daily. The remaining 20% were used when needed which could be once a week or so. However, most of them were on the road most of the time which helps us to predict the trends on the roads which occur often enough to be considered part of the daily routine.

The purposes for which the vehicles are used vary from transportation of passengers and goods to specific private uses by the owners. The uses to which they are put overlap indicating the diversity and interrelatedness of human activities.

It was also found that even though some households have access to private cars, at times members of households resort to other modes. Of these public transport is the important one accounting for 56% of the total number of cases. Walking follows with 19%, cycling 10% and others 15%.

The uses to which these other modes are put include journey - to - work (55%), shopping 25%, journey - to - school and other purposes accounting for 10% each.

The alternative modes of transport are important because they are relatively readily available. Public transport features significantly in these showing its dependability for car owners as well as non-owners. It is always there for use by those who need to.

5.2.3 Non-car owners

A significant majority of the households (90%) did not have their own cars or even had access to company cars. Among this group there was a heavy reliance on public transport. This does not only show the preference but in most cases is the only other alternative to the private car.

Of the 180 respondents who did not own cars, 90% used public transport. The percentage of those who walked was 9%. This indicates that the values people hold shun walking as one could reach his place of work sweating, dusty and so forth. In addition most of the residential areas, apart from Thibella were a long way off the town centre and walking would not be convenient. Not suprisingly therefore a significant 80% of people from Thibella walked to and from their places of work. This also shows the lack of public transport services for Thibella. Only 4.4% from the those who do not own cars use other modes such as cycling.

Like in the case of car owners, non-owners cited the journey - to - work as the most important reason for travel. This was mentioned in 55% of the cases. Journey to school was cited in 25% of the cases and journey for a combination of purposes including shopping was cited in 20% responses.

The mode chosen was in most cases (55%) the only one available. This indicates that modes available are not diversified and indicate heavy reliance on one mode only. This presents a problem in case what is available is not efficient. Intra - urban railways are a rarity in Third World cities and towns unlike in

European and American cities where several modes exist.

Another reason cited was that the mode used was found convenient. This was so in 27.8% of the cases. The other 17.2% felt that the mode they used was cheap and thus afforded them a chance to save.

All these reasons however should be seen in the light of availability. This is to show that people use what is available so that they cannot cite what rarely exists. So in some cases it is not really what the mode can offer that attracts people but that there is limited choice, whereby they have to take what is offered.

5.3 Public Transport

As a measure of availability or supply of public transport vehicles respondents were asked whether public transport vehicles serve the area where they live in. In most cases (85%) there were such services. This meant public transport vehicles specifically licensed to serve the route that is nearest the residential area even if they could not penetrate deeper into the areas concerned. The three areas - Hoohlo, Khubetsoana and Lithabaneng were well served. However, Thibella which is closest to the town centre was not

served by public transport vehicles. The only vehicles available in the area were those which served Moshoeshoe II which happen to pass through the area. However some operators use roads which do not pass through Thibella and cannot thus accept passengers who would be alighting within the area.

5.3.1 Types of Public Service Vehicles

There were four kinds of vehicles that were found in operation in the four areas. The types differ according to size and make. Buses were reported in 20% of the cases. A bus has a capacity of 45 - 95 passengers. These were reported mainly for Khubetsoana which is served by the Kokoptjoe bus services. The other areas were rarely served by buses, if at all. Coasters (minibus) with capacity of 25 - 35 were reported in 29.4% of the cases. These were mainly from Lithabaneng and Khubetsoana areas where there were services by minibuses in addition to taxis and other kinds of vehicles. Taxis were found to be in operation in all areas. Their capacity ranges from 10 to 15 passengers. These were by far the commonest type of public service vehicle that could be found in the town. Hire taxis were centrally placed and could be telephoned from any part of the town.

The capacities of the public service vehicles and their availability in residential areas helps in determining the capability of the public transport system. This is especially important in a town so depedent on public transport as Maseru.

5.3.2 Travel time

In order to find out how long it takes for people to travel to the town centre, travel time was established from house to the nearest bus stop, waiting time, actual travel from bus stop to destination and difference in modes used.

If travel times were long then it would mean there was a significant problem and quickening the means would be an important consideration. Most people 66% took no more than twenty minutes to walk to the nearest bus stop. Twenty two percent (22%) took at least upto thirty minutes to reach a point where they could catch a public service vehicle. The other 12% took more than 30 minutes to reach their bus stop.

The longer people took to reach their bus stop the longer the total time taken on travel. While time taken to walk to the nearest bus stop would depend on how fast one walked but it also indicates how inaccessible some of the residential areas are in terms

of roads that can be used by public service vehicles. This problem was also observed in another study where it was found that most residential areas of the town were inaccessible to public transport thus lengthening the time taken to travel to the main road where a public service vehicle would be found.

Reaching the bus stop does not guarantee boarding a vehicle immediately. Thus during crush hours people could wait for up to 1 hour before a vehicle comes. This is a big problem because most of the bus stops did not have shelters. So in bad weather it can be a real hussle to wait for a public service vehicle. At Tsosane and Qoaling for example there was a shortage of public service vehicles manisfested by the long queue passengers had to make as the coasters which served the area delivered people to town while others waited with no alternative until the coasters came back. This presents a special problem in the mornings because the vehicles go all the way to the railway station in the morning and thus take longer to go and come back. This coupled with the bottlenecks experienced on the way because of the rush meant that the waiting times had to be longer. In the evenings the reverse of the process was repeated. The only difference then was that there was no queue but a real struggle for people to board vehicles. At this time the weaker ones who

cannot fight their way in when the vehicles come will have to wait longer and longer.

During the day waiting times vary. Most vehicles operate on the fill up basis. That is, they wait until they are full before they can go. During the day when passengers are scanty, waiting time can even exceed one hour. This however in a significant problem when one tries to more from town to residential areas. Apart from the fact that vehicles tend to be scanty, once they arrive (in the residential areas) they do not wait until they are full in order to move to town. They go immediately they come, the only problem being that one never knows when they will come because that depends on how quickly they fill up from the other side (town centre).

During weekends the problem is mostly experienced in the Hoohlo and Lithabaneng areas as the vehicles plying the areas are the ones that are notorious for piracy. So with increased demand for services over weekend as a result of migrant's traffic, they become very rare. Even those which do not go for piracy still become rare in the Hoohlo area. The reason being that they do not serve the Hoohlo area only but also cater for Railway station and Border post. As a result when there is increased flow of passengers as a result of migrants they fill up quickly at the border post stop and other passengers on stops

other than the border post rarely get a seat.

Waiting time depends on the flow of passengers. In addition, the public transport vehicles are not enough to cater efficiently for the demand for them. So when there is increased flow of passengers waiting times become long because of the shortage of vehicles. On the other hand, when there are not many passengers waiting times still become long as the vehicles become less frequent.

Generally time taken on actual travel, that is in-vehicle time, is not more than 30 minutes for any of the residential areas. This points to the nearness of the town centre to most residential areas.

When comparing bus and taxi travelling times 55% of the respondents felt that there was a difference. The other 45% did not feel that there was any difference. The difference arises mainly from the way in which the two types of vehicle operate and their sizes. If one were to travel by bus which waits until it is full, then it could take longer and people would prefer the taxi to the bus. Again taxis operate on stop on demand basis regardless of whether that place is a stopping place or not. This is illegal but is a practice that is carried out more often than

not. Buses on the other hand, being controlled by the armed forces cannot do the same lest the driver concerned be charged. Even if the bus drivers would wish to do so the sheer size of the bus would not allow him to stop at some places when passengers demand. In addition, provisions for bus stops in the central area of town are limited if available at all. So there is that inconvenience passengers may have to suffer because buses cannot stop anywhere like taxis.

There are some advantages however gained by travelling by bus. For example they use different routes which taxis do not use. So they tend to be the only vehicles for public transport on these particular routes. For example, on the way to Lepereng and to the Agricultural College.

5.3.3 Preferences for public transport vehicles

In order to establish public transportation need, people's preferences for bus and taxi were listed. Seventy percent (70%) preferred taxi to bus while 20% preferred the bus and 10% preferred private arrangements for transport. Reasons cited for the choice made were given as appear in Table 10 below.

TABLE 10: Reasons for preference to the mode of public transport preferred

Reasons given	Type of vehicle		
	Bus	Taxi	Private arrangement
1. Lower cost	26	30	5
2. Stop on demand/ convenience	5	80	10
3. Comfort	-	10	5
4. No other choice	10	20	-
Totals	40	140	20

65% of those who preferred the bus did so for lower costs and this constituted 42.6% of those who used costs as their criteria for deciding on modes.

However costs in any one of the vehicles did not differ much. For buses one could spent up to M30 per month and for taxis this could even go up to M40 depending on the routes as different routes are charged differently. For buses charges tended to be uniform for all areas.

Hire taxis though preferred can be extremely expensive. Due to their expenses, people are less likely to use them everyday of the month and will thus

spend less on them by using them less often.

5.4 MODAL CHOICE

From the foregoing, one factor which becomes clear is that modal choice is a function of time spent in travelling and the cost (fare) involved. These however are not the only factors, others come into play which guide the travellers to make decisions. Modal choice is but a stage in the decision - making process made by urban dweller. These decisions are as follows:-

(1) whether to travel or not - trip generation

(2) whether to travel to one place or another - trip distribution

(3) how to travel - modal choice

(4) which route to take - trip assignment.[1]

So this stage comes in when the two preceding decisions have already been made. The fourth decision is not always necessary to take especially if public transport is used as vehicles will travel on already specified routes without much room for choice. From the findings, modal choice seems to depend on the following factors - price, time taken for travel, frequency, reliability and comfort as defined by the passengers.

1. P.N. O'Farrel and J. Markham, The Journey to work: A Behavioural Analysis, (Oxford: Pergamon, 1975) p. 1.

5.4.1 Price

For essential trips that take place daily, people would prefer to save on costs of transport. Thus they prefer buses and taxis which relatively cost less. Thus 20% and 70% respectively were numbers of people who chose either bus or taxi. Also the factor of price featured significantly if each mode was taken separately. For the bus it would be 65%, taxi 21.4% and 25% for private arrangements including hire taxi.

5.4.2 Time taken for travel

Given a choice people would choose modes that would help them travel and reach their destinations within the shortest time possible. Some people believed that it took longer by bus than by taxi to reach their destination, so the choices they make would be in accordance with this. Thus from the results more people preferred to go by taxi as opposed to the bus.

However, this may not be a completely logical decision as in some cases taxi and bus stops are the same and would take one same amount of time to reach them. The individual's perception of time would offer the only plausible explanation to this difference.

5.4.3 Frequency

This would be another guiding principle. The more frequent services are also convenient as they reduce total travel time. Thus it is better to wait for a taxi than for a bus because a taxi is smaller and fills up quickly and can thus be more frequent while a bus takes longer to fill. Even if it does not wait until it is full before it can depart it would still be less frequent given the lack of facilities for it in Maseru town centre. Thus taxis are better preferred to buses.

5.4.4. Reliability

The factor of reliability is tied to that of frequency. It "comprises punctuality of vehicle arrival at the embarkation point."[2] This point is of special interest to workers as they need to be punctual to their workplaces. Buses tend to be less reliable as they may go and not come back. Taxis and coasters are sure to return and thus of high preference compared to the buses.

5.4.5 Comfort

This again is of more significance to workers than to anybody else. In the case of Maseru

2. P.J. Hovell, et. al. The Management of Urban Public Transport: A Marketing Perspective (Westmead: Saxon House D.C., 1975), p. 46.

this is expressed in terms of body fatigue caused by standing, position and number of seats, the capacity and access to space for packages and the general appearance of the vehicle. In coasters although there is provision for standing passengers some tend to be too short to allow comfortable standing. So if it is in the crush hour they may not be preferred because if one happens to be in a standing position the neck will be very painful by the time one alights. In addition, coasters have a tendency to overload to the extend that some people sit on the dash board. This is clearly uncomfortable and invonvenient should the traffic police be on the road. Some taxis have broken seats which make sitting uncomfortable and such would be left in preference for ones that have better seats and can thus maintain the smartness of travellers. Most taxis have ample space for parcels in their boots. These would clearly be preferred in case somebody is carrying a lot of things. The buses (RLDF) although they have provisions for parcels tend to avoid bulky materials or dirty ones thus encouraging people to choose taxis instead where everything would be accommodated so long as it is not of too big a size. This coupled with their stop on demand characteristic make them very preferable, and somebody with a lot of parcels will not alight too far from his house so as not to suffer the inconvencience of carrying the bulk for too long after alighting.

5.5 Trip analysis

Details of trips undertaken by household members in the past week were examined. The purpose was to look into trip generating behaviour to know how much traffic is handled by the road transport during a week (7 days).

5.5.i Origin and destination

From the survey most trips originated from homes. This was the case in 85% of the cases. However, 15% of the trips did not originate from home because some members of the household were not home then. However all of the journeys to work started from homes. This was accounted for in 58% of the cases. This also proves Hypothesis Number 3 that most trips made in the town are between workplaces and residences. Manning also argues that "each journey to work starts from a dwelling and proceeds to a workplace."[3] Arguing on the same point O'Farrell and Markham write that "the journey to and from work presents the most serious and apparently insoluble transportation problem in the city."[4] Thus the journey - to - work is, and will remain, public transport's largest segment especially

3. I. Manning, The Journey to work, (Sydney: George Allen & Unwin , 1978), p. 47.

4. O'Farrell and Markham, p. 2.

given the commitment to maintain a compact city structure.[5] As long as the workplaces remain centrally located and mostly in the CBD the journey - to - work will continue to be a significant phenomenon of towns and problems associated with it will be those of the town. Indeed one of the most fundamental problems of the modern city is the separation of the workplace and the dwelling place.[6]

The other trips were between residence and place of school (28%), residence and shopping place (10%) and residence and place of medical care 4%. The land use activities thus become important traffic generators.

Overall the road transport system accommodates about 183650 trips from homes over any working week. Over the weekends the number accommodated increases but mainly in one direction only. That is from town centre to places beyond the town boundaries. The number rises to 367300 when considering the to and fro journeys.

5.5.2 Frequency of travel

The frequency with which travel is undertaken depends on the nature of occupation, the type of activity (purpose) and availability of time.

5. Hovell, et. al. p. 231.

6. Dickinson, p. 186.

For all workers whose workplaces are located away from their residential areas travelling is daily activity. Employment tends to be more centrally located than housing resulting in the need to travel everyday on the part of the workers. This was the case for 60% of the respondents.

Other people did not need to travel to town centre everyday. These included those whose workplaces were not in the town centre and the domestics whose workplace s is the household. For these other people the need to travel to town centre depends on other needs apart from Journey to work requirements. So the frequency with which one travels is a factor of needs other than work.

This establishes the fact that demand for transport is a derived demand. Rarely, if ever were people travelling for the sake of it. Always they were travelling to fulfil some obligation be it journey to work or leisure. If there is a high demand for transport services this is an indication of how busy the town is and the variety of activities people engage in. The more the activities there are, the more the need to connect them and thus increasing demand for transport. Table 11 shows the different rates at which respondents need to travel to the town centre for whatever reason.

TABLE 11: Frequency of Travel to the Town Centre

How often do you travel to town centre	Number	%
Daily	60	30
Twice a week	10	5
Once a week	30	15
When necessary	30	15
As often as possible	70	35
Totals	200	100

Regardless of the frequency with which journeys are undertaken they encounter serious problems. These problems are manifestations of the imperfections in the system of transport.

5.5.3 Problems encountered when travelling to the town centre

The respondents were asked to give problems they meet when travelling to the town centre. Fifty - five percent (55%) felt that there was indeed a problem while 45% saw no problems.

The problems given can all be traced back to management aspects of transportation system and to the influence of externally generated traffic on that which is internal to the town. The enumerators

were instructed to record the responses in their order of importance. The results were as in Table 12.

TABLE 12: Problems experienced in travelling to town

	1st Problem		2nd Problem		3rd problem		Overall	
Problems	No.	%	No.	%	No.	%	No.	%
Slow moving traffic	25	22.7	23	20.9	18	16.4	66	20
Overloaded vehicles	30	27.3	13	11.8	17	15.4	60	18.2
Delays due to police cheeks	23	20.9	28	25.5	10	9.1	61	18.5
No. facilities for bad weather	15	13.6	16	14.5	24	21.8	55	16.7
Not enough passengers to fill vehicles	10	9.1	20	18.2	22	20	52	15.7
No enough vehicles to satisfy demand	7	6.4	10	9.1	19	17.3	36	10.9
Totals	100	100	110	100	110	100	300	100

From the table slow moving traffic scored the highest. This is an indication of the fundamental problem relating to layout of roads. They are structured in such a way that shows that growth of the town was not expected. This is especially the case with the traffic circle.

All vehicles coming in from Main North 1 and Main South 1 encounter a bottleneck at the circle. Both roads are dual carriageways but enter into 1x1 lane roads of Kingsway and Mosheshoe Roads. So a problem arises when four lanes enter into two. This problem tends to be more significant during peak hours.

Another problem which causes delays is the traffic police. Many of the public transport vehicles are habitual law breakers. They provide the essential service nevertheless. When the police do find such vehicles, they impound them and order passengers to alight on the spot where they are. This leads to a reduction in the number of vehicles which means that waiting times will be long. In addition, after alighting at such points as the police impound the vehicle passengers have to complete the rest of the journey on foot or wait for other vehicles. This results in delays.

During the peak hours, overloading is almost unavoidable given the inadequate supply of public transport vehicles. This combines with the slow moving traffic and longer turn-around times and presents a big problem to travellers.

At bus stops, shelters are largely non-existent and also passenger facilities are lacking by the sides of many roads. So if it rains, and people have to wait for taxis in such conditions then there is a problem. During off-peak hours there are generally few passengers. The result is that public service vehicles will take a longer time to fill and thus cause inconveniences to some people travelling them.

There was also expressed concern that public service vehicles are not enough resulting in shortages as manifested during busy hours. This was especially the case during peak hours when people have to wait for long periods. Also over weekends when vehicles go for piracy, long waiting times are experienced.

The problems experienced become significant during morning peak hours (44.5%). Also during day time (8.2%) during the evening peak hours (30%), when it rains (7.3%). Other 10% of the respondents felt that the problems are more significant over weekends when increases in traffic flows far exceed what is normally expected. This increase is attributed to the migrant traffic from South Africa.

Regarding the solutions to the problems experienced 91% of the people felt that solutions could be found while 9% saw no solutions possible.

Most of the suggested solutions were of a corrective nature. That is, the solutions aimed at addressing what is felt to be the problem and not its cause. Thus those who felt that there were not enough vehicles saw the solution in increasing the number of public service vehicles licensed. This may be a half-solution to the problem as more vehicles will not necessarily mean proper functioning of the system. So before such a decision could be made the need would be there to address why the existing vehicles do not cope. As a way of ensuring that such vehicles increase in number, reduction in sales tax was another suggestion. There have been complaints on the part of operators that the sales tax required of public service vehicles is too high, almost doubling the price of the vehicle. So if sales tax were to be reduced then more business people will be able to afford the vehicles. With more vehicles, overloading will be ruled out, it was argued, and the police would not have to be a bother. Other solutions included establishing the necessary facilities along the roads to ensure passenger safety and comfort. These solutions cannot be effective unto themselves if the real issues at the core of the system are not addressed. The problems arise mainly as a result of lack of proper management and organization. Once this has been addressed, the efforts will have gone a long - way towards achieving solutions that will last.

5.5.4 Satisfaction with public transport

Generally the respondents expressed satisfaction with public transport. This accounted for 52.2% (94) of the cases. The other 47.8% were disatisfied with the services arguing that the services lack proper organization, that there were too few vehicles to afford efficient service and that requirements for running such a service were too expensive. Others expressed concern that public service vehicles were driven carelessly endagering other road users and were sometimes overfilled with passengers.

In order to improve the services of public transport, it was suggested that more vehicles running on an organized principle are needed.

5.6 Observations

A number of observations were made regarding the roads and provision of facilities along them. This was done in order to establish the extent of the problem and find its explanation in terms of the physical components.

5.6.1 Roads

The roads network in Maseru town is limited. This is about 600 kms. in length and less than 100 km. of these are bitumenised. Most of them are one lane wide in each direction. A few exceptions are the recently build Main North 1 and Main South 1 Highways which have been increased to 2x2 lanes[7] in some sections near the traffic circle. For the Main Nroth 1 the 2x2 lanes have been introduced between the traffic circle and the junction near Lakeside Hotel. For the Main South 1 such improvement have been made from the junction at Thabong up to the traffic circle.

The improvements are largely incomplete or if complete a source of a major problems. They have to be viewed as incomplete because corresponding improvements have not been made along Kingsway or Mosheshoe Road. During crash hours there happens to be a major bottleneck on approaches to the circle because of this condition whereby 4 lanes lead into two.

Along Kingsway provision for 2x2 lanes are further down about 2 km. from the traffic circle. These lanes are undivided and are mainly for turning vehicles. Along Moshoe Road also the would be lanes are

7. Roads Branch.

specifically designed and marked for turning manoevres.

The remaining roads estimated at 400 - 600 kms. are largely untarmacked and these are the responsibility of town office.

Generally, there is limited number of arterial routes leading from residential areas to the town centre. This makes travel times longer as to get to the road requires walking for some distance. Given the heavy reliance on public transport accessibility should be the major issue. Local roads were very poor and mostly unpaved thus encouraging poor penetration of public transport services into residential areas. The exception in this was the Khubetsoana area where the roads existed, though untarmacked but were of a good quality. Again the bus terminal was more or less centally placed so that walking distances were minimal.

Maseru town is not a planned area such that there is no control for development and random location is the rule rather than the exception. This state of affairs effectively limits prospects for new roads development. Land uses are actually jumbled up to the extent that if a site has to be acquired for road construction, it will be very costly in terms of compensation.

All the major roads (gazetted) that are the responsibility of the Ministry of works - roads Branch are generally well kept. The problem is with the urban ones - local roads. These are poorly maintained.

5.6.2 Terminal facilities

Within all residential areas there are no bus terminal facilities with the exception of Khubetsoana. Along the streets there are very few bus stop shelters and in the central area facilities are not sufficient for buses.

The central bus terminus is a pathetic case. It is located in the busiest part of the town, next to the market. This is the area where most of the shops are concentrated on a small piece of land. To add to this the area is a confused interaction between urban buses, city buses, traffic, street market activities and passengers. In the midst of this confusion gigantic shops are coming up in the area to congest it even further. The area is not paved and when it has rained, the conditions passengers and vehicles have to endure are really appalling. Plate 6 shows this ever so clearly.

5.6.3 The traffic circle

The traffic circle is Maseru town joins Kingsway, Main South 1 and Main North 1 highways and Moshoeshoe Roads. In morning peak hours (7.30 a.m. - 9.00 a.m.) one direction traffic flows on Main North 1 and Main South 1 are 800 vehicles per hour. Because of the condition of lanes connecting to the circle as mentioned earlier congestion results and vehicles counted during such period were to the order of 1400 an hour.

5.6.4 Parking

Disc parking was introduced in Maseru by Legal Notice No. 6 of 1984. Disc parking zones were established along Kingsway and on surrounding roads such as constitution road.

The scheme was supposed to be run by the Town Engineers' office. However, it was not operating effectively and tended to be very expensive to run. It was not possible to establish how many parking spaces were available under this scheme.

Provisions for off-street parking exist and do not show much of a problem in town centre as private organizations have their own private parking.

The main problem with parking can be observed around the central bus terminal. Spaces are limited and the confused interaction of activities make this problem worse. Almost all the parking found there is off-street parking. This contributes to the congestion found in the area.

5.7 Accidents

It is argued that Lesotho has one of the highest accident rates in the world. According to estimates the causes of these accidents are distributed among three contributors as follows: Man accounts for 77%, the road condition 14% and the vehicle 9%.[8] Over the period 1976 to 1986 national accident range was between 75 and 120 fatalities per 10,000 registered vehicles.

Maseru district always has the highest accident rates. However, this could be misleading as specific data could not be isolated for Maseru town. It is estimated however that the rate for Maseru town is higher than the national average and with anticipated growth of the town the rate might worsen.[9]

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8. Litaba tsa Lesotho, June 1987, p. 1.

9. Ibid

In 1986 Maseru accounted for 104 road deaths of the total 230 reported. Table 13 shows the extent of accidents in Maseru as compared to other districts. The table also shows that the next most urbanized district after Maseru has the second highest rates of accidents. It would thus be safe to assume that rate of accidents is related to urbanization. From this we could also conclude that the high rate of accidents reported for Maseru district, a significant portion is contributed by Maseru town.

TABLE 13: Accidents by District 1986

District	Accidents				
	people killed	People injured	Vehicles damaged	Traffic offences	Total
Botha-Bothe	11	42	54	460	567
Leribe	33	102	213	802	1150
Berea	15	132	154	548	695
Maseru	104	396	1171	4855	6526
Mafeteng	22	160	159	604	945
Mohaleshoek	25	121	142	552	840
Quathing	9	84	62	278	433
Qacha's Nek	4	85	18	179	286
Mokhotlong	6	23	27	165	221
Ihaba-Tseka	1	8	12	86	107
Totals	230	1153	2012	8529	11770

Source: Traffic Police, Maseru.

Maseru had the highest number of accidents overall, even traffic offences recorded for Maseru were higher than those recorded for any other district.

From the Police records it was not possible to establish the cause of the accidents. It would seem that the accident statistics are collected with no purpose in mind. There is currently no planning (traffic) excercise being carried out for which data of this kind would be used. The result is the many loopholes and the failure to target campaigns to reduce road accidents to relevant courses.

The Road Safety Department of the Ministry of Transport and Communications is doing an ineffective job in this regard. Their main target is to educate school children on road safety and usually see the problem as emanating only from the human element. As such they have failed to reduce road accidents as these are on the increase from year to year. This could be attributed to their lack of relevant training.

Road accidents are a manifestation of the real problems underlying them. That is, they are results of misuse of the road transport system or the vehicles thereby. Therefore to effectively curb the accidents, measures should be directed to the cause rather than the effect

as is now the case. Public education measures should come only later when the real issues have been dealt with.

5.8 The Hypotheses

Various aspects of the analysis have proved the hypotheses that were proposed at the beginning of the study.

Hypothesis 1:

Road transport is the most predominant mode of transport within Maseru town. This has been proved to be true from the observation schedule. No other mode was in evidence besides road transport. In addition, modal choice to the bus was high (90%). Combining the fact that no other form of transport was observed and all public transport vehicles used the road, the hypothesis is true therefore. Only 9% of the respondents walked to their places of work while only 4.4% cycled.

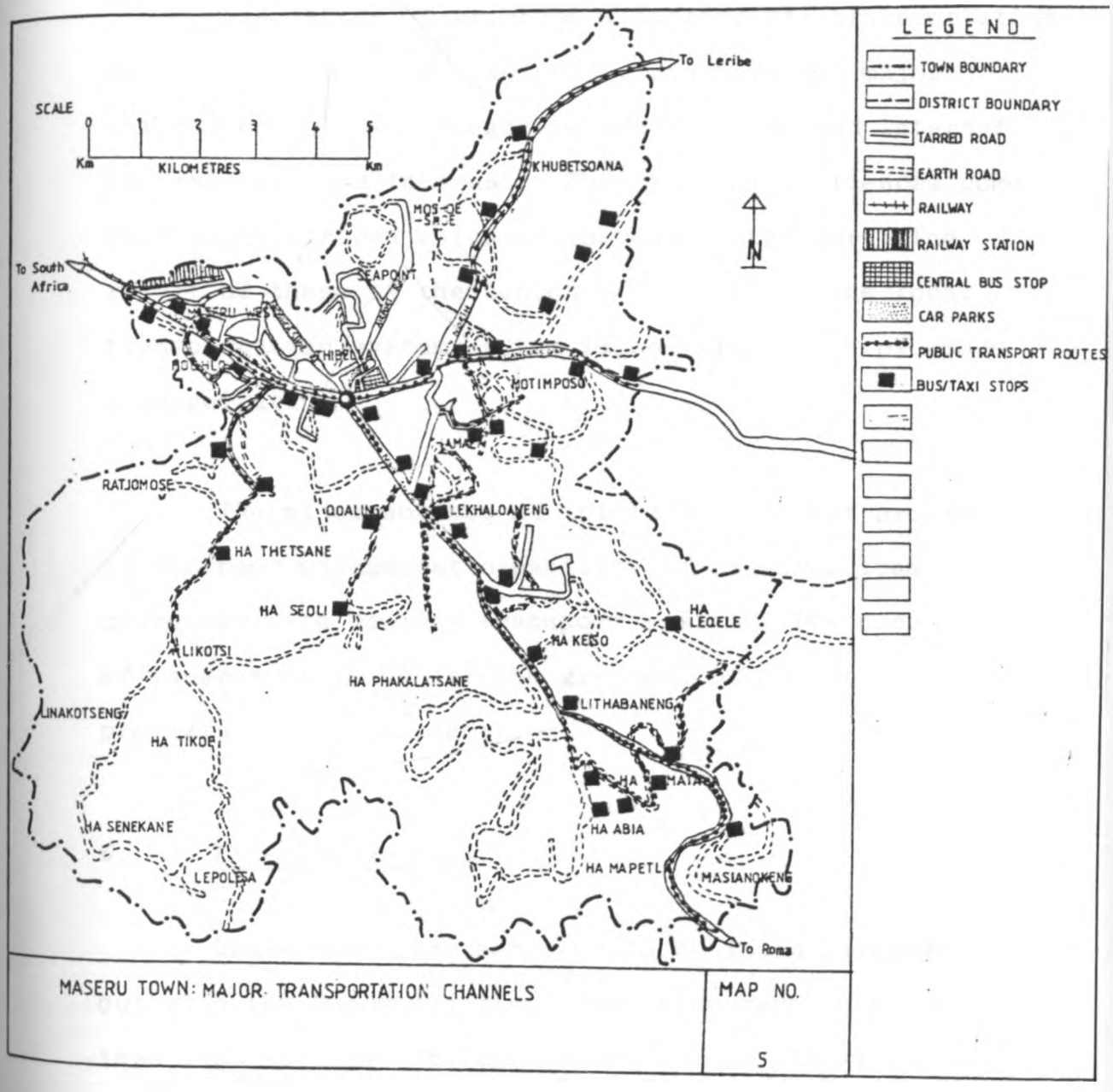
Hypothesis 2:

Public transport is the most dominant means of connecting to activity sites. Maseru features a very high reliance on public transport. Private car ownership rates were low (10%). The rest 90% of the people had little, if any, alternatives but to go for

public means. Also modal choice for the bus was quite high (90%) of all mechanised modes and 82% when walking was included. Asked for their preferences 70% of the respondents preferred public means which are easily accessible to most people and relatively cheap.

Hypothesis 3:

Most trips made in town are between workplaces and residences. Overall 55% of the journeys made were journey - to - work. Given the reliance on employment by most people the journey - to - work feature becomes very important.



MASERU TOWN: MAJOR TRANSPORTATION CHANNELS

MAP NO. 5

CHAPTER SIX

SUMMARY OF MAJOR PROBLEMS

The nature of problems affecting the transportation system of Maseru town can be divided into two major categories. These categories are External and Internal. The external and Internal. The external influences come from South African which is the only neighbour. The result of these is the tendency to overload the local transportation system and to impose high costs of goods transportation.

The major sources of internal transport problems is the poor management capability of organizations concerned with Mawru's transport system. The problem of management is by far the greatest of all other problems in this category.

6.1 External Factors

Under these are not only to be found passenger but also the goods traffic. The passengers that are important here are the migrants. These, almost exclusively, are the passengers who dominate the transport influence from South Africa.

6.1.1. Passenger traffic

Most Basotho men, estimated at more than 50% of the total labour force are employed as miners in South Africa. These people are not allowed to take their families with them to their place of work. It becomes necessary to travel home as frequently as possible to take care of their families as men are household heads in the patrilineal society of Lesotho. This frequent need for travel makes some impact on the transport system. In most cases South African registered vehicles ferry these migrants from the mines, but can only go up to the border and cannot cross over. From the other side of the border Lesotho transporters have to take over.

Maseru town seems to be the most popular destination or exchange point. It accommodates about 60 - 80% of the travellers. Only a small fraction of these remain in Maseru the majority proceed further on to other parts of the country. Maseru is preferred because of its relative centrality and ease of access to other transportation means. Although there are other border posts which could be used, access to and from them is difficult, exceptions here being Van Rooiyen's Gate (Mafeteng), Ficksburg (Maputsoe) and Maseru Bridge. Maputsoe is the next busiest destination after Maseru

but it is too far for people travelling further south. So Maseru has that advantage of being highly accessible and near enough to transportation vehicles heading further south and to the mountains. For travellers who want to go to places like Mashai, Semongkong and Mokhotlong, the best thing to do is to go by air. Maseru is near enough to the airport. Given the limited time (weekend) that migrants have to spend, the quickest means are the best. This relative advantage from the point of view of the migrants poses the problem of demand for transportation. Public transport is heavily relied upon in Maseru within the working days. The extra demand that comes with "weekenders" is far above what is normally expected. The result is over-loading the transport system of Maseru which barely copes. In addition, operators take advantage of this increased demand and exploit the inter-urban routes even though it is illegal. During the weekends the demand for taxis is higher than for buses. The argument here is that taxis go faster than buses and given the hurry the migrants are in to reach their homes, the buses would obviously be a waste of time. So taxis disappear on intra-urban routes during weekends leaving most people stranded.

As a result of these, other problems feature. The piracy issue comes to the fore with all the risks it involves. For example, at one time a taxi was ferrying

people over weekend, yet it was not licensed as a public service vehicle. On the way, it had an accident where eight people died. Now when compensation issues came up, it was very difficult to hold anybody responsible.

So the "weedkender" traffic is a real problem and shows the inadequacy of the transport systems to cope. This creates the desire in operators to satisfy the extra demand. But due to restrictions imposed upon them by the conditions of the Road Transport Board, the only way to satisfy that demand is by resort to illegal means. In the end when the worse has come to the worst, neigher the passengers, nor the Road Transport Board or the operators themselves can be held responsible. The institutional arrangement seems to flounder when it comes to weekender traffic.

On return to their places of work, the migrants still face the same difficulty. They will yet be in a hurry to get to the borders before they are closed. On the other hand, the Maseru operators will be largely idle because it will usually be a Sunday and intra-urban demand for transportation will be low such that it will be very difficult for operators to resist the temptation of exploiting inter-urban routes.

Thugs have also taken advantage of this situation. It is not uncommon to hear of incidents where a posing public transport vehicle turned wild on the

way and the driver and the tout robbed the passengers at gun point. After such incidents the doers cannot even be traced because theirs was not even a registered vehicle in the first place. These incidents of thuggery had become so rife that in the current National Plan, the Ministry of Transport and Communications proposes to "facilitate access of Lesotho Bus Operators into the transportation of mine labour business".[1]

6.1.2 Goods traffic

Most goods enter or leave Lesotho through South Africa. Because of its relative advantage in relation to other towns, Maseru tends to be the most popular destination for goods from South Africa. It is from Maseru that such goods are distributed to other parts of the country. Two major problems arise out of this situation.

First, the roads network of Maseru is limited as pointed out elsewhere in this work. So having to accommodate the large hauliers from South Africa which sometimes go into the interior of the country poses problems. Such problems are manifested by congestion along Moshoeshoe Road which leads from the Industrial

1. Ministry of Transport and Communication, p.21

area and Railway station to the traffic circle. The big commercial vehicles are always slow and add to the congestion which results from the bottleneck at the traffic circle. Again as a result of limited road networks, Moshoeshoe Road remains the only road used by these vehicles. No other road exists which could cater for this as Kingsway is not suitable taking consideration of the fact that it passes through town centre.

Second, the bulk of other goods is transported by rail and offloaded at Maseru. From this point distribution is by the road system. The railhead represents lost revenue which Maseru would receive and use it to improve its services especially the roads. The railhead is under the South African Railways although located within Maseru. If Maseru urban authority (Town Office) were to institute some form of taxing for the railhead, the revenue could be used for road improvement. The railhead benefits South Africa more than it does Lesotho and Maseru is not using it to generate revenue even though it is within its area of administration. This is also tied to the management problems.

6.2 Internal Factors

Problems under this category centre around issues of transportation policy and organization in Maseru. Traffic management and control, land use patterns and

topography are among the other significant problems which need immediate attention.

6.2.1 Roads Layout

The roads layout in Maseru is not well developed and no hierarchy of roads has been established. This is in part as a result of the weak planning machinery that was inherited from the colonial period. In addition to this, the infrastructure is not developed. The only colonial landmark that remained in terms of infrastructure was the Kingsway. Lack of planning has led to uncontrolled building patterns which do not leave space for roads. Thus the existing roads network is extremely limited and does not extend to many of the existing residential areas (Map 5). There exists some 600 km. of roads only 10% of which are bitumenised.

Many of the residential areas do not have roads resulting in long walking distances to places where transportation means could be found.

The only good roads are the gazetted ones which are maintained by the Roads Branch of the Ministry of Works. The local roads which are under the town office are generally poor in condition and are not used by public transport vehicles. This is a critical situation

because public transport constitutes 90% of all mechanised modes and 82% when walking is included. Accessibility of the road system into residential areas should be a major issue in view of this high reliance on public transport.

6.2.2 The Topography

The topographical conditions of Maseru limit its prospects for development of not only the town but the roads system. Development threshold in respect of the town include the hill especially the one next to the traffic circle. This hill has presented problems in the past when a by-pass for Kingsway was contemplated. Although possible to open a road at the base of the hill, it was found that it could be too expensive. However, lack of sufficient data on traffic patterns also made this venture impossible as it was not established how the demand for the new facility would be.

The other development threshold is the existing land uses. These also pose a threat to future development or expansion of the roads especially Kingsway.

6.2.3 Policy Matters

Maseru has no urbanization policy or policy that could guide urban development. The result is the jumble that Maseru is in. The Physical Planning

Department was only recently formed and not much has been done to introduce a policy toward urban development. What would have been a policy on urban government is largely deficient. The urban Government Act of 1983 cannot be used to guide urban growth. However, under it Maseru has been established as a Municipality. This was done as recently as 1987. So to date a policy on urban development had not been made. Such a policy would have to include transportation issues. However, evidence showed that the plan (Maseru Municipal Plan) that was being drafted did not include plans for systematic transportation issues.

Again Maseru does not have a policy on transportation. Policy on transportation that exists covers the whole of the country and in some cases does not apply to Maseru at all. It is the Policy of the Road Transport Board to allocate long routes to big buses and have coasters and taxis on shorter and urban roads. This however, has not been implemented. Indeed the Kokoptjoe (run by the Defence Forces) and the others run by Police Forces rarely travel on longer routes and yet these are the big buses. Again it would not be realistic for the Road Transport Board to retain all taxis to serve in the urban areas as such areas are small and could not generate enough profits for operators who at present use small vehicles (taxis) on long routes.

It is again the Roads Branch which is responsible for fixing and maintaining traffic signals in the town. With no policy, it is difficult to detect errors should the Roads Branch make them resulting in dysfunctions of urban traffic.

No particular agency has responsibility for transport planning and very little formal planning and evaluation ever take place. This is compounded by the fact that there is no traffic management policy to target activities. So activities are largely of a haphazard manner. Transport planning is carried out by far too many organizations which are poorly coordinated. These include the Roads Branch under the Ministry of Works, Town Engineer's Office under Maseru Town Office, Traffic Count Section, Ministry of Works; Road Transport Board, Transport Controller and Road Safety Section under the Ministry of Transport and Communications; Traffic Police and now the newly formed Physical Planning Division.

6.2.4 Accidents

Lesotho is said to rate fourth among the world's countries with worst accident records. Most of these accidents occur in urbanized the more areas. Maseru ranks first among them. Although data does not exist for Maseru town one can assume that the accidents arise in the town because in the other parts of the

district there are not so many cars.

The accidents are recorded by the Traffic Police and sent to statistics section, Ministry of Transport and Communications and to Roads Branch. The form used by the Police is too large (about A 1 size) and has too many columns and details. Because of its large size it is not carried onto accident sites, but would be filled in the office on return. Inaccuracies in recording are possible.

In any case, given the absence of traffic planning machinery, the accident data are not used for any purpose. The use to which they have been used so far is not worth it. It has been used largely by the Road safety Branch of the Ministry of Transport and Communications to prepare a Road safety programme for Radio Broadcast. This is ineffective and accidents continue to happen, if anything, at an increasing rate. The data is not used to design remedial measures or to enable better traffic control.

The big form has to be summarized before being given out to the various departments. These summaries cut off a great deal of details which render them ineffective for traffic planning purposes. Although every detail is available in the big form, on the

summaries it is not possible to find the cause of accident which would help in the targetting of remedial action.

6.2.5 Paucity of data necessary for transport Planning

In order to undertake transport planning various categories of data are needed. These include origin-destination surveys, traffic counts and the like. Data of this kind is not available or if available is not of a good quality to enable proper planning.

Traffic data on main roads was last collected in 1980 in Maseru. Traffic counts at the traffic circle were last collected in 1984 by the Ministry of Works. These were collected over one week and over 12 hours. The individual hourly totals were no longer available. These could not even be used as comparative results in this study.

Other forms of data necessary for the planning exercise were never collected. Data such as movement surveys, Roads and Facilities surveys and others were not available.

This paucity of data is both the cause and effect of poor traffic and transport planning, if any takes place at all.

6.2.6 Public Transport

Taking the number of vehicles registered as public service vehicles there is a public transport supply figure of 6 buses per 1,000 population in Maseru. This would seem high by the developing world's standards as for the other countries the figure would be around 1 vehicle per 1000 people[2]. However, a closer look at the figures would reveal the same average for Maseru. This will be due to the low rate of car ownership, 10% according to the analysis and due to the high modal choice to public means. Moreover, the taxis, that are common in Maseru have limited seating capacity (10 - 15 seats). Thus problems of shortage of public service vehicles still surfaced in the survey results.

Because of the shortages experienced and the lack of proper control pirates are common especially over weekends when migrants increase, significantly, the demand

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2. World Bank, Urban Transport, (Washington, D.C. World Bank, 1970), p. 31.

for transport.

Although conditions of the permits issued by the Road Transport Board specify routes public service vehicles do not necessarily adhere to them. Hig demand induces "pirate" operations.

The stop-on-demand criteria used by the vehicles is another problem. This combines with road traffic during peak hours and the condition of the road to make matters worse. Appendix 2 shows a writer's impression of the situation.

At peak hours most public service vehicles were observed to be overloaded but almost empty during the other times of the day. At peak periods the central bus terminus could be seen streaming with different long queues as vehicles do long journeys ferrying other passengers while others have to wait until the buses/taxis return. This indicates shortfalls in supply.

According to this there seems to be unsatisfied demand for transport which has prompted the introduction of buses by the army and the police and also the "pirates". The permit systems of the Road Transport Board seems to be the inhibiting factor as some routes are not adequately supplied while new applications are often turned down.

The problem of crush hours, coupled with lack of public transport policy and appropriate data regarding volumes and movement patterns makes it difficult to know how much growth can be expected in passenger traffic more so as the town continues expanding.

Physical facilities for public transport vehicles and passengers are limited along the roads. There are few shelters at bus stops. On the New Main North 1 and Main South 1 highways provisions have been made for bus stops. But due to the stop on demand mode of operation they are rarely used resulting in unnecessary congestion and predisposing other road users to accidents.

Facilities provided for public transport vehicles along Kingsway are usually used for parking of general vehicles, encouraging the vehicles for which the facilities were meant to stop elsewhere. Coupled with the stop-on-demand phenomenon, such facilities seem to be under-utilised or misused.

In the residential areas, with the exception of Khubetsoana, there are no facilities for either public service vehicles or passengers. Accessibility of the road system into such areas is generally poor. There are no arterial roads connecting such areas and the local roads are poorly maintained. This effectively discourages public transport operators from providing services into these areas.

The Central bus terminal area is a confusion of inter and intra urban buses and taxis, street markets, general traffic and passengers. The area is small, yet is in the busiest part of town. It has no facilities for both passengers and vehicles. When it rains the ground becomes too muddy to be comfortable since it is not paved. To add to this deplorable state of affairs buildings for supermarkets were coming up in the centre of the terminus area as is shown in plate 3.

6.2.7 Traffic Planning and Management

Traffic planning and management issues cannot be separated from the whole system of urban planning. Given the lack of urban development and land use control policy and the fact that the Physical Planning Deparment has been established only recently, no formal traffic planning was carried out for Maseru.

Various agencies, with little coordination, have been undertaking various aspects of traffic management. The Roads Branch has been designing and placing road signals and markings on gazetted roads. The town office had undertaken some parking using the disc parking system which has not worked properly. Most importantly, many of the other important aspects of traffic management have not been undertaken. The result is

that there is no data to support measures to reduce accidents, protect pedestrians, provide and regulate public transport facilities and the like.

There is no traffic management policy for Maseru and operations are largely of a haphazard nature. This has led to lack of policy on improvement of pedestrian conditions inspite of the fact that in 1985 accidents that occured within Maseru 57% of them involved pedestrians whereby 38% were killed and 19% injured.[3]

On main roads, traffic counts have been carried out although in a discontinous manner. However, on local roads there has been no consistent programme of traffic counts. So if road improvement were to be carried out, there would be no basis for doing so.

6.2.8 Law Enforcement

One of the weaknesses of the transportation institutional arrangements is revealed by the lack of traffic regulation enforcement.

The Road Transport Board has elaborate regulations with regard to permits and setting of fares, routes and

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3. Ministry of Transport and Communications, P. 36.

penalties should the regulations be flouted. However, enforcement is generally weak and there was no transport controller in Post who would ensure the enforcement of such rules and conditions of permits. Thus the rate of traffic offences was very high for Maseru in 1986 and the pirate buses and taxis still operate.

The disc parking scheme along Kingsway was not operating effectively and was expensive to maintain as it failed to collect enough revenue. This failure was due to lack of enforcement. The operation of the systems requires that two wardens and the driver of a vehicle be present when a parking ticket is issued. This is expensive and difficult to achieve. If there are many vehicles looking for parking and both of the wardens concentrate on one, the others may feel it is a waste of time and drive off to park elsewhere where there is no disc parking. Again the traffic court system usually fails to enforce penalties and to collect fines from the offenders.

The traffic Police are responsible for the enforcement of traffic regulations. In addition they direct traffic at locations where and at times when mechanical devices fail. For example at traffic signal points. These functions though seemingly simple, are important components of traffic management. Training

is required in order that these tasks are performed well. However, the traffic police have little training in traffic so that they do not operate effectively.

Traffic signals sometimes fail to respond to changes in traffic flows. Thus at peak and off-peak hours the time allowed for vehicles does not change. This presents problems because during off-peak hours motorists are reluctant to wait for the green light thus risking getting an accident. This failure is demonstrated by the occassional Police officer controlling traffic at the signals when the signals are still working. Conflicts often occur between the device and the Police Officer. Depending on where one is looking, pedestrian or motorist, it seems confusing to see the light turn green and yet no car is supposed to move because according to the policeman it is pedestrian crossing time. Accidents often occur at such points and often affect the Police officer himself.

Apart from the lack of training in traffic management, the police also lack essential equipment such as speed checks and up-to-date communications equipment. This makes the management of traffic quite ineffective.

6.2.9 Street Markets

This problem is related to that of lack of control and enforcement of traffic regulations as well as to that of nonexistence of traffic planning principles. Often market streets intrude on the road space. These, especially along Kingsway at about 800 m. from the traffic circle and most parts of the street near the market and the Central Bus terminus, are placed on the pavement where pedestrians were supposed to walk. This forces the pedestrians to walk onto the road. In addition, the aim of the vendors is to display their items as close to the road as possible, thus occupying same part of the road space. This effectively reduces the road space and combined with (see plates) off-street parking makes the roads congested.

This problem is compounded by the physical pattern of Maseru as described before. Maseru has not been planned and placement of land uses is largely random , thus reducing prospects for adequate road spaces in the built-up areas and making such proposals extremely expensive. Adding to this are winding configurations and changing road widths as we have seen. Kingsway has sections of 1 x 1 lanes, 2 x 2 lanes and facilities for channelization of traffic. Thus the 1 x 1 lane just after the traffic circle results in congestion and

combines with street market activities to reduce the road width further. But immediately after this narrowing the road widens to 2 x 2 lanes. Also Main North 1 and Main South 1 highways have only short sections of the dual carriageway on approaches to the traffic circle. The rest are 1 x 1 lanes.

6.3 Summary

Maseru is not yet a large town and the current traffic and transport problems are not severe compared to other towns and cities in the world. However, the town is bound to grow, car ownership which is low at present will increase and traffic will also increase and more will be needed in terms of public transport. It will become increasingly necessary to ensure that existing traffic and transport facilities are used properly and any future allocations to the transport sector are well managed. To achieve these, it is essential to improve traffic and transport planning and operational capabilities in the town which are at the lowest ebb at present.

The problems presented are capable of amelioration and should not be left to compound themselves with the growth of the town. The problems of lack of control of urban development and transport planning are the major ones at present. If these are addressed sufficiently, and with the urgency they deserve, Maseru can change for the better within a short time.

Plate 1 : Street Markets intruding onto the Road space.

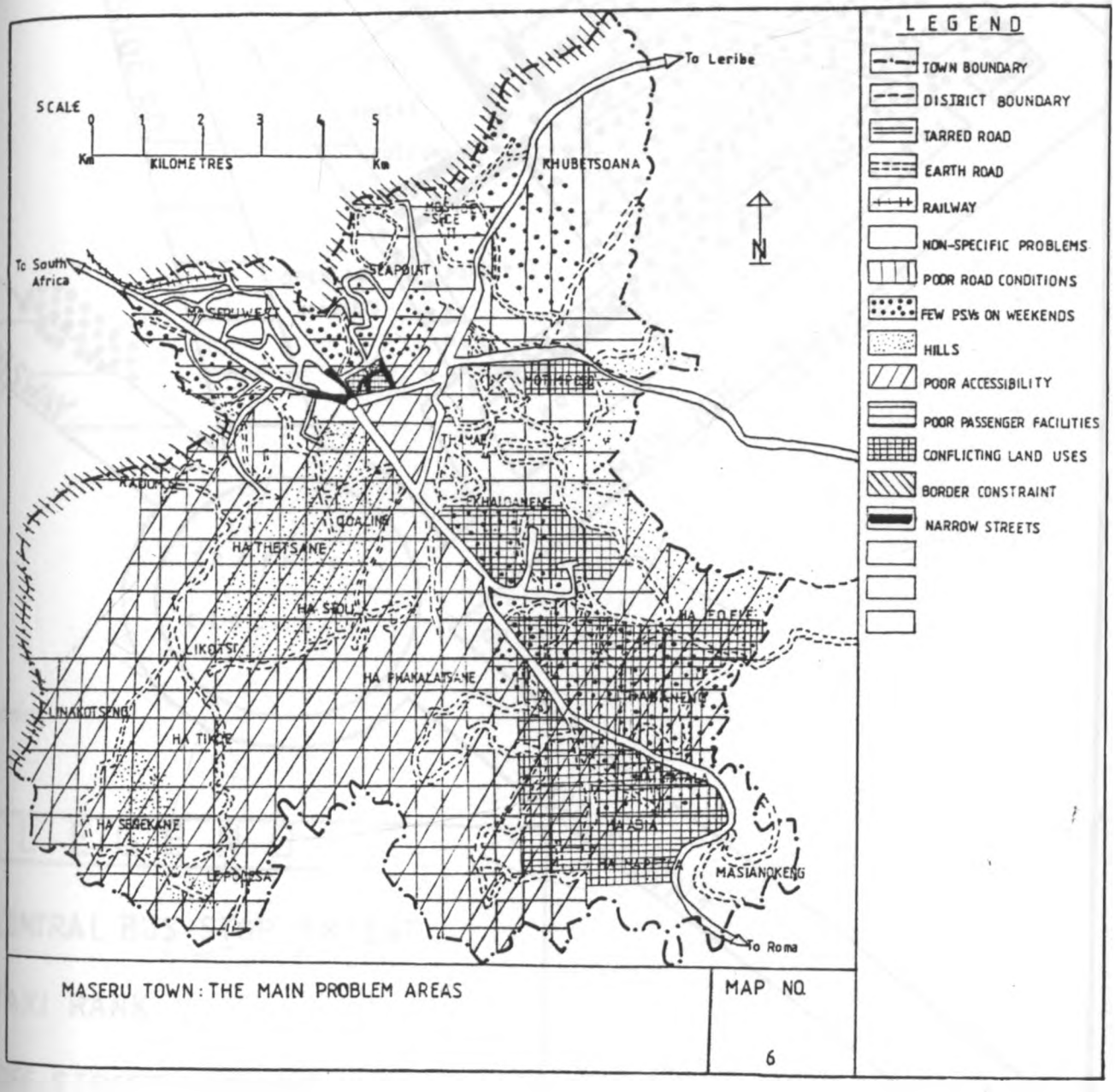
Plate 2 : The Central Bus Terminus; new buildings reducing further the already limited space. The hill in the background is a development threshold.

Plate 3 : This shopping complex is part of the buildings that are springing up in the Central Bus terminus.

Plate 4 : The Railway station, offloading of coal and the change of modes.

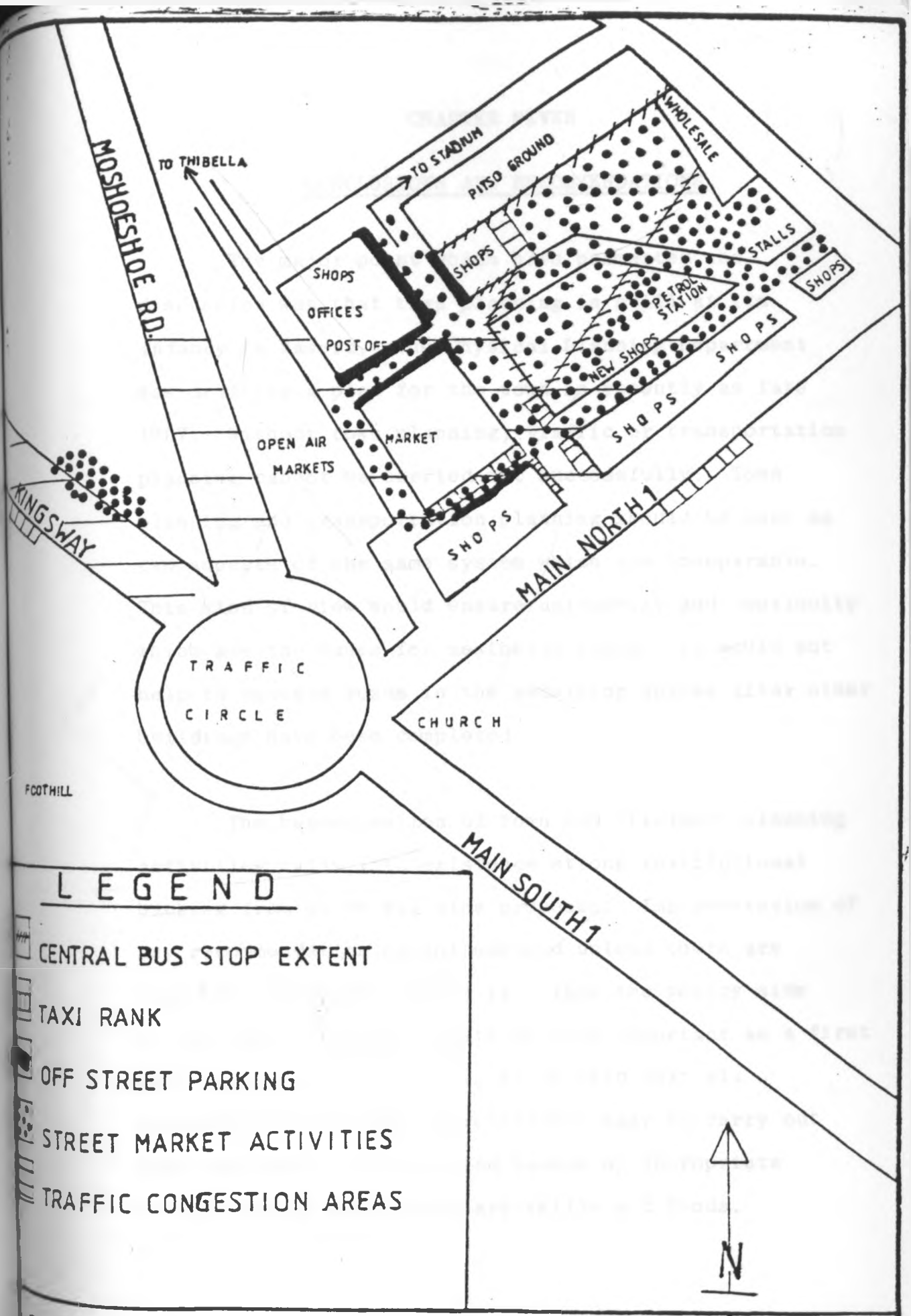
Plate 5: Some of the prevailing road conditions in residential areas. The lucerne crop on the unfenced roadside plot covers part of the road.

Plate 6: The condition of the ground at the central bus terminus when it has rained.



MASERU TOWN: THE MAIN PROBLEM AREAS

MAP NO. 6



PROBLEM AREAS: SUPPLEMENT TO MAP 6

FIG. NO. 3

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

The major point which have permeated the discussion was that town planning is still at its infancy in Maseru. The Physical Planning Department was drafting a plan for the town as recently as late 1987. Without town planning, traffic or transportation planning cannot be carried out successfully. Town planning and transportation planning should be seen as two aspects of the same system which are inseparable. This kind of view would ensure uniformity and continuity which are the bases for aesthetic towns. It would not help to squeeze roads in the remaining spaces after other buildings have been completed.

The harmonisation of town and transport planning activities calls into existence strong institutional backing from which all else proceeds. Implementation of any recommendation cannot succeed unless there are institutions which support it. Thus the policy side of the problem potrayed here is more important as a first step towards the solution. It is held that all subsequent action can be relatively easy to carry out once the policy is sound and backed by appropriate establishments with necessary skills and funds.

7.1 The Structure of Town

It was considered in this work that development of Maseru town is largely uncontrolled. No policy exists to guide the process of development. This has led to over-building in some areas leaving no land available for further development. As a result of this measures that improve upon roads (building new ones or widening existing ones) are bound to be very expensive as virtually, no land remains as deferred land that can be used for expansion of roads near the city centre. Residential areas are very diverse in both form and location. With the exception of the high income areas, Khubetsoana and the Thibella and Seapoint locations, local roads are virtually absent and no arterial connections exist between residential areas and the town centre.

Due to these conditions and many more discussed elsewhere the need for rigorous town planning is very urgent. It is recommended that the efforts of the Physical Planning Department, recently formed, be strengthened. This strengthening exercise will have a bearing on the institutional arrangements for managing the town.

7.2 Transport Policy Recommendations

There was no defined transport policy for Maseru. The policy guidelines provided by the Ministry of Transport and Communications through the Road Transport Board apply to the country in general. It is recommended that transport policy be formulated for Maseru specifically.

Such a policy should include the establishment of a body that will be responsible for transport matters affecting the town. Such policy should enable and enforce activities such as transport planning, traffic planning and management. It should also take into account the place of urban planning so that its policies do not conflict with basic principles of planning and land use control.

7.3 Institutional Policy

There was no particular institution that could be held responsible for urban transport. Various agencies were involved but poorly coordinated. It is always difficult to get people from various ministries and departments to work together successfully. So a mechanism should be worked out by which such coordination should be formalised so that uniformity of purpose is achieved.

If a transport policy is to be implemented there is need to integrate the actions. For this to succeed there is need for establishment of a body that will enforce the policy. The first priority should however be given to strengthening and guiding the actions of existing institutions - Ministry of Works, Ministry of Transport and Communications, the Maseru Town Office and the Physical Planning Department and the Traffic Police so that they are better able to support each other.

The Police should be trained in the aspects of traffic management so that they will do their job more thoroughly and are better able to enforce traffic regulations as expected. It is the most important function of the traffic police to prevent accidents. With little more training this could be achieved. At present Police - traffic work mainly concentrates on reporting the accidents but no ameliorative measures are introduced to the extent that the accident data available tends to have no particular use. In addition, the traffic police need to be more thoroughly equipped so that they can enforce traffic law better. In this way they can support the accident reduction, parking system and many other activities of traffic management better.

To ensure proper reporting and recording of accidents so that safety measures could be implemented, there is need to redesign the Traffic Police accident report form. The aim should be to make it more manageable so that it can be carried to accident site. Well - trained traffic police will immediately be able to tell what information will be useful and combined with accident prevention policy this should not be a difficult exercise to carry out.

The proposed establishment of Maseru Municipal Council is a step in the right direction. The urban government will be better able to manage the affairs of the town including transportation to cancel out the vacuum that exists at present.

In order to improve upon the situation a committee should be constituted out of representatives from Ministries of Transport and Communications, Works, Town office and the Traffic Police in order to undertake basic task of policy recommendations and proposals. To ensure that the committee functions effectively and is not just a repetition of failure experienced elsewhere with multisectoral committees, it should have a technical arm that will evaluate the impact of proposed policies. The technical

arm should also prepare policy initiatives for consideration by the committee and assign responsibilities for action to the various committee agencies. The technical arm should be made up of transport planners, physical planners, engineers and police so as to harmonise activities as considered elsewhere in this study.

7.4 Traffic Management

In respect of traffic planning and management it was found that there was no traffic management policy so that the direction of development in this aspect was not discernable. There were no targets; collection of traffic data did not take place and no priorities were set. No one agency was responsible for a whole range of traffic management activities. Many of the essential aspects of traffic management were not undertaken and the traffic law enforcement was of a low level.

Response to these problems impinges upon the functions of many established agencies as referred to in the previous sections. Not to be underrated of these agencies is the public information and support agencies. If traffic management exercise is to be of any use the general public should be made aware of the functions and responsibilities of the various

agencies involved in this exercise. Thus community leaders should be involved in these education campaigns. It is recommended that the campaigns be directed to all categories of people such as administrative heads of government, police officials, magistrates, teachers, planners and businessmen who represent commercial users of the streets and the frontage activities. These can then pass on the information to other people to ensure widespread campaign coverage. Additional support should be solicited from all motoring organizations and garages such as the Pioneer Motors, National Motors, Maseru Ford and the like. The media should be used more effectively and the present Road Safety Programme on Radio Lesotho should be injected with life by being run by qualified staff who know how to analyse the problem.

It was considered in the case of Maseru that the traffic in town is connected with traffic in other parts of Lesotho as well as traffic in South Africa. Traffic from outside the town still accounts for a fair proportion of the traffic that will be found in Maseru. So depending on the way in which external traffic is directed into and distributed over Maseru's traffic network, it may give rise to congestion as is the case with the central bus terminus. It is important that it is directed in such a way that provides relief. The case of Main North 1 and Main South 1 highways shows

the effect of the way in which external roads were led into town. This resulted in congestion which led to the upgrading of the two to the present status, but the problem is not fully addressed since congestion still occurs around the traffic circle due to the way in which the traffic is led into and out of the town.

Simple widening of the existing roads without modification of the way they are used will not yield better results. A case in point here is Kingsway, even if it were to be widened or a bypass build for it, it is no guarantee that it will cease to be encroached upon by pedestrians and street markets. So real improvement will consist of the ability to manage traffic in such a way that continuous flow of traffic, unobstructed by street market activities and ensuring a higher degree of safety is maintained.

Piecemeal measures will not address the question of improvement fully. What Maseru requires is a general plan for the whole traffic network so that homogeneity with uniform safety, capacity and efficiency of the traffic system can be achieved. To do this the team spirit between town planners and transport planners should be fostered as any road development or improvement thereby is as important from the planning point of view as it is a critical traffic link.

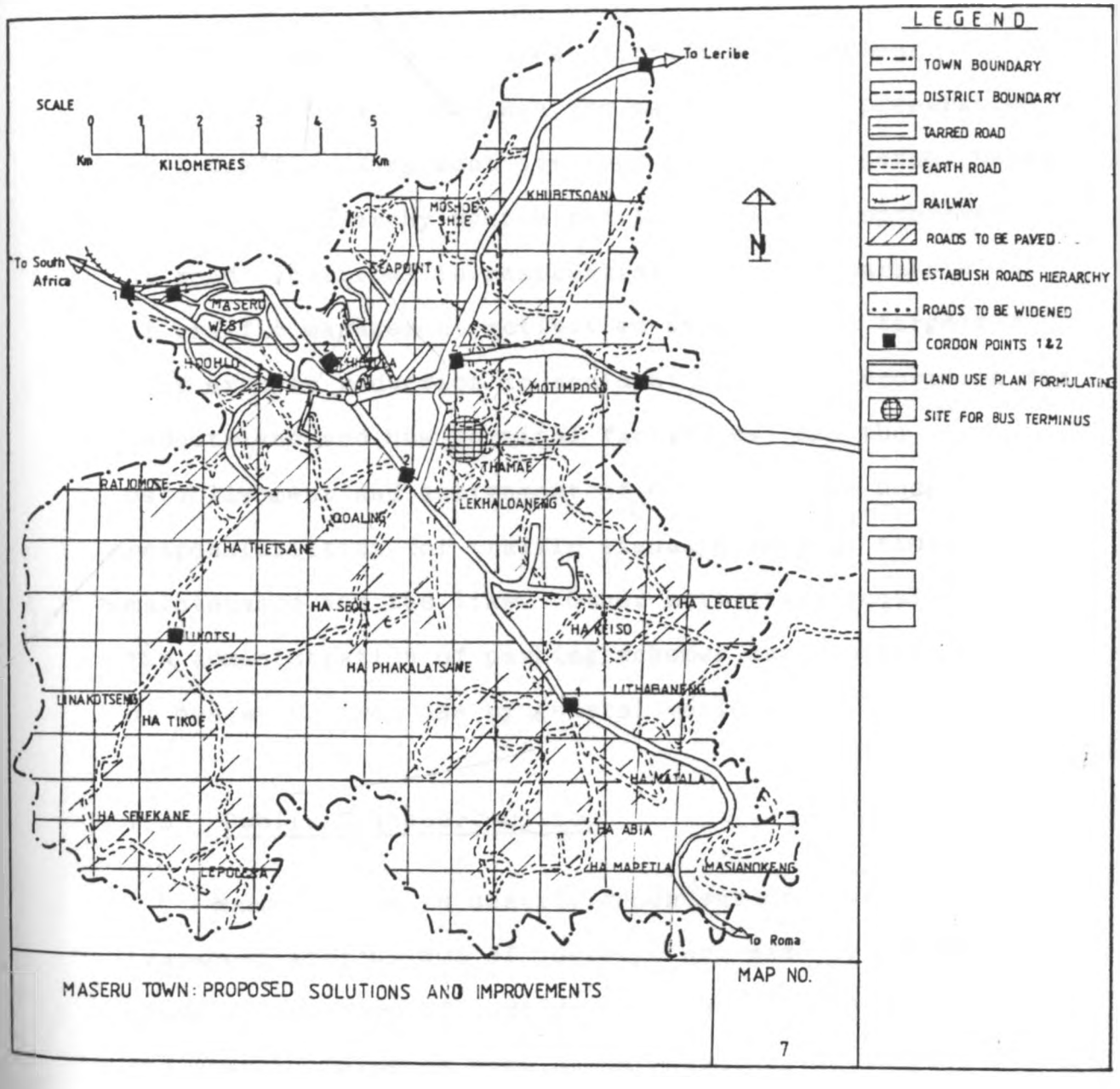
Traffic planning should no longer proceed in a vacuum, void of any town planning input. Any new construction surely generates new traffic and it is essential to work out how such traffic will be distributed over the town's traffic network. Thus land uses and traffic are essential partners whose activities should be controlled to avoid conflicts. Such conflicts will be avoided only if the remaining aspects of traffic management are carried out in Maseru. Among the many that have been identified as lacking the important ones include:

1. Traffic analyses. These were last made in 1984 and for that matter in an inconsistent manner. It is recommended that such should be made at regular intervals. A twelve - hour traffic count should be made at selected points in the town at least over a continuous 1 year period. Important points should be the traffic circle, the major junctions such as Moshoeshoe and Airport Roads, along Kingsway, in selected locations along Main South 1 and Main North 1 highways. For example infront of the National Teachers Training College in the case of the former and infront of Lesotho High School gate in the latter. Such an exercise would enable predictions and effective planning of traffic

management installations such as flyover footbridges as these locations are subject to school children's traffic.

2. Origin-destination surveys should be made at least over a 12 - hour period starting at 6.00 a.m. in the morning and ending at 7.30 p.m. Such could be done over a minimum of 6 months continuous every day. This would enable reasonable support for any new road proposals such as the contemplated by-pass for Kingsway. It is suggested that a double - cordon counting method be used. The outer cordon could be on the outskirts of town at places like Maseru Bridge. Thetsane, Lithabaneng and just after Khubetsoana. The inner one could be made at the immediate precincts of the town centre. For example just after the Thabong roundabout along Main South 1, near the Thibella location along Moshoeshoe Road to industrial area, along Moshoeshoe Road midway between Maseru west and Hoohlo residential areas and along Main North 1 just before the Lancer's Gap Road junction. (Map 7).

This exercise would help traffic planning in that it will make it possible to subdivide traffic into four necessary classes in the context of Maseru.



MASERU TOWN: PROPOSED SOLUTIONS AND IMPROVEMENTS

MAP NO. 7

These classes are through traffic, terminating, orginating and local.

In summary activities of traffic management that need to be undertaken are as follows:- preparation of a traffic management strategy for Maseru; establishment of a road hierarchy system for local roads; improvement of road conditions in residential areas; preparation of traffic management activities which can be targetted (for example reduction in accident problems, provision for pedestrians and bus terminal facilities) and the establishment and assignment of duties to one body with responsibilities for traffic signal planning, timing and maintenance and the like. Other activities required are the administration of parking schemes and protection of bus stops from use by general vehicles.

7.5 Public Transport Policy

Maseru town is heavily dependent on public transport whereby 90% of journeys are made by public means in the form of taxi or bus. With the growth of the town in terms of population resulting in longer distances from places of employment there will be increased demand for public transport services.

At present no public transport planning takes place. No data is collected on demand levels for public transport, neither is the data on bus passenger loadings

and waiting times. Although the Road Transport Act of 1981 establishes elaborate public transport regulatory measures, these are not carried out to the full as the enforcement power is weak. The quality of the public transport service is generally poor, the terminal facilities are poor or nonexistent in both the town centre and in the residential areas. Public transportation vehicles do not penetrate into the residential areas, because of the poor road conditions.

It is suggested that a public transport policy be instituted for Maseru urban area. Such a policy should aim at enhancing the existing public transport services to cater adequately for the existing demand and the supply should take into account the factor of town growth. The policy should also deal with increasing the quality of the service such that it is reliable, frequent, comfortable and convenient throughout the week. The aim should be to curb the fluctuations in supply which result from increased migrant traffic. This would require setting aside certain operators to cater for the migrants travel needs so that the local traffic is not inconvenienced. The existing Police and Armed Forces buses could be used to ferry the migrants over weekends to and from their homes so that public transport supply is not drastically affected over the weekends. This could also reduce the congestion at

the central bus stop where interaction of intra city and other traffic causes confusion. The army and police force buses could take the migrants from the border post such that they do not have to go through the central bus terminus to add to the congestion there. This could also help protect the migrants from thugs who usually pose as public transport operators only to rob them.

The provisions of the Road Transport Act are only partly applied. Permits conditions only apply to routes and fares. It would appear that buses and taxis are not allocated routes as a result of felt passenger needs but are unilateral decisions taken by the Board. At the time of this survey the Board's inspectorate had no officers in post. This meant that the Board could not enforce its own conditions. It was thus very difficult to say whether the many conditions are good or bad.

The incidence of pirate buses and the introduction of public transport vehicles by government departments - the army and the police - shows the unsatisfied demand for services. At the same time, for pirates it is an indication of the private sector's willingness to operate and supply the services. This trend should be encouraged and some of the restrictive conditions of Road Transport Act should be repealed. Such a move

would help eliminate the controls under the Act which inhibit the supply of public transport services. Liberalisation of the regulations is essential for allowing free entry to the market of many operators. Contrary to the present limitation whereby the Road Transport Board allocates routes, operators should be allowed to select routes they like. The Board should only come in to see to it that the vehicles meet the required safety standards and that the drivers are competent.

It is considered that the poor condition of roads into residential areas inhibit the supply of transport services to the areas. It is recommended that the roads be reconstructed and surfaced in order to attract public transport to penetrate into these areas.

Bus facilities in Maseru are of low standards. The confusion at the central bus stop contributes significantly to the problem. The area is a mixture of city buses and taxis, inter urban buses, street markets, passengers and worst of all big imposing buildings in the middle of the confusion. There is need for improvement of this facility. To do this a completely new site is needed for the construction of the bus terminus. The new facility should be paved and

reserved mainly for inter-urban buses. The existing terminus should no longer be inundated with buildings but be upgraded so that it can be used by intra-urban buses. These would help accommodate the taxis which by now have no space to wait for passengers. The taxis that operate on Lithabaneng route and the Seoli one face this problem most. Since the improvement of the Main South 1 to a dual carriageway, the off-street parking they used to get was no longer possible and have since had to move to a small space along Main North 1. This space will not be available for a long time as it is very close to the Catholic Church and is too small to be convenient. In addition, a huge building is coming up just a few paces from the spot. When that building is complete it will no longer be possible to use that small piece of land as a taxi stop.

It is proposed that the central teminus be relocated to an area behind BEDCO between the Main South 1 and the Main North 1 highways. (Map 7). When the relocation has been done, the terminus should be designed in such a way that conflicting activities are segregated. In addition,passenger facilities should be installed for protection against the weather. This location is ideal for such a purpose. because it is relatively empty and has access to a major street that leads to both highways. In addition it has the advantage

of removing inter-urban traffic from the town centre thus easing congestion.

In order to provide a sound backing for the improvement of the intracity terminus, the numbers passenger loadings and waiting times should be identified. Passenger demands should also be established by carrying out origin - destination surveys and noting the extent of inter change between city and inter city vehicles.

7.6 Summary

All the recommendations made in this section have a bearing on policy. Once Maseru adopts urban development policy, transport policy and traffic policy, much of the existing problem will have been tackled. The lack of policy guidelines not only inhibits proper functioning of the system but is actually a source of problems. These are some of the problems that obtain from the peculiarity of the situation in the town as alluded to earlier on at the beginning of this work.

With regard to externally generated traffic Maseru town has little or no control. However, with proper planning, management and control such traffic can be adequately catered for without inconvenience to local traffic.

7.7. Conclusions

The following conclusions are drawn from this study:-

1. The existing structure of Maseru is an indicator of lack of proper management and control.

2. There is a heavy concentration of employment in the CBD in the form of government offices, commerce and others.

3. There is intensive use of the road transport system only during a few hours of the day as a result of the skew in the placement of activities.

4. Maseru is growing and can be expected to grow thus making implications for demand for more services including transportation.

5. No policy exists on urban development or on transport. This leads to other problems which need urgent attention.

6. Problems facing Maseru today hinge around lack of control implying institutional weaknesses.

7. Transport planning is the responsibility of no one agency.

8. Topographical conditions in Maseru will force development to be of a high density or encroach more and more on Berea District.

9. Coordination is essential to achieve balanced growth which is necessary to ensure.continuity.

10. The public transport system of Maseru is subject to the same institutional constraints that have led to the urban system's dysfunction.

11. The urban system of Maseru is a unified whole to the extent that weaknesses in one subsystem have repercussions for the rest of the system. As such there is need to coordinate activities of transport planning with those of town planning.

12. Most of the parking system in Maseru central area is of the backout type and this predisposes parked cars to accidents from on-coming traffic or the backing out car can block traffic.

13. The scope of institutions involved with transport should be increased and the necessary staff, training and equipment be acquired.

14. Land use plan for Maseru does not exist. This is required as a first step in trying to do anything about the transportation problems mentioned here.

7.8 Suggestions for further research

Various topics of research can be covered in relation to Maseru town. Indeed very little has been done on it. Among the many areas that could be covered the following need urgent attention:-

1. There is need to undertake a land use development plan for Maseru. This actually forms the basis of all other work.

2. There is a need to conduct Maseru urban transportation study, which will deal with detailed origin/destination surveys, traffic counts and the like which will enable efficient traffic management and planning.

3. Characteristics of migrant traffic are also important. For the effect these have on internal traffic,it would be interesting to know how much of the migrant traffic remains in Maseru and how much passes through and to which destinations. This would also provide information

as to whether it is necessary to avail special transportation arrangements for migrants or not.

4. A detail study on the incidence of costs incurred by Lesotho on South African Railways and transportation systems especially with regard to Maseru border post. This would also explain whether it is possible to generate revenue from the railhead that the Maseru Municipal Council can have access to in order to implement its projects, especially maintenance of ungazetted roads.

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APPENDIX I

HOUSEHOLD SURVEY FORM

Road Transportation Problems in Maseru - Special reference to Public Transport.

(Note: Information supplied will be kept strictly confidential and will be used for academic purposes only)

Area ---------- House No. ----------

Date ---------- Time ----------

Name of interviewer ----------

THE HOUSEHOLD:

1. How many people live in this household (excluding visitors) ----------

2. Enter details of household head in the first row, informant in the second and all other members below:-

	Sex	Age	Rel. to head	Marital status	Occupation	Place of work/school
1.	---	---	------	-------	----------	----------
2	----	----	----------			
3.	----------					
4.	----------					
5.	----------					
6.	----------					
7.	----------					

3. What is the total income of this household per month?

   1. up to 100 ----------
   2. 101 - 300 ----------
   3 301 - 500 ----------
   4. 501 - 600 ----------
   5. 601 + ----------

4. What are the sources of this income?

   1. Employment ----------
   2. Migrant's ----------
   3. Business ----------
   4. Other (specify) ----------

5. How much is spent monthly on the following (approximate)

   1. Food ----------
   2. Fuel ----------
   3. Travel ----------
   4. Recreation ----------
   5. Other (specify) ------

6. Is this house

   1. Owned by the household ----------
   2. Rented by the household ----------
   3. Company/Government owned ---------
   4. Other (specify) ----------

7. If rented, how much is paid for rent per month?

   1. Lesst than M50
   2. M51 - M1-0 ----------
   3. Over M100 ----------

8. Does the household own any vehicle?

   1. Yes ---------- (If yes go to 9)
   2. No ---------- (If no go to 10)

9. If yes, what kind of vehicle (Giver numbers)

   1. Car ---------- Number ----------
   2. Van ---------- Number ----------
   3. Taxi ---------- Number ----------
   4. Bus ---------- Number ----------
   5. Other (specify) ----------

9(a) How frequently are the vehicles used?

   1. Daily ----------
   2. Twice weekly ----------
   3. Once a week ----------
   4. Sometimes ----------
   5. Other (specify) ----------

9(b) For what purposes are the vehicles used?

   1. Passenger transport ----------
   2. Freight transport ----------
   3. Hire ----------
   4. Other (specify) ----------

9(c) What other modes t do household members use?

   1. Public transport ----------
   2. Company vehicles ----------
   3. Cycling ----------
   4. Walking ----------
   5. Other (specify) ----------

9(d) For what purposes are these other modes used?

1. Journey to work ----------
2. Journey to school ----------
3. Shopping ----------
4. Other (specify) ----------

10. If no, in Q.8 what method of transport do household members use?

1. Public transport ----------
2. Private (lift) ----------
3. Walk ----------
4. Other (specify) ----------

10(a) For wahat purposes is the method used?

1. Journey to work ----------
2. Journey to school ----------
3. Shopping ----------
4. Other (specify) ----------

10(b) Why is the method used?

1. It is the method used? ----------
2. It is convenient ----------
3. It is the only one available ----------
4. Other (specify) ----------

PUBLIC TRANSPORT

11. Are there any public transport vehicle services in this area?

1. Yes ----------
2. No ----------

12. If yes, which types are they?

    1. Buses ----------

    2. Taxis ----------

    3. Others (specify) ----------

13. How far is it from this house to the nearest bus stop? ---------- (in minutes)

14. On average, how long does it take for one to wait at the bus stop before a vehicle comes?

    1. During crush hours ----------

    2. Ato other times of day ----------

    3. During weekends ----------

15. How long does it take on average to travel to town by public means ----------

16. Is there any difference when travelling on a bus as compared to taxi?

    1. Yes ----------

    2. No ----------

17. If yes, what do you think causes the difference?

    ---

18. Which public transport vehicle do you prefer?

    1. Bus ----------

    2. Taxi ----------

    3. Other (specify) ------

19. Why do you prefer this one?

    1. Lower cost ----------
    2. Goes fast ----------
    3. Comfort ----------
    4. Other (specify) ----------

20. How much do you pay for a trip on the mode you prefer ----------

21. On average how much do you spend on transport per month? ----------

22. Give details of trips by householdm members during a week (including yourself as well as school children).

Member involved	Origin of journey (Name of place)	destination of journey(place)	Purpose of journey

23. How often do you travel to the town centre?

    1. Daily ----------
    2. Twice a week ----------
    3. Once a week ----------
    4. Other (specify) -------

24. Do you encounter any problems when travelling to town centre?

    1. Yes ----------
    2. No ----------

25. If yes, what problems? ----------

---

26. When are these problems most significant? ----------

---

27. Why are they significant at this time? ----------

---

28. Do you think the problems can be solved?

1. Yes ----------

2. No ----------

29. If yes what solutions would you suggest?

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30. Are you satisfied with the public transport of this town?

1. Yes -------

2. No --------

31. If no, why are you not satisfied? ----------

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32. What improvements would you like to see with regard to public transport?

AFRICA MY AFRICA

by Thabo Moholi

LIFE WITHOUT A CAR

or, more to the point: Having to rely on taxis in Maseru

Time is running out on me — in five minutes I've got to be on the move or I'll be late for work. Out on the street I hurry, with all the dignity I can summon, to the pavement on the ohter side.

Vroooomm! I'll catch the next one. But it passes. Another passes. And another, and another . . . I start trying to wave them down — you know, those vigorous, repetitive swayings of the arm from direction sky to ground, but the only response to my antics is a burst of giggles from a group of young ladies walking in the direction of town.

It's late. I'm late. And the taxi drivers know that their customers will soon become less eager for rides. There is a certain advantage in lateness, for soon a taxi, not filled to the brim, grinds to a halt.

I'm not impressed by the roudayi (conductor) who, with exaggerated movements announces "POSONG!" But by this time, my thoughts are more concerned with my supervisor and the possibility of a black mark next to punctuality, that I can afford to ignore this self-righteous youngster.

Human cargo! Simply cargo, when one considers how packed this mode of transport is. Who's fault is it? Certainly not the people who have to be at work on time. Very few bosses have to make use of public transport in Maseru, and fewer still would understand the hassles presented by this. So, let me try to give you a glimpse of what it entails:

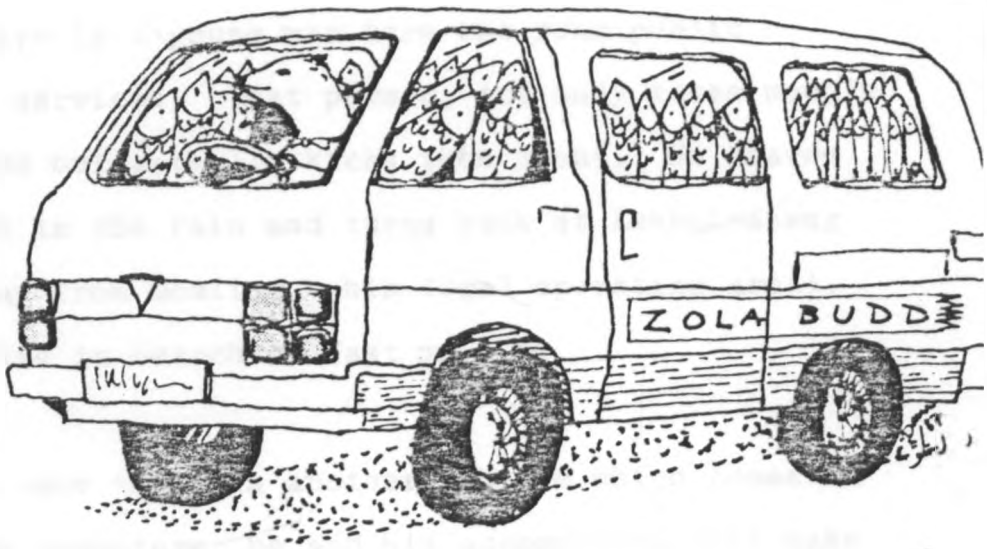
"To the back big people!" the poor conductor is screaming himself hoarse. Bodies, half seated on other bodies, become fully seated on other bodies, while an exasperated conductor struggles to get a foothold on a meagre spot inside the door. By the time he gets the door shut, the vehicle is already speeding down the road. Khan! Bamra Wee! The way some of these mini buses are packed would put a sardine packer to shame.

It is a moving hazard — looking for an accident to happen. The driver's view if often obscured by bodies perched on the dashboard, which forces him to drive with the navigation of the conductor. Sick! It sometimes happens that this good man will advise the driver to turn into a street, while there is oncoming traffic. A cacophony of protest usually saves the bus. "Oh mother!", "My children!", "My Creator!" are some of the more civilised exclamations to be heard. And the driver, as if responding to a command from on high, jams his foot on the brake. People nod involuntarily and there is a general surge forward, accompanied by a chorus of a different modulation.

Three things invariably work on the nerves of the hurrying-to-work porridge earners. The slow to pay passengers, the high denomination producers and the bottle-neck around the circle where four lanes lead into two. Here, every driver becomes a law unto himself. And, as if this is not enough of a strain, one hears "KEA THEOHA!" A passenger wanting to alight in the middle of this bottleneck. This request may have been uttered at a previous stop. Who knows? It is quite difficult to hear initial requests above the din emanating from the loudspeakers, and the converstations ranging from child rearing to international football to ancestors to the Highlands Water Scheme.

There are, though, some law-abiding taxi drivers around. I was in one, the other day, cruising along the Main North One (TY Road to the unenlightened) at an unusually reasonable speed. The load was according to the book and there were no bodies on the dashboard, when we were stopped by a traffic policeman. "What now — I'm doing everything right this morning", the driver grumbled. "Take these two ladies", the man representing the long arm of the law replied. Two well-fed mamas — the kind with a baby elephant walk, got in. "But Ntate . . ." the driver protested. "Squeeze them in, man," came the reply. That done, the officer volunteered, "They've been complaining that you don't pick them up because of my presence. I don't want them to hate me.

KEA THEOHA!



APPENDIX 2

EXTRACTS FROM READERS' PAGES OF MOELETSI OA BASOTHO NEWSPAPER

1. Vehicles that take People for granted

I stay at Qoaling. I wish to express my opinion on public transport vehicles which take people for granted.

There is a young man here who runs public transport services. That person, not only takes people for granted but actually kicks them about. He leaves passengers in the rain and turns back at Lekhaloaneng (a long way from Qoaling - his legal operating area). He does this in search of fast profits.

In case there is another vehicle which comes to assist the commuters, he and his accomplices will make a convoy of that particular vehicle on trips to and from town so that the particular vehicle does not get a chance to pick up passengers.

These days there is a Lesotho National Bus Service operating in this area. The young man took it upon himself to tell the commuters who use that bus that he will take note of them. The people of Qoaling would like the Government to add more buses to the area so that the young man can understand how he became rich.

The greatest problem is with school children. If they come late to the bus stop, they are told that the vehicle can accommodate adults only as children should come earlier in the morning. When they are early they are told to wait for the next bus which makes them late for school.

A commuter from Qoaling.

2. Overloading of vehicles

....Public transport vehicles have a tendency to overload, packing people like sacks which have no feelings of pain. I feel that the public service vehicle standards have deteriorated so much so that there is need to proclaim a state of emergency on them.

I think that this deterioration is ubiquitous throughout the country, but the Roma route is the worst of them all.

A vehicle departs from the Maseru Central bus terminus already full but will stop at each and every bus stop until it reaches its destination. By the time it reaches its destination there will be more standing passengers than the seated ones.

Many people used to dislike Lesotho National Bus Services operations arguing that they were too slow and stopped at every bus stop thus delaying them considerably. However at present things are worse since there are delays accompanied by discomfort while travelling. The worst hit groups are the workers and trainees. Somebody can enter a vehicle at the Central bus terminus from 9.00 a.m. but the vehicle will not leave until 10.00 a.m. thus making them late for work and conferences.

I appeal to the police to do spot checks on the road to Roma to witness this absolute deterioration of public transport services.