15 Year Review of Public Transport in South Africa with emphasis on metropolitan areas

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Note: This paper was commissioned by The Presidency as an input into the fifteen year review process. The views expressed are those of the author/s

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'Following the review of 10 years of democratic governance and the contribution that the transport sector has made during this period, as well as the priorities identified by the Cabinet, there is a recognition that there has been very little improvement in public transport services to passengers, that the system has not performed at an optimal level, and that public transport users have not benefited significantly from the various policy initiatives undertaken by Government.' - Department of Transport (2005c) 'The Public Transport Challenge in South Africa', Discussion Document for the Transport Lekgotla, 8-9 April 2005

1 Introduction

This paper seeks to assess the achievements within the Public Transport sector – with an emphasis on public transport in the metropolitan areas – as part of a wider review of achievements in the 15 years since the advent of democracy in South Africa.

Following the introduction (section one), section two of the paper assesses public transport mainly from the perspective of the user. It provides information on public transport use, including the split between different transport modes, as well as affordability and satisfaction levels. Where information is available it seeks to identify key trends over time.

Section Three examines government policies and legislation, describing and analyzing the key direction government sought to adopt in addressing public transport needs. This section focuses mainly on the White Paper (1996), the key policy document that followed this known as 'Moving South Africa', the National Land Transportation Transition Act, and the policy direction provided in late 2006 and early 2007 around the establishment of Integrated Mass Rapid Public Transport Networks.

The fourth section describes and assesses some of the major public transport initiatives including taxi recapitalization, the Gautrain, the restructuring of bus contracts, developments in commuter rail, and the latest initiatives around creating 'bus rapid transit' (BRT) systems in the larger cities.

The fifth section examines some institutional and financial issues.

As will be evident from this paper the achievements in public transport have been disappointing. This under-achievement is not attributable so much to inappropriate policies; the important policy documents are founded on sound principles and approaches, and legislation is largely in line with this. Indeed, the White Paper of 1996 remains – more than a decade later – a highly cogent and sophisticated document. Many of its fundamental tenets are in line with current international best practice as developed in many countries around the world over the last decade, and the newest ideas in South Africa on the creation of Integrated Mass Rapid Public Transit Networks are largely consistent with it. The legislation was well crafted and provided detailed mechanisms for realizing policy. However, implementation has been poor. Key directions and intentions identified as early as 1995 have failed to materialize in a way that noticeably improves the experience of public transport users. Indeed, there is evidence of a worsening of the situation. The main beneficiaries since 1994 have been the significant but, in relative terms, small numbers of people who have become car owners and moved out of the public transport system.

Two key factors underlie this failure. Firstly, there has been an absence within the public sector of the kinds of skills needed to actually implement the substantial changes required. The new policies demand an ability to direct a variety of private operators towards new business and operational practices. This, in turn requires a detailed sense of how the public transport market works, how it is envisaged to work under different arrangements, and how to use legal, financial and planning instruments to change behaviour. The contested nature of the industry, the often volatile stakeholders and the centrality of public transport to large numbers of people's daily lives makes this particularly challenging.

But an even more fundamental factor has been the absence of a clear and appropriate assignment of responsibility across the three spheres of government. In any complex area, whilst co-operation amongst a variety of stakeholders is needed, the starting point for effective implementation is clear assignment of accountability to the agent best placed to implement. Yet, although city governments should, for both constitutional and practical reasons, be the key role players in addressing metropolitan and urban public transport – something recognized and given significant prominence in the 1996 White Paper – power and responsibility has, in fact, been distributed haphazardly across all three spheres of government. The reason for this lies not so much in the Constitution and legislation, which allows for a much clearer assignment of responsibility than has in fact taken place, but in a failure at national level since around 2000 to grasp the importance of clear devolution of responsibility to the cities, together with the financial resources to implement. Marshalling resources and focusing decision making is almost impossible if there is no clarity on who is supposed to be doing it.

The resulting absence amongst cities of the ability to drive the public transport agenda from the perspective of firstly, local citizen needs and, secondly, the coherent organization of urban space, has led to the dominance of the agenda by large supply side projects, driven by other spheres of government, and which do not represent an appropriate prioritization of resources. Allocation to public transport services from national government is increasing rapidly, from R4.7 billion in 2004/05 to a projected R16.2 billion in 2010/11. However, while total public transport expenditure by national government for the five year period from 2006/07 to 2010/11 – including all capital and operating subsidies – is estimated at R70.1 billion, the capital costs of Gautrain alone are estimated at R27.7 billion. The most optimistic estimates for Gautrain passenger volumes are 100000 trips per day, whereas, across the country the latest estimate of public transport trips per day is approximately 8-9 million trips a day[1].

The reasons for the failure to devolve responsibility effectively to the cities lie somewhat outside the scope of this document, and are not confined to the public transport arena alone; but there is some discussion of the issue in section five.

Recent developments do, however, give some grounds for optimism. In particular the developments around the implementation of bus rapid transit systems in four of the largest cities, driven by the cities themselves, appear finally to represent possibly the

[1] In March 2008, as this review was being completed national cabinet reportedly approved an R8.6 billion Moloto Corridor project which entails building a high speed rail link between Tshwane and the former KwaNdebele homeland. This route, which is about 118 kms in length, currently carries approximately 30000 subsidised bus passengers per day. There is relatively little economic activity along the corridor.

first serious steps towards addressing urban public transport needs. This has taken place as a result of some cities beginning to take greater initiative in this area in conjunction with the establishment by National Treasury of a new grant funding channel directly to the cities. The imperatives of preparation for the World Cup have provided further impetus. However the success of these developments is by no means guaranteed. The actual support given in the February 2008 budget for the three year MTEF cycle will require major contributions from the cities embarking on this initiative. This is a major new area of spending which will have to be added to the municipalities' other very demanding spending requirements. The different cities appear to have been given significantly different levels of financial support, and it would appear that in some cases the required municipal input will be unaffordable.

Public transport in South Africa is now at a very critical stage. Key cities are currently developing momentum and marshalling resources to implement new and potentially very successful public transport initiatives. But although South African metropolitan governments are large institutions[2], the risks are significant in relation to their scale. It is of utmost importance that this momentum is supported by national government in the coming months in terms of financial resources and the creation of an environment that fully recognizes the leading role of the cities in the provision of city public transport.

[2] The Cities of Johannesburg, Cape Town and eThekwini are each, in financial terms, similar in size to SAA, and larger than three of the provinces.

2 Current public transport services and trends

In 2003 the national Department of Transport published the First South African National Household Travel Survey (Department of Transport (2003)). This was based on a representative sample of approximately 50000 households. The impetus for doing the survey emerged from the research that previously been done in preparing Moving South Africa (Department of Transport 1999), and which used original survey research, combined with established databases (AMPS and the October Household Survey).

2.1 Transport patterns by mode and settlement type

The survey estimated the total national population at 46 401 000. The following table shows the number and proportion of household members who made one or more trips on weekdays by settlement type (in 2001).

Table 2-1: Proportion and number of household members who made one or more trips on weekdays by settlement type

Settlement type	% of people making a trip	Number making a trip
Metropolitan	80.5%	12 410 000
Urban	78.7%	9 417 000
Rural	70.4%	13 376 000

Source: Department of Transport (2003)

The survey estimated the number of commuters travelling to work by all modes at 10 million, with the breakdown for commuters per settlement type shown in the next table. As might be expected, commuting is a key feature of metropolitan areas in particular. Note that the actual number of trips is approximately double the number of commuters; thus, nationally, there were approximately 20 million commuter trips per day in 2003. Note, also that these exclude trips to schools and other educational institutions, which are estimated at about 15 million per day.

Table 2-2: Number of commuters across settlement types

Commuters in metropolitan areas	4.8 million
Commuters in urban areas	3.0 million
Commuters in rural settlements	2.2 million

Source: Department of Transport (2003)

The following table provides a breakdown of the extent of weekday trip making by age of household members.

Table 2-3: Weekday trip making by age group of household member

Age	% of people making a trip	No making a trip
0-6 years	52.4	3 281 000
7-14 years	92.4	7 638 000
15-19 years	86.8	4 571 000
20-25 years	76.5	3 979 000
26-40 years	78.5	8 301 000
41-65 years	73.5	6 381 000

> 65 years	49.6	1 035 000

Source: Department of Transport (2003)

The table indicates the high number and proportion of households in the school going 7-19 age cohort. However, even amongst the oldest and youngest age cohorts approximately half the population makes at least one trip on one weekday. The survey indicates that the key reasons of undertaking weekday trips were to attend schools and other educational institutions, to go shopping, to visit friends and relatives, or to go to work. In rural areas education is the main trip purpose, and this is the case in urban areas, too. Only in metropolitan areas did trips to work predominate.

The following table shows the breakdown in transport modes used by all household members in the week (7 days) prior to survey day - by settlement type. It shows that the most commonly used mode of motorized transport across the country was the minibus taxi.

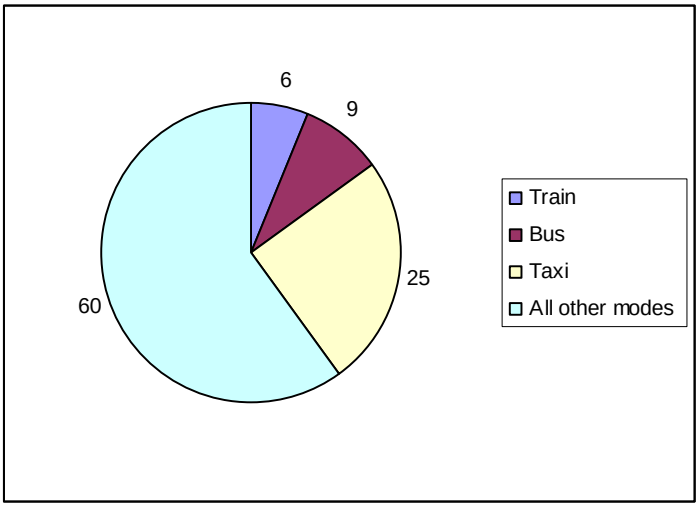
Table 2-4: Motorised transport modes used by all household members in the week (7 days) prior to survey day, by settlement type.

Settlement type	Train	Bus	Metered Taxi	Minibus taxi	Sedan taxi	Bakkie taxi	Car
Metropolitan	5.9	6.3	1.8	29.3	0.8	1.2	24.5
Urban	1.0	3.9	0.9	24.4	1.4	1.2	19.8
Rural	0.3	5.7	0.7	14.0	0.5	2.9	5.0
South Africa	2.3	5.5	1.1	21.7	0.8	1.9	15.3

Source: Department of Transport (2003)

The overall modal split for travel to work is shown in the following chart.

Figure 2.1: Passengers transported to work by trains, buses and taxis



The following table shows the modal share for work trips by settlement types.

Table 2-5: Modes used to travel to work by settlement type

Settlement type	Percentage of commuters					
	Train	Bus	Taxi	Car	Walk/cycle	Other
Metropolitan	11.2	8.1	28.4	41.0	9.1	2.2
Urban	1.7	6.2	27.0	35.5	25.6	4.1
Rural	0.5	11.6	15.1	15.8	52.6	4.4

There is a marked correlation between income levels and mode use, as shown in the following diagram.

Table 2-6: Mode use for commuting by Income Group

Income Group	Main mode to work - % of commuters					
	Train	Bus	Taxi	Car	Walk/cycle	Other
Up to R500	3.0	7.0	20.5	4.4	57.9	7.2
R501 – R1000	6.6	10.5	29.0	6.6	39.5	7.8
R1001 – R 2000	10.4	12.4	37.9	13.8	19.4	6.2
R2001 – R3000	8.9	11.1	31.3	28.5	13.7	6.4
> R3000	2.4	5.5	15.7	65.4	8.4	2.6
South Africa	6.2	9.2	26.6	27.7	24.6	5.7

Moving South Africa, which interpreted available data to develop strategy, but predated the NHTS, divided urban passengers into six customer segments, each with different needs from the urban transport system. It referred to these as

a) The **Strider** segment, which prefers to walk or cycle as the most convenient way to travel, and accounted for a significant number – 5.4 million – of the urban population. This group was viewed as generally satisfied with dimensions of travel time, affordability, and availability since, by definition, they enjoyed good low-cost access to their preferred destinations.

b) The **Stranded** segment, which are most poorly served by public transport, lacking affordable basic access to motorised transport, accounted for 2.8 million citizens, or 13% of the urban population It was expected to grow by 28% between 1999 and 2020 if nothing was done to address their needs. Distances for the stranded tend to be long: 67% live in townships an average of 20km from CBDs or other work locations. Even on formal modes like bus and commuter rail, these distances cause high prices, which are unaffordable to this segment. The stranded who live in closer areas (suburbs, informal settlements, or inner cities) generally have access only to taxi, which is the highest priced mode.

c) The **Survival** passengers, can afford to use public transport, but are 'captive' to the least expensive option, and accounted for 4.1 million people, or 19% of the urban population. Over 70% of this group spends above 10% of their household income, spends more time traveling than they would like, and are highly dissatisfied with both service and cost.

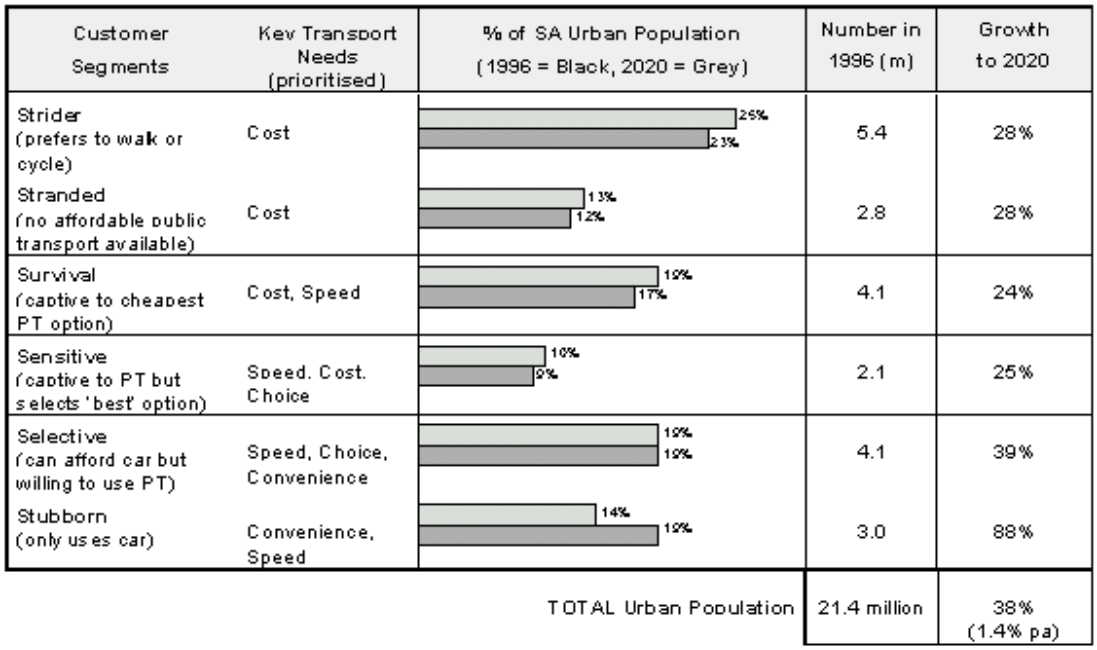
d) The **Sensitive** segment is still captive to public transport but has enough income that members can select the best transport option. This is the smallest segment of urban customers, including only 2.1 million customers, or about 10% of the urban population.

e) The **Selective** segment, can afford a car but is willing to use public transport if it meets their primary requirements of higher speed, and greater choice and convenience. In 1999 it accounted for 4.1 million people, or 19% of the urban population. It was expected to grow 39% between 1998 and 2020. This was a critical segment for transport strategy because of its ability to afford cars. They will only stay with public transport if it offers sufficient convenience and choice to make it attractive.

f) The **Stubborn** customers will only use cars, and represented 3 million people, or 14% of the urban population in 1999. Their car dependence is enabled by the excellent urban road network in cities and adjacent suburbs where the stubborn residents tend to live.This group was expected to grow significantly between 1998 and 2020, creating significant challenges for urban areas in terms of road infrastructure and congestion.

The following diagram summarises the analysis.

Figure 2.2: Analysis of urban transport users and trends

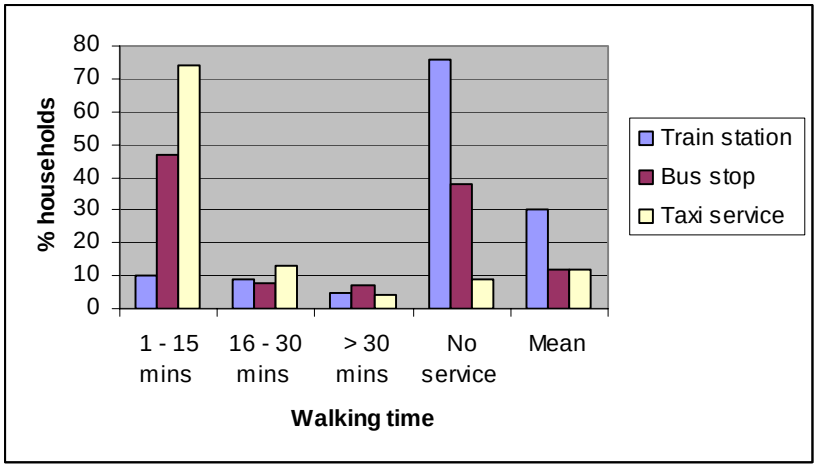


Note: All customer segments rated safety as a key transport need
Source: MSA Survey and Analysis. Forecasts are based on MSA Analysis using WEFA macroeconomic forecasts

2.2 Accessibility

The following diagram shows the accessibility of different modes of public transport to households. From this it can be seen that at the time of the survey taxis were available to all but approximately 9% of households, while, at the other extreme, 76% of households had no access at all to rail. Accessibility of bus services lay somewhere between these two extremes.

Figure 2.3: Household access to public transport



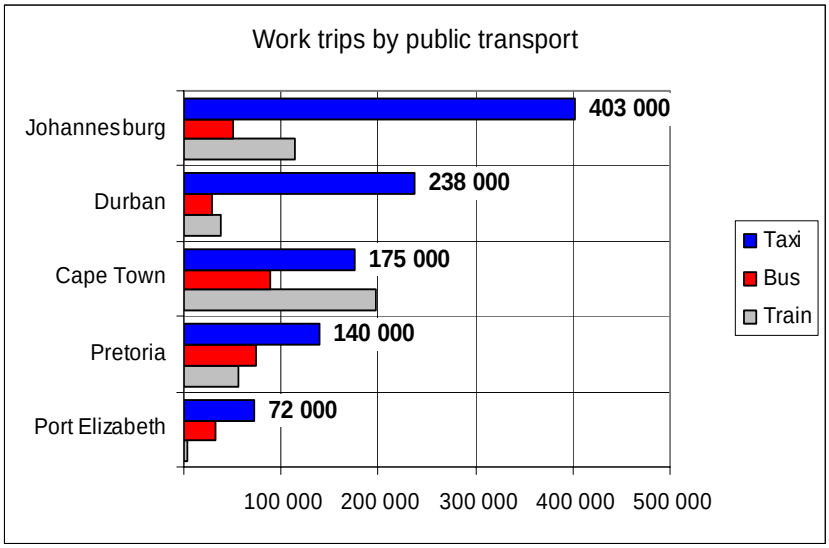
Source: Department of Transport (2003)

In terms of accessibility to specific services, food shops were the most accessible of services analysed, with 81.6% of households being between 1 and 15 minutes travel time from such facilities.

2.3 Public transport use in five large cities

The following chart shows the modal split in public transport use across five large cities. Although taxis are generally the most commonly used mode, Cape Town represents an exception with rail conveying the majority of public transport users in 2003. J W M Cameron & M C Lombard (2006) note that on average in these five cities public transport carried 53% of all trips to work and 27% of all peak trips by all modes.

Figure 2.4: Work trips by public transport in 5 major cities



Source: J W M Cameron & M C Lombard (2006)

2.4 Satisfaction levels

The following tables and figures show levels of satisfaction with transport.

Table 2-7: Absence of transport problems by settlement type

Type of area	% of households
Metropolitan	27%
Urban	41%
Rural	18%
South Africa	28%

Source: Department of Transport (2003)

The following issues stood out in terms of problems mentioned by transport users:

- Almost half of the households in South Africa said that the main transport problem was that public transport was either not available or too far away;
- One third of households reported that safety from accidents and bad driver behaviour was the most serious transport problem;
- Cost was the most serious problem for one fifth of households
- Exposure to crime was identified as a key problem in the Western Cape

Almost half (48%) of the minibus-taxi passengers, 42% of train passengers and a third of bus passengers were dissatisfied with the overall quality of service. The following table shows the attributes which were the main sources of dissatisfaction.

Table 2-8: Percentage of users dissatisfied by key attributes across modes

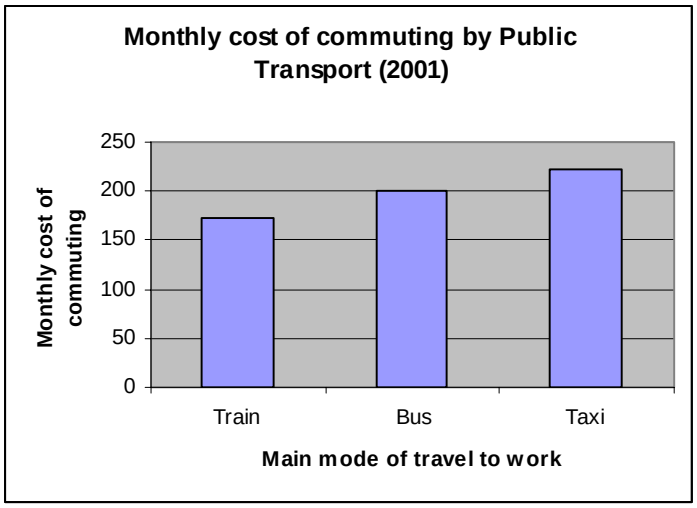
Mode	Source of dissatisfaction	% of users dissatisfied
Trains	Crowding	71
	Security on walk to stations	64
	Security on trains	63
Buses	Lack of facilities at bus stops	74
	Crowding on buses	54
	Low frequency off-peak	51
Minibus-taxis	Safety from taxi accidents	67
	Lack of facilities at ranks	64
	Lack of roadworthiness of vehicles	60

Source: Department of Transport (2003)

2.5 Expenditure on public transport and affordability

The most serious concerns about the cost of transport are related to the cost of travel to work, especially for low income workers. The following figure shows the relative cost of commuting per month in 2001, when the survey was done.

Figure 2.5: Monthly cost of commuting by mode (2001)



Source: Department of Transport (2003)

The following table shows the percentage of household income spent on public transport in relation to monthly household income.

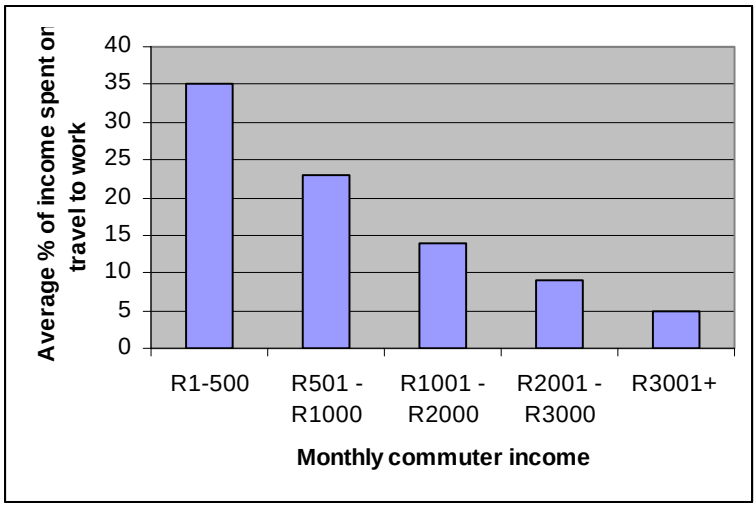
Table 2-9: Percentage of household income spent on public transport in relation to monthly household income

Monthly household income (2001)	Percentage of households				
	0%	1-5%	6-10%	11-20%	>20%
Up to R500	20.8	0.0	24.5	5.8	49.0
R501 – R1000	14.1	33.5	20.9	13.2	18.3
R1001 – R3000	15.1	28.8	24.0	22.0	10.1
R3001 – R6000	32.5	35.4	18.6	10.7	2.8
> R6000	68.8	23.8	5.4	1.9	0.0

Source: Department of Transport (2003)

A comparison of travel costs to work with income earned from the work show that commuters in the poorest segment spend on average more than a third of their earnings on traveling to work.

Figure 2.6: Average percentage of commuter income spent on travel to work

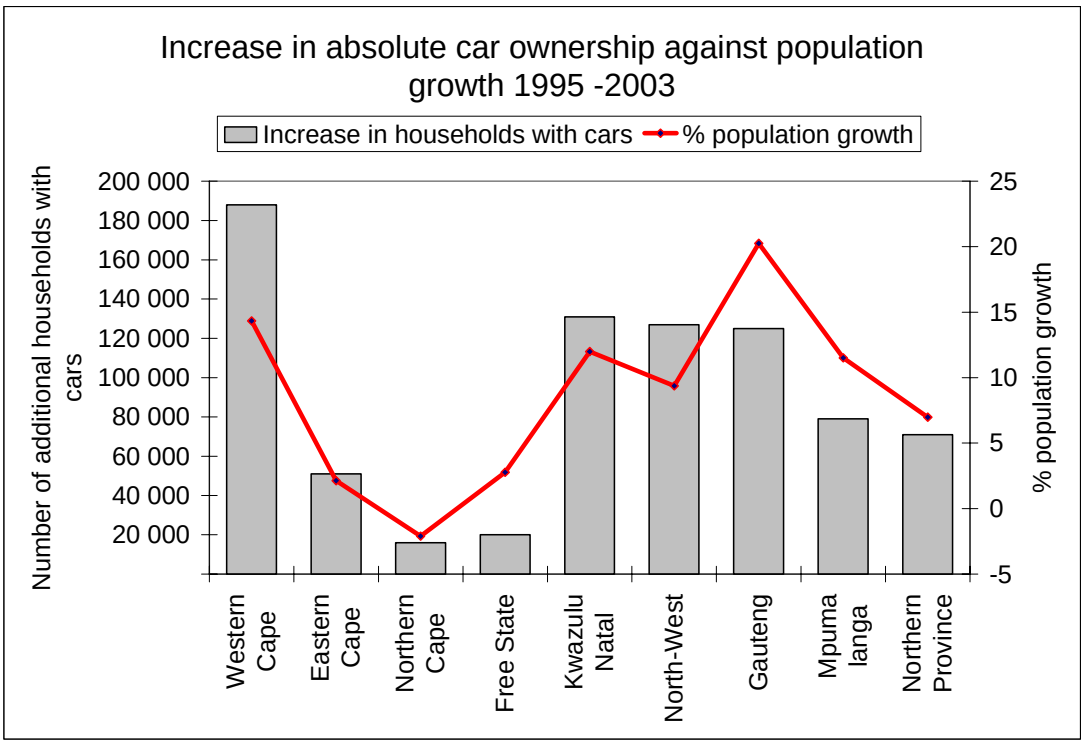


Buses and trains are subsidized yet the majority of passengers are transported by taxis, which are not subsidized.

2.6 Growth in motor car use

In 2003 74% of South Africans were captive to public and non motorised transport as they lacked access to a car. Of the nearly 10 million workers who commuted to work, 4 million workers used public transport and 2.5 million workers walked. Even in metropolitan areas 2.3 million workers (49% of workers) used public transport compared to the 1.85 million workers (39.5%) who used a car.

There is, however, quite strong growth in car ownership. The following diagram tracks growth in motor car ownership against population growth across the provinces.



Source: DBSA 2005

The growth of private vehicles is estimated at 2% per annum. Car use imposes huge costs on urban infrastructure and, once congestion develops, on travel time. An illustration of this is the fact that the number of morning commuters along the Ben Schoeman Highway is fewer than the number of people along the northern Tshwane R80 Mabopane route through the gap in the mountain. Yet there is far greater demand for expensive road space between Johannesburg and Pretoria, and far greater congestion, because of the greater use of private vehicles.

Table 2-10: Comparison of Tshwane commuters with number of vehicles in the morning peak on key routes

Route	*Commuters per 3 hour morning peak*	*Vehicles per 3 hour morning peak*	*Proportion on public transport*
R80 (Mabopane/Pretoria)	61600	12600	66.3%
N1 South (Pretoria/Johannesburg)	36400	18200	21.2%
R21	22100	14000	16.4%
N14	30900	15900	26.5%

Source: City of Tshwane

Congestion along the Johannesburg/Pretoria corridor has led to investment in Gautrain, which will be discussed in section 4. However, in the absence of a more comprehensive and efficient public transport network it is unlikely that Gautrain will reduce vehicle use on this corridor to any substantial degree.

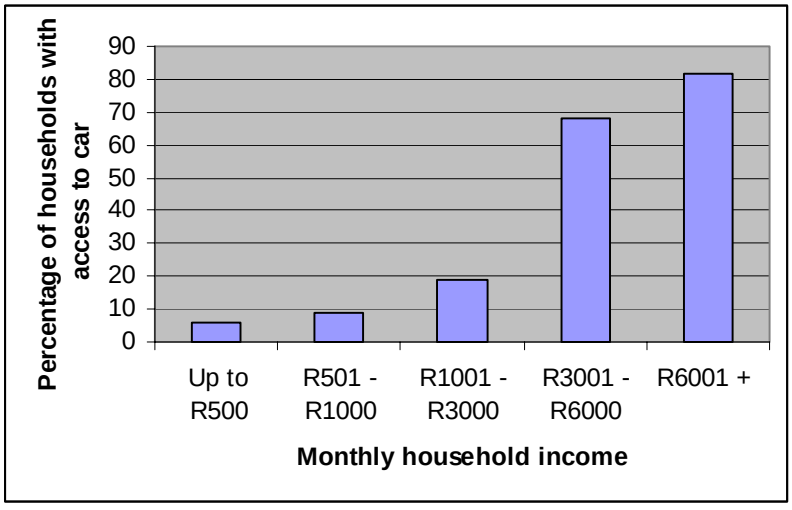
In the 1980's the standard levels of parking provision per 100 square meters of commercial space was 1 parking bay. This has now climbed to 4, with property developers forced to meet this demand if their properties are to be competitive. Once the figure reaches approximately 5 bays per 100 square meters developments will require more floor space for parking than for actual commercial use.

Where the management of space and movement across space within cities is designed primarily around private motor vehicles, costs rise significantly. As motor vehicle use increases the demand for road infrastructure increases, yet is seldom able to cope with the increasing congestion. At the same time, the development of car determined settlement patterns disperses economic activity across a much wider area, making it much more costly to provide regular and convenient public transport services.

Cabinet has expressed concern about the implications of this, with a memorandum in 2005 stating that 'unless this trend is kept in check, the cost of congestion following increased traffic volumes on the roads, especially in the metropolitan centres, will be huge. This will be in the form of increased investments on roads, inefficient operations of cities and pollution of the environment'.

Access to motor vehicles is spread unevenly across income and settlement type. The following figure shows the percentage of households with access to a motor car across different income levels.

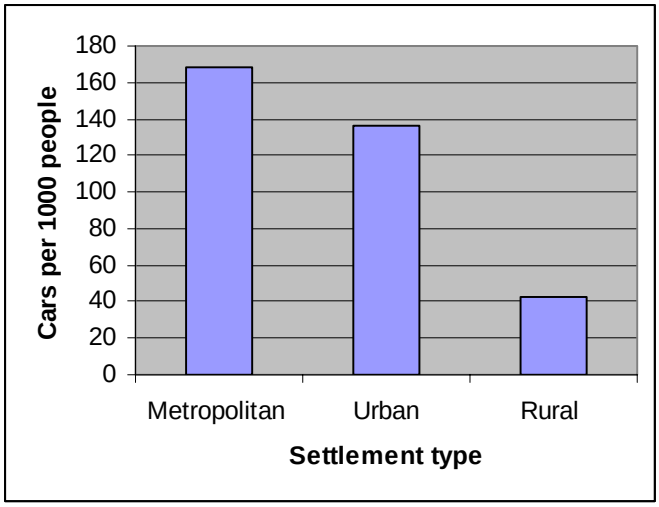
Figure 2.7: Percentage of households with access to car by household income band



Source: Department of Transport (2003)

The following figure shows the number of cars per 1000 people by settlement type at the time of the survey.

Figure 2.8: Cars per 1000 people by settlement type

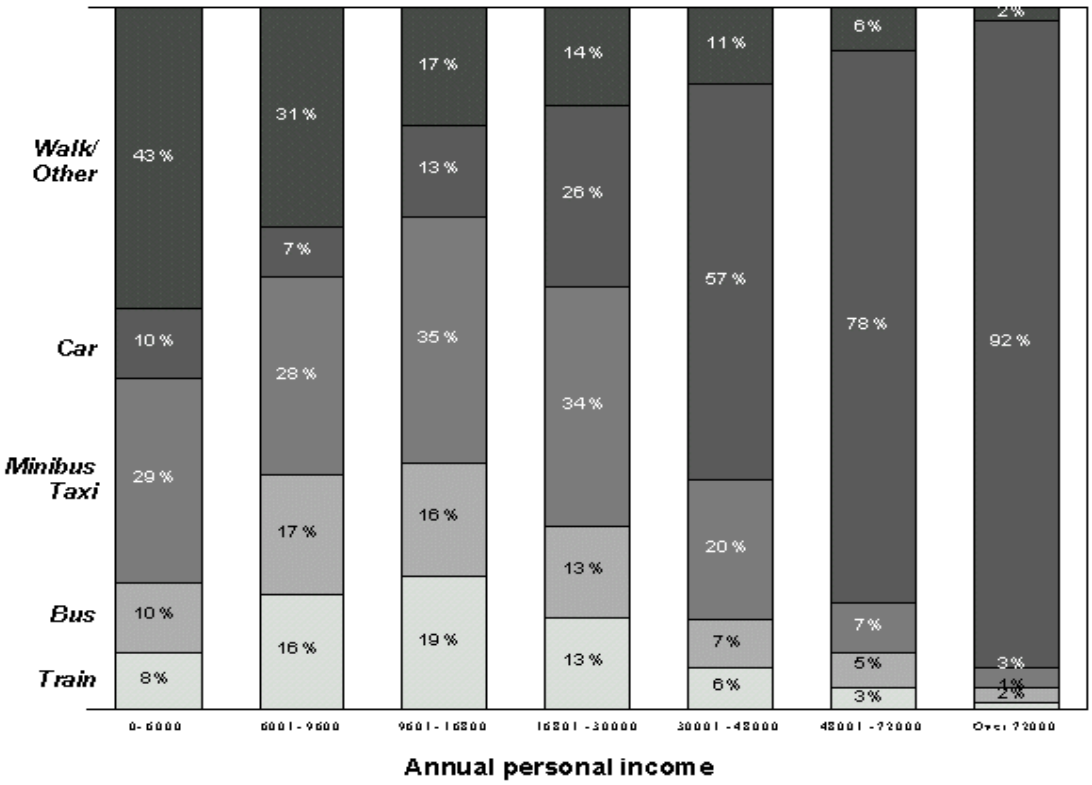


Source: Department of Transport (2003)

Saturation levels are regarded to be about 450 cars per 1000 people. At 108 for South Africa as a whole in 2003 the scope for further rises in car ownership is large, and the number of households with access to a car has climbed significantly in recent years.

Several factors are fueling the growing car dependence, one of which is the relatively low income levels at which South Africans begin to use cars as their primary mode. MSA research indicated that once household income rose above R30,000 per annum (1999 prices), car use began to dominate. The result is a situation with a much higher than average vehicle population per capita among middle income groups, compared to other developing countries.

Figure 2.9: Percent Modal Choice by Income Band (National Commuters)



Source: CSS 1995 October HouseholdSurvey, DOT SUMS Database, SARCC

2.7 Key performance indicators

The Department of Transport developed a number of performance indicators which flowed from the 1996 White Paper. The following table shows performance against targets in 2003 when the last comprehensive travel survey was done.

Table 2-11: Key performance indicators

KPI no	KPI	KPI Target	Status for RSA as a whole	% not within target	Number not within target
1	Travel time to work	Less than 1 hour	Average 43 mins	18% of all commuters	1.7 million commuters
2	Travel time for work trips by public transport	Less than 1 hour	Average 59 mins	32% of public transport commuters	1.3 million public transport commuters
3	Travel time for educational trips	Not specified (suggest less than 31 mins)	Average 31 mins	30% longer than 30 mins; 7% longer than 60 mins	4.7 million longer than 30 mins; 1.1 million longer than 60 mins
4	Percentage of motorized trips to work by	80%	52%		

	public transport				
5	Metropolitan and urban walking times to trains	15 mins (about 1km)	28 min where train available	87% of households do not have access within 15 mins	6.5 million households do not have access within 15 mins
6	Metropolitan and urban walking times to buses	15 mins (about 1km)	10 min where bus available	52% of households do not have access within 15 mins	4.1 million households do not have access within 15 mins
7	Metropolitan and urban walking times to taxis	15 mins (about 1km)	10 min where taxi available	18% of households do not have access within 15 mins	1.4 million households do not have access within 15 mins
8	Percentage of households spending more than 10% of income on public transport	Maximum of 10%		30% of households spend more than 10% of income on public transport	3.7 million households

3 Public transport policies and legislation

This section summarises public transport policies since 1994. As will be evident, there have been no significant shifts in intention since the White Paper, which was published in 1996, although the latest initiatives around the creation of public transport networks do require a much more pro-active management of public transport route networks by the public sector, while relying on the private sector for the actual provision of the services.

3.1 White Paper 1996

The process to draw up the White Paper on National Transport Policy began in 1995, with a set of consultations resulting in a Green Paper in March 1996. The transport policy environment which this White Paper was responding to had been developed in the mid 1980's. This had seen significant deregulation of the taxi industry, which prior to that time had operated under tight restrictions as government attempted to shield the subsidized bus industry from competition.

The new government had recognized transport as one of its five main priority areas for socio-economic development, and the 1996 White Paper re-iterated this. The process of drawing up policy on public transport took close cognizance of the final report of the National Taxi Task Team, which had been formed in the early 1990's to address conflicts and challenges in the taxi industry. It also responded to the Task Team on the Restructuring of State Owned Enterprises.

The White Paper dealt with all aspects of transport and articulated the vision for transport thus:

Provide safe, reliable, effective, efficient, and fully integrated transport operations and infrastructure which will best meet the needs of freight and passenger customers at improving levels of service and cost in a fashion which supports government strategies for economic and social development whilst being environmentally and economically sustainable.

The strategic objectives for public transport included:

- To promote the use of public transport over private car travel, with the goal of achieving a ratio of 80:20 between public transport and private car usage

- To ensure that public transport is affordable, with commuters spending less than about 10 percent of disposable income on transport

The following sections summarise the priorities and key themes which emerged from the White Paper.

3.1.1 Policy and action based on sound information

The White Paper stressed the need for comprehensive information as a basis for developing policy and strategy. A key objective was to focus on customer needs, which were to be identified through comprehensive customer information. The information gathering undertaken by Moving South Africa, and the National Household Travel Survey subsequent to the White Paper flowed directly from this.

3.1.2 Integration and intermodalism

The White Paper highlighted two key thrusts to achieve the goals of improved customer oriented transport services, namely the promotion of *integration* and *inter-modalism.*

Integration encompassed ‘modal, spatial, institutional and planning integration’, with the policy seeking to integrate government departments, the private sector and consumers into the process of developing solutions to shortcomings. By ‘inter-modalism’ the White Paper sought to create an environment which encouraged use of the most appropriate mode of transport for any particular purpose. This was to be achieved not through regulation, but by creating the right incentives so that each mode could compete on the basis of its inherent strengths.

These thrusts translated into strategic objectives such as ensuring that transport modes ‘are integrated in respect of scheduling, routes and ticketing systems’.

3.1.3 Role of government

The White Paper placed significant focus on defining the role of government in the transport sector stating:

In the past, Government's dominant role has been as a regulator of bureaucratic detail, a provider of infrastructure, and a transport operator, but it has been weak in policy formulation and in strategic planning. Government intends to reverse this legacy, and to focus on policy and strategy formulation which are its prime role, and substantive regulation which is its responsibility, with a reduced direct involvement in operations and in the provision of infrastructure and services, to allow for a more competitive environment.

The Department of Transport would play a leading role in co-ordinating transport policy, and developing and implementing strategies, which it would do in close co-operation with other government departments, other levels of government, and other stakeholders. It highlighted the need for much closer co-operation between transport and land-use planning.

It took the view that elements of Government's activities in service provision and operations could be undertaken more efficiently and cost-effectively in specialised environments, giving higher levels of service to consumers which would be paid for by direct or indirect user charges. This could be done through professionally managed arms-length agencies functioning according to commercial principles, with government retaining the responsibility of ensuring that minimum standards are maintained, and that essential services are provided. This was subsequently effected through the creation of bodies such as the National Roads Agency and Airports Company of South Africa (ACSA).

The strategic value of state ownership of the various types of infrastructure was to be re-assessed. The White Paper argued that in certain instances, it may be undesirable for the roles of provider and regulator (player and referee) to be embodied in a single institution. In these instances ownership and regulation of transport infrastructure should be separated, whether state owned or privatised.

3.1.4 Regulated competition

The White Paper argued that efficiency had to be enhanced, and this could best be achieved 'by ensuring competition in the provision of infrastructure and operations'. But this did not mean leaving the provision of public transport purely to market forces. As the White Paper puts it, 'government proposes a form of regulated competition, which requires that operators function in a competitive environment, but in a manner which complies with the objectives of Government'. Government objectives were to be defined through the mechanism of a passenger transport plan drawn up by the relevant authority. Indeed, an important theme of the White Paper, supported by the organised taxi industry, was the need to tighten regulation over the minibus taxi industry.

In line with its new approach to competition, the White Paper defined a new terminology for regulatory approaches. The strategic objective was to 'promote and implement a system of regulated competition for public transport routes or networks based on 'permissions[3]' or 'tendered contracts'. The networks were to be defined on the basis of 'passenger transport plans'.

Where public transport services required government funding support, for example for welfare, or traffic management, or strategic reasons, competition would take the form of 'tendered contracts' (competition on routes or networks would then be precluded). But where public transport could be rendered as profitable commercial services, on-the-road competition would be encouraged, with competition being regulated through the issuing of 'permissions', subsequently referred to as 'operating licences' based on capacity management in terms of the supply policies of the provincial or local passenger transport plans. Rail operations would be based on operating and maintenance 'concessions', awarded by transport authorities, based on a transport plan with ownership of infrastructure and rolling stock being retained by transport authorities.

Successful tenderers, when awarded a contract, would automatically be awarded a licence to operate. Licences for unsubsidised services would also be awarded only to registered operators on the basis of a passenger transport plan. Contracts would only be awarded by the transport authority to a recognised route entity, co-operative, association, close corporation, company or a legal person, and should be based on a passenger transport plan.

The objective was to shift away from monopolistic situations, and away from systems which target commuters only towards one which benefits all passengers.

The main implications of regulated competition for the three key public transport modes was set out in the White Paper and is reproduced *verbatim* below. It is clear that in developing a new approach the needs of the existing service providers, especially the minibus taxi industry had to be carefully accommodated without allowing the principles of the new system to be compromised.

Minibus taxis: regulated competition will mean that the minibus taxi industry will have to be formalised and measures introduced to enhance its economic viability. Minibus-

[3] 'Operator permits' were to be replaced with 'permissions (authorities) issued in terms of approved passenger transport plans'.

taxis could form legally registered businesses, for example, co-operatives or companies, or be registered associations. These will have to operate in terms of permissions to operate on a route or network. Permissions will be granted by the provincial permit board. The number of permissions granted on a route or network will be determined by need (demand) estimated in terms of the passenger transport plan. Minibus-taxi businesses may also compete for the awarding of contracts by transport authorities. As far as possible in terms of the transport plan, the determination of routes/networks will be based on existing operations (including both legal and pirate operators). Financial and technical assistance will be offered to minibus-taxis to enable them to obtain permissions and/or contracts and to improve their economic viability. Minibus-taxi businesses may apply for permissions and/or contracts either on their own or in partnership with bus operators.

Bus operations: may obtain permission to operate from the provincial permit board. They may also compete for tendered contracts which will be awarded by a transport authority. Contracts will be awarded only to bus companies which operate on business principles with ringfencing of finances and no unfair access to financial resources except on a commercial basis, operate as independent legal entities, and are liable for taxation. Existing permits on subsidised routes will have to be translated into interim contracts for a period before competing for tendered contracts.

Rail passenger transport: the national transport authority will own the commuter rail infrastructure, rolling stock and land associated with rail reserves until the provincial or metropolitan transport authorities are in a position to take over this responsibility. Steps will be taken to utilise rail reserves in accordance with transport plans and spatial development frameworks. Operating and maintenance concessions will then be awarded by the transport authorities, initially at national, and later at provincial or metropolitan level. The current deficit financing system will be abolished and replaced with a concession system which will ensure more efficient and effective use of funds. Concessioning the operation of rail services on a competitive basis (whether to the public or private sector) will help cut fare evasion and improve services, because the money made or lost will impact directly on the operator. The transport authorities will determine fare levels.

(White Paper 1996)

3.1.5 Financing

The White Paper argued that ‘economic’ infrastructure and operations, which were ones which provided a measurable economic or financial return should be operated on commercial principles and not subsidized. These included ‘financially viable passenger transport operations’

There were, however, ‘elements of infrastructure and operations which cannot or should not be paid for by the user, but which provide social benefits’. Government would contribute to the financing of these socially necessary services in a transparent manner. This could be in the form of appropriations, grants or subsidies to achieve an equitable distribution of resources, or as an incentive to provide services which are desirable in a broader social context, such as to promote public transport. In the longer term

Government would seek a reduction in the cost to the state of the subsidisation of transport operations, predicated on a more effective and efficient public transport system being developed.

The White Paper argued that there was a need for 'sustainable and dedicated funding for passenger transport infrastructure, operations, and law enforcement'. Where appropriate, infrastructure would be funded through user charges and/or investments by the private sector. However, the transport sector would seek increased appropriations for transport infrastructure from national government's general revenue, and would also seek to develop new sources for financing. To augment funds transferred from national level, fiscal powers for provincial and local governments in respect of their functional responsibilities would be sought.

To encourage self-sustainability and replicability the users of urban transport facilities should pay for all or most of the costs incurred within the limits of affordability. Where subsidies are required for welfare considerations or to promote public transport they would be applied through mechanisms which provide incentives for efficiency.

Transport authorities, in consultation with communities, were to define passenger transport needs at affordable fare levels, identify and target recipients of mobility support, and on this basis define routes and/or networks for tendered contracts.

3.1.6 Transport and urban form

The White Paper was emphatic that South Africa's public transport challenges would never be affectively addressed without addressing land use patterns and urban form, stating that

Land use and transport development are not integrated owing to a fragmentation of responsibilities for the administration, planning and regulation of the various aspects of land use, infrastructure, operations and regulations. This fragmentation and the legacy of apartheid policies has led to low density development, spatially dislocated settlements and urban sprawl, resulting in inordinately long commuting distances and times, low occupancy levels, high transport costs and low cost recovery.

Thus the following spatial development principles were agreed:

- land use development proposals must be subject to a land use/transport policy framework within an agreed development planning process;
- the effective functioning of cities and industrial areas must be enhanced through integrated planning of land use, transport infrastructure, transport operations and bulk services.

Required actions included 'regulation of land use development at local level so that development approval is subject to conformity with integrated land use/transport plans'; and 'containment of urban sprawl and suburbanisation beyond the urban limits' which would be addressed through provincial spatial development plans. Unrestrained car usage and subsidised car parking would be 'contained through the application of policy

instruments which could include strict parking policies, access restrictions for private cars, higher licence fees, road pricing or area licensing'[4].

A key strategic objectives was to 'reduce travel distances and times for commuting to a limit of about 40 km or one hour in each direction through more efficient urban land use structures'.

The idea of 'development corridors' was given significant emphasis, both internally to urban areas as well as on a wider provincial or national scale, to ensure efficient and sustainable agglomeration of activities.

3.1.7 Devolution

One of the strongest themes emerging from both the need to integrate decision making as well as the need to integrate transport planning with land use planning was the need for devolution. Thus, the White Paper states clearly:

The principle of subsidiarity and devolution of public passenger transport functions, powers and duties to the lowest appropriate level of government is confirmed.

The White Paper foresaw difficulties in achieving this. It recognized that public policy was carried out a various levels of government, and that transport institutional policy had to therefore address arrangements for the relationships between various levels of government, as well as the structure for non government, or statutory transport bodies'. But it saw the need for bodies able to 'facilitate the effective and efficient planning, implementation, funding, regulation and law enforcement of the passenger transport system, devolved to the lowest competent level'.

Two set of relationships had to be addressed. Firstly, there was a need to promote integration and co-ordination of policy and activities between the national and provincial authorities. But the White Paper also recognized that the metropolitan conurbations, in particular, were of major importance, with 'a large proportion of South Africa's transport activities tak(ing) place within metropolitan areas'. Thus metropolitan structures were required, and, besides planning, these should 'take full responsibility for execution and implementation in metropolitan areas'.

It is important to note that the White Paper was arguing this in a context of multi-tier metropolitan government. With the subsequent creation in late 2000 of single tier metropolitan authorities the institutional arrangements which the White Paper sought to establish at metropolitan level became far simpler to achieve.

Outside of metropolitan areas, 'services, district and local councils, or provincial authorities, (would) act as transport authorities. They (would) have the same powers and functions as metropolitan authorities to do planning and implementation of infrastructure and operations'. In these areas 'provincial transport departments would be responsible for co-ordination in respect of services, district and local structures and, in particular, rural bodies which have little or no competence to administer the function'.

[4] Restrictions on car usage could only be implemented in conjunction with improved public transport

Thus the approach was strong support for devolution to metropolitan authorities. Provincial involvement was to be focused mainly outside these areas with an emphasis on co-ordination between local level bodies and more direct support where capacity was limited.

3.2 Moving South Africa

3.2.1 Background and vision

The White Paper was approved by cabinet and parliament in September 1996. However, while the White Paper addressed policy and had a time horizon of six to nine years, there was a need to sharpen the analysis based on much better empirical data and to develop strategy. The strategic approach had to identify and make key choices, and to do so with a 20 year time horizon. Thus the Department embarked on a process known as the 'Moving South Africa' project, which aimed to develop a 'shared vision, clear choices, and consistent decision rules for all participants in the transport industry'. The project began in June 1997, and the final report was completed in 1999.

It articulated the vision for public transport thus:

Mainstream urban public transport operations will meet the needs of currently marginalised users, including the Stranded and Survival customer segments, scholars, users with disabilities, prioritised tourist customers and transferring long distance passengers.

Over time, as active measures to restrain private car use become effective, viable public transport alternatives will be targeted at the Selective customer segment who are willing to use improved public transport. This will necessitate more, better and different types of public transport services.

In order to meet these goals, the public transport system will attract sufficient customers per vehicle per day to ensure that fares are affordable, operations are sustainable, and the system as a whole is able to generate adequate funds for the upgrading of both infrastructure and vehicles.

To achieve this vision, public transport provision must be planned and regulated at the local level, with local control over stable funding sources for both operations and infrastructure, detailed research into local customer needs and close co-operation with local land use planning and other relevant local functions.

Department of Transport (1999) Moving South Africa

3.2.2 Strategic challenges

The study distilled the key gaps in urban transport into four strategic challenges, and the underlying drivers of each, that the strategy must address. These were as follows:

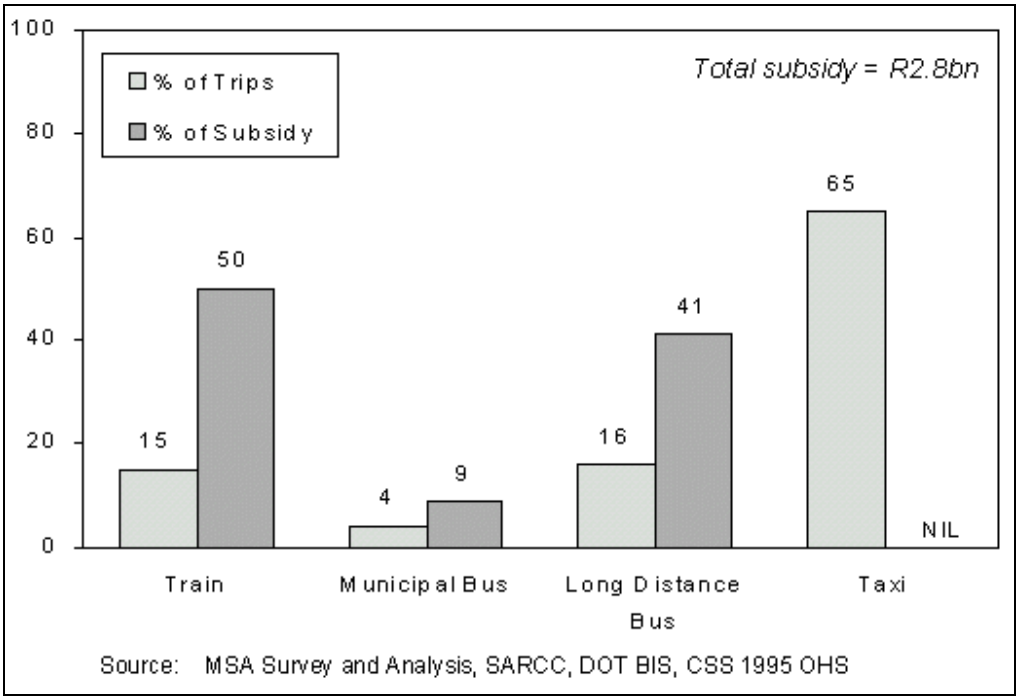
Table 3-1: Strategic challenges and underlying drivers

Strategic challenges	Underlying drivers
Lack of Affordable Basic Access*, driven by*	• Poor subsidy targeting • Past land use patterns
Ineffective Public Transport System*, driven by*	• Lack of financial sustainability and infrastructure investment • Past land use patterns • Poor subsidy targeting • Poor public transport planning, operation and regulation
Increasing Car Dependence*, driven by*	• High road investment • Past land use patterns • Poor public transport planning and regulation
Sub-optimal Spatial Planning*, driven by*	• Past land use patterns • Poor public transport planning and regulation

On land use patterns, Moving South Africa noted that 'the average public transport trip in South Africa is 20 km, which is 11 km longer than in developing Asian countries. The result is that South African commuters spend almost 40% more time traveling than their Asian counterparts. The cost impact is even more dramatic: a hypothetical reduction in trip distances in Pretoria of 10 km would save an estimated annual R350 million in passenger fares, R110 million in bus and rail subsidies, and 100,000 person years of traveling time.

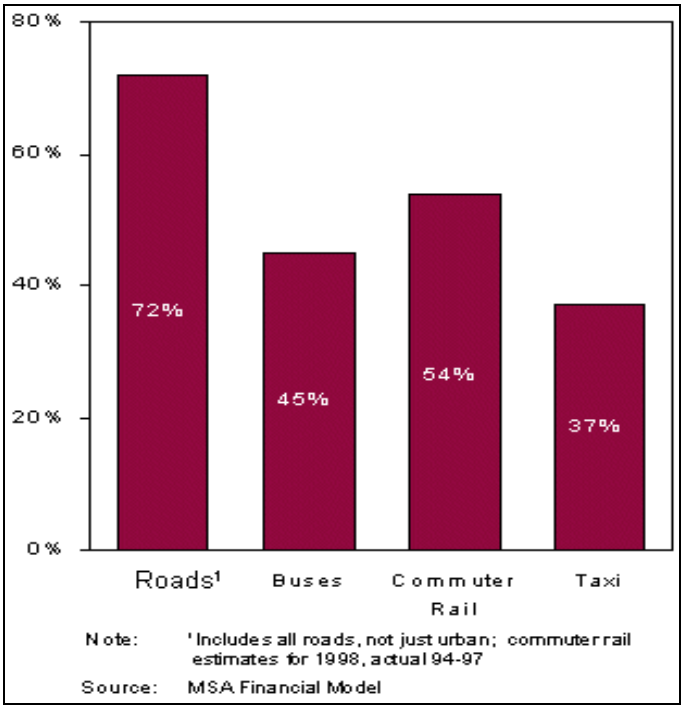
On subsidies it was noted that the subsidies continued to support the mobility of the formal workforce on formal nodes, and that there was a significant mismatch between subsidy allocation and transport use, as shown in the following diagram.

Figure 3.1: Mismatch between transport use and subsidy by mode



With regard to the lack of infrastructure investment the document found the following under-investment in different areas.

Figure 3.2: Current Capital Spending as a Percentage of Long-term Capital Requirements



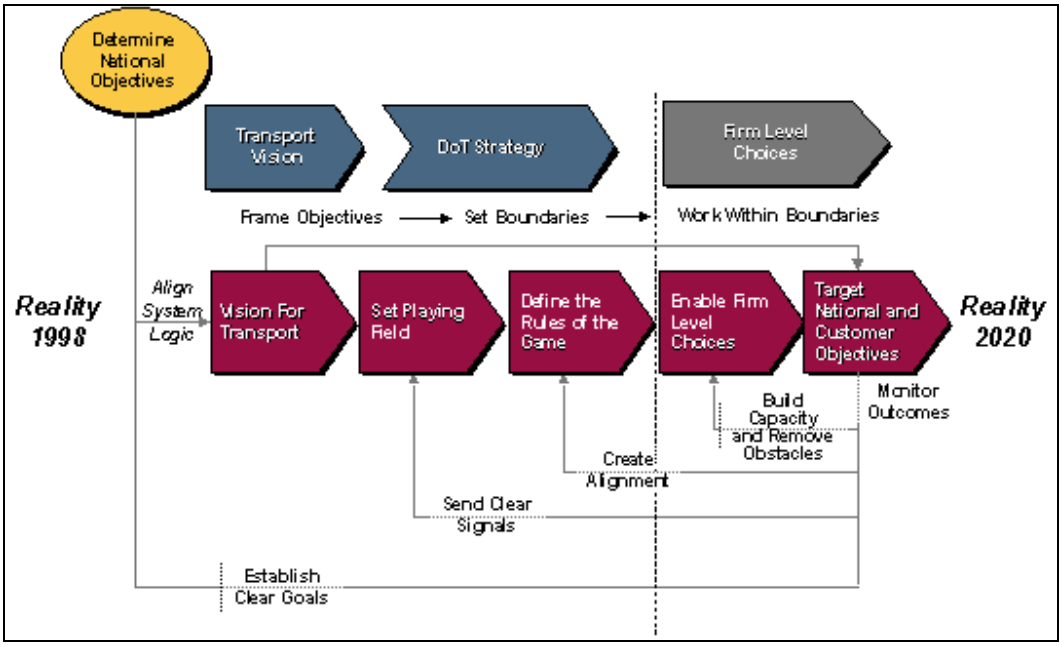
On the issue of poor planning the study noted that part of the problem 'derives from unclear and fragmented institutional arrangements and lack of capacity at many Metros for transport planning and regulation'.

On car use the study reflected the same trends as are discussed in 2.3 above, noting strongly the negative feedback of poor land use planning resulting in greater need for car use, accommodation of this through the provision of infrastructure leading to even more motor car dependency.

3.2.3 Implementation strategy

'Moving South Africa' set out what it termed an 'implementation strategy', although this remained quite abstract. An important theme was the need to create appropriate institutional structures and decision rules to drive implementation. The following figure summarises the elements of the implementation strategy. It separates the areas that are the focus of government, namely, setting a vision and developing a strategy (pre-step and first three steps) from areas that are relevant primarily to ensuring appropriate choices at the level of the firm, or operator (steps four and five).

Figure 3.3: Moving South Africa's implementation strategy



- Pre-Step: Determine National Objectives

This includes enabling government to understand and make crucial high level choices. It involves making key trade-offs and signaling those trade-offs to the relevant roleplayers.

- Step One: Establish the Vision for Transport

There are many different stakeholders in the public transport sector. If they are to work together effectively they all need to share a common vision of what they seek to achieve. However, this process is often filled with obstacles. There is a lack of system level decision making, so individual departments tend to maximize according to a narrow set of constraints which do not take into account system effects. Institutions are often weak, decision rights are often misaligned, and there is a tendency to default to false agreement which is easily broken because of an absence of an effective co-operative governance framework.

In establishing the vision there is a need to establish a clear strategy that makes choices and establishes constraints; develop a workable framework for co-operative governance, consulting appropriately with other stakeholders; agreeing the strategy; and determining which signals to send.

- Step Two: Set the Playing Field

The second step 'requires assembling customised institutional structures which ensure that all the relevant players are participating in implementation in a way that reflects the strategic orientation and choices'.

Obstacles to this include institutional gaps, where there are no institutions that exist to take co-ordinating responsibility; parochial interests, especially where different jurisdictions have different priorities; uncoordinated decision-making by different entities; clouded signals to the various players in the transport system (for example, weak enforcement of taxi registration and permitting contradicting a strong effort at the level of the NTTT to formalise the industry); 'following the old rule book'; and the presence of a substantial amount of externalities which have historically not been factored into the overall transport decision-making framework. The two key levers for achieving this include:

Establishing customised institutions

These institutions will have the primary responsibility for enacting the principles of co-operative governance from step one. They must involve the key players (customers, other institutions with decision rights, etc.) and must ensure a customer orientation. Such institutions must not be organised,around modal interests, but rather around customer groupings (e.g. urban passengers). The mandate for these institutions must derive from the strategy, and it must encourage system integration and innovation. It must have the ability and authority to control actions taken by players that would create a negative impact on the system, for instance, land use planning that counters the need for densification.

Underpinning institutional decision making with funded mandates.

In order for decision rights to be meaningful, such customised institutions require a funding basis, to ensure that funding of projects, infrastructure, subsidies, and other elements of the system are linked to the larger strategy. Moving South Africa noted that part of the difficulty with the current funding system is the complexity of the existing structures, with little co-ordination amongst funding entities or between funding and national objectives. By tying the funding to decision-making, the system simplifies around implementing the agreed-upon national objectives.

- Step Three: Define the 'Rules of the Game'

Having invested decision rights in a cooperatively governed structure, it is necessary to provide decision rules for the local governing bodies and the actors within the transport platform in order that they can become properly aligned. This includes actions such as *investing behind customer segments* (eg building dedicated bus lanes which support a number of customer segments); *internalising externalities* (in a manner that enhances the sustainability of the system in relation its to larger societal impact, and ensures that users bear the full costs of their actions); *isolate the 'exceptions'*; *develop sustainable operators* (by ensuring, for instance, through the tendering process, that they are reinvesting to adequate levels); *make the system economics transparent* (by removing distortions in costing, pricing, and capacity planning) and *support with regulations*.

- Step Four: Enable Firm Level Choices

The fourth step becomes easier once the previous steps are properly taken. However it is still crucial to help build capacity for firms to take advantage of the opportunities available within the context of the strategy. This includes initiatives such as training and demonstration projects.

- Step Five: Target National and Customer Objectives

The performance requirements articulated as a component of the strategy create the basis for a comprehensive set of target outcomes. Measurement of performance is crucial. This includes *establishing targets* based on customer and national objectives; *measuring performance* against targets; *linking funding to performance* against targets such that projects do not receive renewals in the same form if they are not meeting their goals; checking to ensure the system choices are producing the desired results.

3.2.4 MSA Action Agenda for urban passengers

Moving South Africa set out an Action Agenda for urban passengers in order to achieve the vision as set out above and transform 'from commuter-based modal transport to customer-based public transport'

The key thrusts to achieve this were articulated as being to increase the density of public transport demand, to make maximum use of an optimal mode for a given demand and distance, and to improve firm-level productivity to meet the evolving needs of customers.

This entailed 'unwinding' the historic legacy, at the heart of which was the requirement to 'halt further dispersion of development, to effectively regulate all providers in terms of transport plans designed according to user-needs for local areas, and to begin to empower customers to demand better service'.

This needed to be followed by 'building the basic platform' to realize the vision, including

'the creation of high-volume corridor operations over parts of the current network where the greatest potential demand exists. Plans for these corridors must aim to meet customers' speed and safety goals by providing for dedicated public transport roadspace, high quality transfer facilities and high operating frequencies. Both line-haul modes (those that provide transport in the major corridors between major nodes) and feeder services will be specified in the plan and all operations will be regulated by performance-based contracts. Subsidies in these corridors will be targeted at infrastructure development and/or at specific customer segments.

Building the basic platform will require strong transport authorities in the local sphere of government with capacity (both financial and human) for innovative customer research, corridor network planning, prioritising infrastructure investment (for all transport modes and roads), contract management, service monitoring, and enforcement of safety and competition rules.

Town- and city-wide land use visions are also required to define the strategic spatial form and to reinforce existing and potential public transport corridors. Throughout the period of implementing this agenda, the relevant transport and land use authorities will need to develop innovative forms of local-level co-operative governance to achieve an optimal city spatial form. Managing the spatial form of the city is a crucial pre-requisite for realising effective access to opportunities for all.

Amongst the proposals made by MSA was the creation of dedicated road infrastructure for public transport – most likely in the form of busways. These, claimed MSA could provide the optimal solution, allowing increased speeds and comfort levels. Findings were that dedicated infrastructure can save between 5% and 20% of operating costs, if it

improves speed by 25% over current performance. The study went further, arguing that without dedicated or prioritised road infrastructure for public transport, corridor densification was unlikely to yield the improvements in public transport cost and service levels envisaged by the MSA strategy.

Once the basic platform is established this should be built upon by developing the corridor system into a linked network that provides access to key centres and nodes in the city during both peak and off-peak periods. Where they do not undermine the volumes required for a sustainable optimal mode in a corridor, service differentiation could be introduced by encouraging alternative services for more demanding customers.

The MSA research was emphatic that sub-optimal spatial planning was probably the biggest driver of public transport costs and the most difficult to turn around; and that building more roads in already well served metropolitan areas was not the solution to congestion. Experience internationally had shown that more roads attract more traffic which in turn generates demand for even more roads. Instead, this strategy advocates managing car use in these congested areas through controls (e.g. limiting parking spaces), pricing mechanisms and incentives (e.g. promoting ride-sharing) whilst at the same time investing behind the core public transport network as the emerging alternative.

Moving South Africa was also firm that 'with the proposed full devolution of implementation to the local level, there is a need to ensure that stable sources and flows of funding follow'.

3.3 National Land Transport Transition Act (no 22 of 2000)

The National Land Transport Transition Act (no 22 of 2000) – the NLTTA, is a generally well crafted law, which articulates in detailed legal terms, the policies agreed upon in the White Paper and Moving South Africa.

3.3.1 Principles for national land transport policy

It makes provision for transport policies, frameworks and plans in terms of the key principles agreed in the White Paper and MSA. These principles are set out in Part 2 of the legislation and include provisions such as:

4(1)e For the purposes of land transport planning and the provision of land transportation infrastructure and facilities, public transport must be given higher priority than private transport;

and

4(1)j Land transport functions must be integrated with related functions such as land use and economic planning and development through, among others, development of corridors, and densification and infilling, and transport planning must guide land use and development planning.

3.3.2 Transport Authorities

The legislation seeks, within the framework of the Constitution, to create institutions appropriate to the effective governance of public transport. Probably the most critical challenge that it faced in this regard was the creation of bodies located within the local sphere of government, which could manage public transport in an integrated way across what were effectively functional transport regions.

It is of fundamental importance in understanding these elements of the NLTTA to note that the legislation was conceived of and passed prior to the creation of single tier metropolitan 'uni-cities'. Until December 2000 there existed a complex two tier system of local government in the key metropolitan areas amongst which were spread a variety of powers and functions which related to public transport, including transport and land use planning.

The response was to provide in the legislation for what were termed 'Transport Authorities'. The rationale is set out in section 10(3):

10(3) Transport authorities may be established if their effect is to improve transport service delivery in the local sphere of government by grouping transport functions into a single, well managed and focused institutional structure.

Transport Authorities are established in terms of a written founding agreement between an MEC and municipality or group of municipalities, although the MEC 'may not unreasonably withhold consent for the establishment of a transport authority'. s10(5).

The legislation is clear that these bodies are situated within the local sphere, stating that

10(10) A transport authority is governed and controlled by the governing body appointed for it in accordance with its founding agreement, which must consist solely of councilors of the constituent municipality or municipalities, the number of which is determined in the founding agreement.

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The functions of the Transport Authorities include:

- Transport Planning and responsibility for implementation of plans
- Develop Transport policy within its area based on national and provincial guidelines, and incorporate spatial development policies on matters such as densification, in filling and development corridors.
- Perform financial planning with regard to land transport – with reference to transport planning, infrastructure, operations, services, maintenance, monitoring and administration.
- Manage the movement of persons and goods on land by co-ordinating such movement.
- Promote public consultation
- Call for and award tenders for public transport services to be operated in terms of commercial service contracts and subsidized service contracts

Now that single tier 'unicities' in the metropolitan areas have subsequently been created much of the need for separate Transport Authorities has fallen away. While there may be a need to create independent operating entities, divorcing *authority* from the metropolitan municipality into a separate transport authority could once again re-introduce a different type of fragmentation. There may remain a motivation to create Transport Authorities in areas where adjacent municipalities have to be combined, but the requirement for this is much more limited.

3.3.3 Transport Planning

A substantial part of the legislation deals with transport planning. Transport plans are required to form the transport component of Integrated Development Plans required in terms of municipal legislation.

18(1) Land transport planning must be integrated with the land development process, and the transport plans required for that purpose by this Act are designed to give structure to the function of "municipal planning" mentioned in Part B of Schedule 4 of the Constitution, and must be accommodated in and form an essential part of integrated development plans with due regard to the relevant sections of the Local Government: Municipal Structures Act 1998 (Act 117 of 1998).

Transport planning must be done in a manner which enhances the efficient functioning of cities, towns and rural areas, discourages urban sprawl and gives higher priority to public over private transport. The legislation requires a number of different plans including

- National land transport framework
- Provincial land transport frameworks
- Current public transport records
- Operating licences strategies
- Rationalization plans
- Public Transport Plans
- Integrated transport plans

The national and provincial frameworks are five year plans for the development of public transport. It was noted above that the White Paper gave significant emphasis to the need to base policy and implementation on sound data. The 'Current Public Transport Records' are intended to provide this, as well as assist in the formalization of the minibus taxi industry.

The legislation seeks to create mechanisms for managing the transformation of the public transport sector into a much more rationale and effective form, as set out in Public Transport Plans, which are required to be drawn up by public transport planning authorities, including all Transport Authorities, core cities (in terms of previous legislation) and other municipalities identified by the MEC. These must be situated within wider Integrated Transport Plans which deal with the whole transport sector within a planning area. The Operating licences strategies and the Rationalisation Plans are required as a basis for rationalizing the activities of private operators in terms of the Public Transport Plans, based on the approach of 'managed competition', which includes bringing the minibus taxi industry under much more effective regulation. Rationalisation plans are only required if there are subsidized public transport services in the area. These plans, as well as the current public transport record and the operating licences strategy form components of the Public Transport Plan.

3.3.4 Regulated competition

There is significant detail in the legislation arising from attempts to better regulate the minibus taxi industry. This was based, essentially, on discussion and negotiation with the minibus taxi industry through the work of the National Taxi Task Team.

Taxis had operated throughout the country on the basis of permits, which were often poorly defined, and granted without reference to proper planning. For example, some permits provided for a radius of operation, which gave those taxis huge flexibility and allowed them to compete unfairly with other operators. The legislation provided for the conversion of these permits into 'Operating Licences' with much more clearly defined routes, and other requirements, in turn generated from Public Transport Plans. The new licences are restricted to 5 years other than where they are based on a conversion from a permit which had indefinite validity; in terms of South African law the process of conversion may not substantially reduce rights already conferred through a permit. If authorities wish to withdraw permits without replacing them with a reasonable alternative licence, compensation must be paid. The legislation is designed to bring all operators under much more rationale control as quickly as possible.

The Operating Licences are issued by a Provincial Board. However, the board must grant licences based on the recommendation of the planning authority.

The intention is that all contracted transport services be based on a tender process. Once a contract expires it may be allowed to be extended as an 'interim contract' until a clear process is in place to draw up a new tendered contract. There is provision in the legislation to negotiate a new contract once, but this can only be subsequently renewed through a tender process.

Another element to ensure better regulation is the creation of a National Transport Register, which is based on information largely provided by Provincial Registrars. Both associations and individual operators can be registered, but associations get full registration only if all permits have been converted to operating licences. Furthermore, government may not give commercial service contracts or subsidized service contracts to operators which are not registered or provisionally registered.

An important provision is that an operator may not be granted an operating licence unless registered as a tax payer in terms of the Income Tax Act.

3.3.5 Amendments to the Act

The NLTTA was amended in 2006 by means of the National Land Transport Transition Amendment Act (no 26 of 2006) (NLTTAA). This did not represent substantial changes.

However, of some significance was the fact that it defined a municipal public transport service as 'any public transport service that is rendered for a consideration within the area of a planning authority'. The Constitution categorises 'municipal public transport' as a local government function in terms of Schedule 4, Part B. Thus defining municipal public transport in this way means that municipalities have authority over most public transport services within their areas. This definition had been contested by some of the provinces who sought to define municipal public transport as only those services actually provided by municipalities.

Where the previous legislation had provided for a provincial department, a transport authority or a core city to enter into a subsidized service agreement with a public transport operator the new amendments replaced 'core city' with 'metropolitan municipality'.

3.3.6 New legislation

Given that the NLTTA was from the outset regarded as a transitional Act work is currently underway to draw up a replacement which is likely to be known as the National Land Transport Act. A document was completed in August 2007 known as the 'Draft National Strategy for the Drafting of the National Land Transport Bill'.

From this document, it does not appear that the new legislation would introduce significant changes to the NLTTA. It is likely to be clearer on the need to devolve responsibility to the municipal sphere, and to attempt to provide for revenue streams for transport funding. Apart from this it would adapt legislation to be more closely aligned with Public Transport Action Plan, discussed below, including the establishment of Integrated Rapid Public Transport Networks.

3.4 Integrated Rapid Public Transport Networks

In the five years or so after the passing of the National Land Transport Transition Act progress was slow. Attempts were made to improve services on a modal basis without any substantial success.

This included programs for restructuring bus contracts, recapitalizing the minibus taxi fleet, and enhancing Metrorail services. A Transport Authority was established in eThekwini, but has made relatively little impact. These are discussed in more detail in Section 4, along with the one project which did elicit substantial financial and political support – the Gautrain.

From around 2005 new thinking began to develop within the Department of Transport informed by the successes achieved in creatively improving public transport in some of the major cities in South America, especially Bogota, in Colombia – along with some cities in Brazil and Ecuador.

This led to the emergence of a new public transport strategy, which was approved by cabinet in draft form in October 2006 for the purposes of public discussion and finalized in March 2007 on the basis of stakeholder comments and other discussions. An Action Plan was developed alongside the strategy and published in February 2007. (Department of Transport 2007a;b)

In essence the new model emphasizes the need to establish comprehensive public transport networks which are actively controlled and managed by a strong public network company linked to the city authority. While the vision of the White Paper and Moving South Africa is not inconsistent with the new approach this new approach assumes a much more active role for the public sector in the management of city wide networks.

In the Department of Transport's chapter in National Treasury's 2008/09 Expenditure Estimates (National Treasury 2008a), it is stated that 'the strategy articulates a vision to shift public transport service delivery away from operator controlled, commuter based, uni-modal routes to user oriented, publicly controlled, fully integrated, mass rapid public transport networks'.

Because of the importance of the Bogota model to the new thinking this model is explained in some detail here.

3.4.1 The Bogota Bus Rapid Transit Model

The Bogota model seeks to replicate the key successful features of an underground metro system – but instead of being built underground and using rail, it is built at surface and runs with buses. This means that, not only does it have much greater flexibility, but it can be built at a fraction of the cost of an underground metro system.

- Dedicated busways in the median

The system runs on dedicated roadways generally built along the median of the key routes. The median routing is required because this avoids the interference with road traffic needing to turn left (or, in Bogota, right) or access curbside driveways. Traffic is able to turn across the busways at key intersections without blocking the buses. Traffic lights ensuring priority to buses are sometimes required to control this more effectively.

The photograph below shows one of the trunk routes in Bogota with a station.

Figure 3.4: Median busways and station in Bogota

- Enclosed stations with pre-board ticketing

Conventional bus services are made significantly slower by the boarding process, which often requires each person's ticket to be checked by the driver – with the driver sometimes being required to sell tickets. As in a metro system, the Bogota model has enclosed stations with pre-board ticketing and fare collection. Buses have a number of wide doors which can all be opened thus allowing very rapid boarding and alighting.

Figure 3.5: Station in Quito showing controlled access

- Level boarding

Figure 3.6: Station in Bogota showing level boarding

- Public network authority with private operators

The key to the Bogota success lies in its business model. The system is governed by a strong public sector network operator, known in Bogota as Transmilenio, a municipally owned company chaired by the Mayor.

Private bus operators are contracted to run routes and are paid per kilometer, rather than on the basis of numbers of passengers carried. It is possible – and indeed, advisable – to have more than one company running each route. In Bogota standard practice is to have four companies run on each route. The buses, which are owned by

the bus operators, are nevertheless all built to specifications laid down by the network authority and look identical. Buses are closely monitored by video and global positioning devices to ensure that they are running as required. Where four companies run each route every fourth bus will be run by the same company.

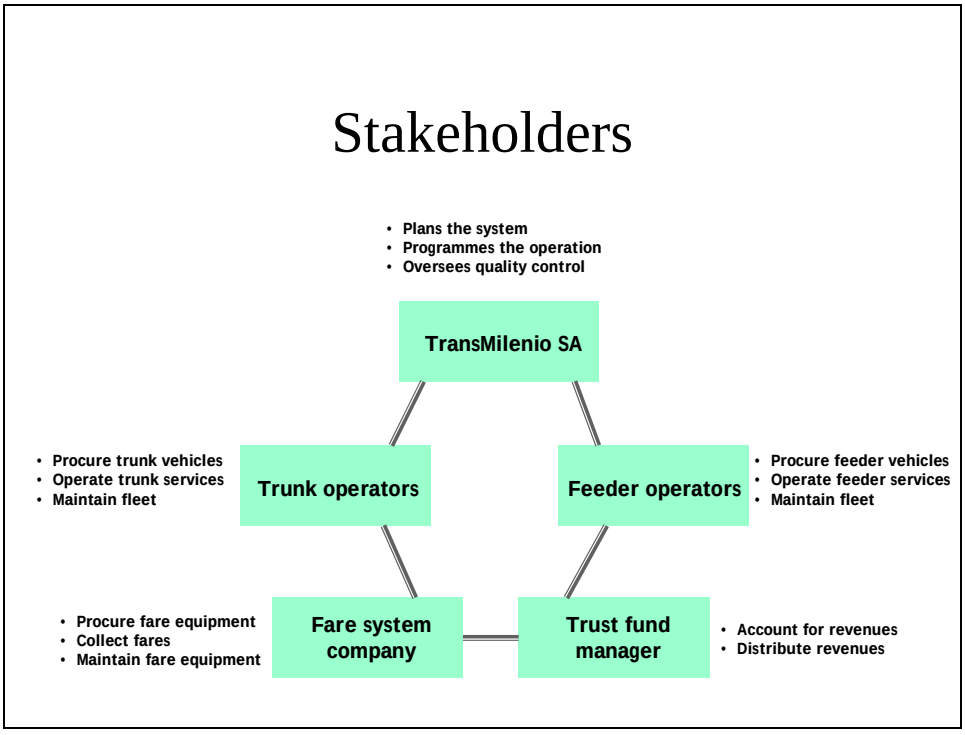
The operators bid to run the services. Thus the model provides for competition *for* the market, but not *in* the market, with the result that it is not necessary for a bus driver to speed in order to chase passengers.

There are generally trunk and feeder operators.

- Independent fare collection company

Because the buses are paid per kilometer regardless of the number of passengers they carry there is a need for an independent fare collection agency which collects the fares and controls for fare evasion. The revenue is passed to a trust fund company which distributes it on a formula basis determined in the system design.

Figure 3.7: Stakeholders in the Bogota model



The upshot of this approach is much stronger public control over the system as a whole, but with substantially private operations based on competitive tendering.

- Integrated fare system allowing easy transfers

Tickets are bought to travel from point to point. Transfers are possible without buying an additional ticket. The median stations permit for easy transfers by simply walking across the station platform without the need to cross any ticket checking barriers.

- Regular services based on a comprehensive network

A key feature of a metro system is the absence of timetables. Trains are sufficiently frequent that it is possible to arrive at the station at any time and not have to wait for long. The Bogota model seeks to replicate this. Because vehicles are much smaller this is more easily done.

Figure 3.8: The Bogota Trunk Network

- Subsidisation of infrastructure, but not operations

In most bus rapid transit systems there is no, or minimal operating subsidy. Public investment is focused on the creation of the median bus lanes and the station and related infrastructure. The dedicated bus lanes result in much quicker travel which is both more convenient for passengers and enables each vehicle to complete more than one trip per rush hour – unlike in areas where buses are caught in general traffic.

The organization of feeder services results in a predictability of service even in areas where this would be absent in a system where vehicles are paid per passenger carried. This expands the market for the system.

These factors, together with the relative densities of most cities enable systems to be run without operating subsidies.

In sum, the new business model generates more overall revenues due to:

1. Increased operational efficiencies (central control, coordinated services, exclusive busways, etc.)

2. Economies of scale (maintenance, fuel, vehicles, fare collection, etc.)

3. Increased overall customer numbers (improved service)

4. Network effect

    - Integration of existing operators into new system

The Bogota system was introduced into a context not dissimilar from that current in South Africa in that public transport services were largely supplied by informal minibus taxi operators together with more formal bus services. In Bogota these two types of operators were integrated into the new bus operators servicing Transmilenio.

3.4.2 Public Transport Strategy and Action Plan

The new Public Transport Strategy and Action Plan is founded upon two key thrusts, namely,

- Accelerated Modal Upgrading
- Integrated Rapid Public Transport Networks (IRPTNs)

Modal upgrading focuses on the 3-7 year transitional period and consists of a continuation of current programs with some adjustments to ensure consistency with the new thinking. Thus, modal upgrading consists of current upgrading efforts for Bus, Passenger Rail and Minibus and Metered Taxis.

Integrated Rapid Public Transport Networks has a '4-20 year period and aims to implement high quality networks of car competitive public transport services that are fully integrated, have dedicated right of way and are managed and regulated by a capable municipal transport department' (Department of Transport 2007b).

The two thrusts are complementary in that the intention is for the improved modal operations to be integrated into the IRPTNs. The objective is to achieve

'Phased implementation of a SINGLE user responsive, publicly planned and controlled system, that integrates routes into a multi-modal mass rapid public transit network and provides maximum accessibility and coverage in a city or district for ALL citizens both in townships and suburbs as well as rural districts.'

The Strategy and Action Plan is explicit that the system should be run by metropolitan governments and Transport Authorities. The Action Plan proposes

the phased establishment of transport authorties that are able to plan, manage and regulate a Network in which the transport authority is responsible for the fare revenue and operators are contracted to provide particular services in terms of the Network Plan.

The Action Plan seeks to help initiate 'implementation in a speedy and highly visible manner with maximum impact', pointing out that successful implementation over the Phase I and II periods (2007-2014) in 18 of South Africa's total of 53 Metropolitan and District Municipalities will see the improvement in public transport services for potentially over half the country's population'.

The Strategy and Action Plan set out a three step strategic phasing for both thrusts as illustrated in the following diagram.

Strategic Phasing 2007-2020		
Phase I 2007-2010 **Accelerated Recovery & Catalytic Projects (up to 12 cities and 6 districts)**	**Phase II** 2010-2014 **Promote and Deliver Basic Networks (up to 12 cities and 6 districts)**	**Phase III** 2014-2020 **Advance and Sustain Acccessible Networks (maximal national rollout)**
Accelerated Modal Recovery aligned to Integrated Rapid PT Network (if applicable) • Taxi recapitalization • Rail Accelerated Rolling Stock Recovery Plan • Bus tendering based on redesigned routes • Safety and Security Enforcement on PT	• Modal recovery completed (taxi recap, rail and bus upgrading) • Expand initial Priority Corridors into a Basic Service Network in Metros/Districts & phase in car use disincentives	• Metro/District-wide Full Service Network coverage. • Fund PT/NMT through local charging of car users for road use and parking
Metro/District Catalytic Integrated Rapid PT Network Project: • Basic Rail and Bus Rapid Transit Corridors • PTISG – 2010 Legacy • New rural subsidized PT services • Non Motorized Transport Facilities • Car Use Management • Integration with Metered Taxi and Long Distance PT for 16-24 hours service	• Intermediate BRT/Rail Network operational on major corridors • Integrated fare system and Intelligent transport system control centres • All operators consolidated into capable network service providers	• Full coverage BRT/Rail Network • Full physical and fare integration • Strict land use actions to support PT Network • High quality intercity rail/road services operational

The three critical implementation building blocks are described in the Strategy as:

- "Integrated Rapid Public Transport Network Implementation Plans"
- Municipal control over integrated networks
- A maximum stake for existing bus/minibus sector in rapid public transport network operations."

4 Key Public Transport projects

This section discusses specific developments across modes, including key public transport projects. These include restructuring of the formal bus contracting system, developments in commuter rail; the taxi recapitalization programme; the Gautrain; and the new leading bus rapid transit projects in four cities.

4.1 Bus contract restructuring

During the apartheid period a system of subsidized commuter buses was established in order to mitigate the high transport costs that resulted from the location of black residential areas far from commercial areas and other work opportunities. As has been explained, the rationalization of this system to ensure a more competitive operating model was a key priority arising from the White Paper process, combined with attempts to introduce more efficient urban forms.

The apartheid era bus subsidy system was based on 'lifelong' permits. Operators who had a permit to operate a route could do so for as long as they wished. An economic fare was determined for the route based on cost estimations and a 'normal' profit, and a subsidized fare was also set. Operators collected the subsidized fare from the commuter and the difference between the economic and subsidized fare was paid by government.

Soon after 1994 the Department of Transport shifted to a new system known as 'current tendered contracts'. These were initially for a period of four years, but from April 1997 they were changed to five years in an attempt to lower costs. Subsequently they were shifted further – to seven years.

Part of the objective in the new tendering approach was to lower the average age of the buses. In 1997 the average fleet age profile in the country was 13 years, with many of the buses using obsolete and inappropriate technology. The objective was to lower the average age to 10 years by specifying the maximum bus age requirement of 15 years and only allowing a bus younger than 15 years from date of first registration to be rebuilt or refurbished. (Department of Transport 2004b)

The following key conditions were imposed by the Department in respect of new bus contracts (Department of Transport 2004b)

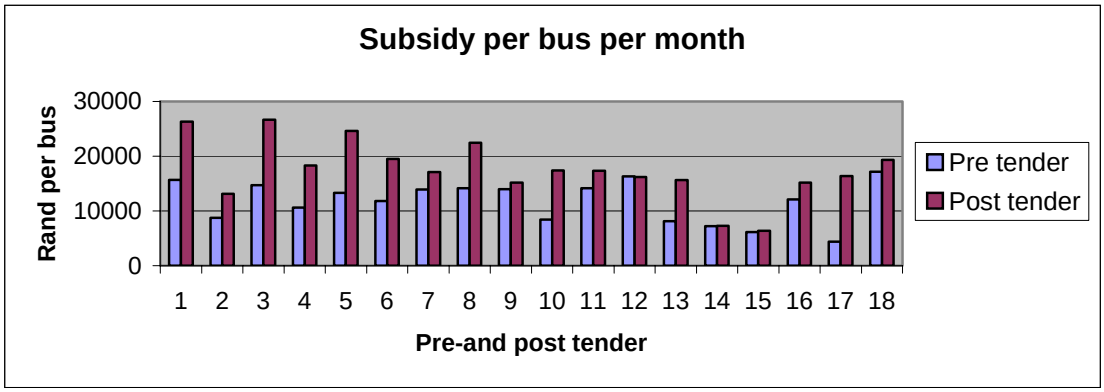
- In the case of an unscheduled service (mini-bus taxi), the operator needs to be registered with the Registrar of the Province in which the relevant contract is to be performed
- Conduct public transport operations according to business principles with financial ring-fencing
- Be liable to pay income tax and furnish proof that the operator is a registered taxpayer under the Income Tax Act
- The Operator must promptly obtain operating licences for the routes described in the tender.
- Operate a scheduled service as approved by the Operating Licence Board in terms of route designs and description

- All vehicles must conform to the requirements and regulations of the Road Traffic Act, 1989 as well as other applicable SABS specifications
- Install electronic information and ticket equipment
- Only use stops, rank or terminal facilities authorised by the local authorities.

After its promulgation in 2001 the NLTTA sought to govern the new approach to bus contracting. However, in May 2001 a moratorium was placed on issuing the new tenders because the sections of the NLTTA which governed transport planning had not yet been brought into effect, and no tender could be issued without such plans. An amendment to the legislation addressed this, but the prices which were tendered on the basis of the new contracts were generally too high to be affordable to the departmental budget.

The following graph compares the subsidy per bus prior to the new tendering approach and the subsidy in terms of the new approach for 18 contract areas. All of the new tender prices were higher. (Department of Transport *et al* (2002)).

Figure 4.1: Comparison of subsidy per bus between old and new tender system



Since February 2003, when the moratorium was lifted tenders that were not brought onto the new basis were extended on a monthly basis, and are known as ‘interim contracts’. Provision was also made in the NLTTA to permit the authorities to negotiate new terms with an existing operator. This is allowed only once per contract, after which a full tendering process is mandatory. Such contracts are referred to as ‘negotiated contracts’.

Problems with the interim contracts include that:

- The passenger base and route descriptions in these contracts are obsolete.
- This system entrenches the current subsidised operators and restricts the transformation of the industry.
- The management and monitoring of these contracts have proven to be almost impossible due to the nature of these contracts. (Department of Transport 2004b)

The most recent information from the Department of Transport compiled in 2007 gives the following statistics for bus fleets which receive some form of subsidy from national government via the provices.

Table 4-1: Provincial subsidized bus fleets

Province	Number of buses	Main operating companies
Eastern Cape	265	Algoa Bus Company
Free State	240	Inter State Bus Lines
Gauteng	2130	Putco, North West Services
Mpumalanga	440	Putco
KwaZulu-Natal	1600	various
Limpopo	190	Great North
Northern Cape	40	various
North West	220	various
Western Cape	910	Golden Arrow
TOTAL	6035	

Source: Department of Transport (2007d)

Some of the subsidized bus companies are the old municipally owned fleets which have now, in some cases, been privatized or corporatised and generally receive some subsidization from municipal councils.

Table 4-2: Municipal subsidized fleets

Province	Number of buses	Main operating companies
Johannesburg	530	Metrobus
Tshwane	232	Tshwane Bus Company
Ekurhuleni	76	
eThekwini	650	
TOTAL	1488	

Source: Department of Transport (2007d)

This is approximately the same total size as shown by previous statistics in 2004 when it was reported that there were approximately 7500 subsidised commuter buses and 2600 unsubsidised commuter buses running in terms of operator licenses.

The Southern African Bus Operators' Association (SABOA) was formed in 1980 to represent the interests of the bus industry at government level as well as among its stakeholders. As of 2004, SABOA represented approximately 80% of the national fleet involved in bus transport and had 501 (95.4%) principal members that operated between 1-30 buses, and 24 (4.6%) principle members that operated more than 30 buses.

Black owned bus companies accounted for 37% of the subsidy budget in 2003/4. (Speech by Director General of Transport to SABOA 2005)

The total national provision for the bus subsidy is as follows:

Table 4-3: National bus subsidy and yearly increase

Year	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11
Amount of subsidy R1000's	2172740	2297753	2460335	2835997	2829596	3048815	3238744
Percentage increase on previous year	-	5.8%	7.1%	15.3%	-0.2%	7.7%	6.2%

Source: National Treasury (2008a)

There was an additional allocation of R300 million in 2007/08 which resulted in the rise that year of 15% over the previous year. However government is intent on containing the total bus subsidy costs and forcing a shift to a more efficient approach.

The process by which the tender arrangements have been managed has been somewhat loose. Until 2007 provinces managed the subsidies on behalf of national government; thus the subsidies did not appear in provincial accounts. This led to issues around where accountability properly lay. From last year this changed, although the arrangements by which some provinces run subsidies for bus routes which in a number of cases fall entirely within a single municipal area is unsatisfactory, and possibly contrary to constitutional provisions.

Thinking around the way forward on bus subsidies will now have to take into account the changes introduced by the new Integrated Rapid Public Transport Network approach of the Department of Transport and some of the bigger cities.

4.2 Taxi recapitalization

The Taxi Recapitalisation Programme was presented to cabinet in September 1999 and agreed to. At that point the number of taxis that it was estimated were to be recapitalized was 97000.

The idea of taxi recapitalization was a creative one, arising from the work of the National Taxi Task Team, which was created by government in the mid 1990's to attempt to address the many challenges in the taxi industry – including challenges around the profitability of the industry, safety levels, and the high level of taxi violence. Recognising the very significant role played by the taxi industry, the objective was to enhance its quality while retaining many of its key market driven characteristics within a better managed overall formal framework. The creation of SANTACO in September 2001 was one of the outcomes of this process.

There were a number of motivations for the taxi recapitalization programme. Firstly, it was hoped to reduce average fleet age and thus improve safety, together with other improvements arising from more modern technology. Secondly, the larger vehicles introduced by recapitalization should result in more operational efficiency thus permitting for an overall more efficient service. Thirdly, it was expected to assist in the formalization of the taxi industry. And fourthly, it was a response to arguments that the taxi industry was unfairly discriminated in that it was not subsidized while the bus industry was. The

Taxi Recapitalisation Programme offered a more manageable and restricted form of subsidy than replicating the operating subsidy of the buses.

Taxi Recapitalisation did not exclude the possibility of taxi owners getting operational subsidies. Indeed, it was argued that by enhancing efficiency through the once-off recapitalization process taxi operators should be in a better position to tender for subsidized public transport contracts.

Unfortunately the implementation of the Taxi Recapitalisation Programme has been extremely slow. There were significant disputes around the specifications of the new taxi vehicles that could qualify as replacement vehicles, and the Scrapping Administrator was only eventually appointed in October 2006.

The Estimates of National Expenditure (National Treasury 2008) give the following figures on the Taxi Recapitalisation Programme.

Table 4-4: Expenditure on taxi recapitalization and taxis scrapped

R1000's	Actual			Estimated			
	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11
Taxi Recapitalization Programme	10000	28408	231784	995809	574702	550475	523537
Taxi scrapping allowances as part of above programme	0	0	99500	570000	459000	430765	397611
Taxis scrapped			2000	11400	9180	8600	7940

Source: National Treasury (2008)

Minister of Public Enterprises, Alec Erwin, confirmed in parliament in February 2008 that as of that date 13261 taxis had been scrapped.

Logistical problems are amongst those presenting obstacles. For example operators cannot afford significant downtime, yet there can be a considerable delay between the scrapping of the vehicle, the issuing of the R50000 allowance and the delivery of a new vehicle. Many in the industry also argue that the R50000 is now insufficient to make a real impact, yet it would be difficult to change this amount; and, indeed, any suggestion that it might change would lead to a halt to the scrapping while owners wait for the higher amount to be introduced.

Recent figures from the Department of Transport give the following total estimated number of minibus taxis by province.

Table 4-5: Total estimated number of minibus taxis by province

Province	Number of taxis
Eastern Cape	10000
Free State	6000
Gauteng	44000
Mpumalanga	9000
KwaZulu-Natal	21000
Limpopo	9000
Northern Cape	1200
North West	10000
Western Cape	15000
TOTAL	125200

Source: Department of Transport (2007d)

The following table shows the estimated number of minibus taxis within each of the 2010 Host Cities

Table 4-6: Total estimated number of minibus taxis by 2010 host city

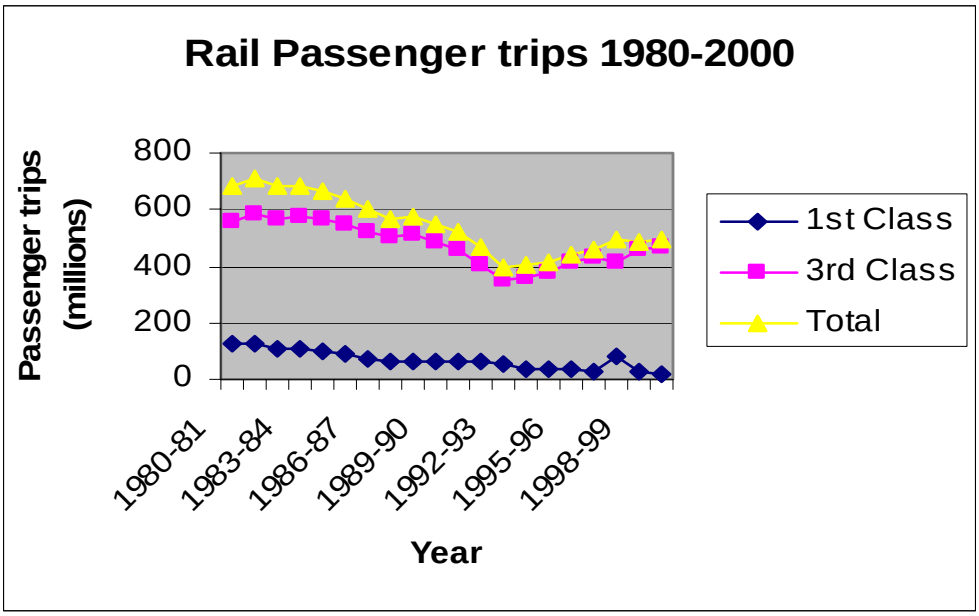
City	Number of taxis
Cape Town	7500
Nelson Mandela Bay	2100
Ethekwini	8600
Mangaung	4500
Johannesburg	12500
Tshwane	10700
Rustenburg	2000
Polokwane	1800
Mombela	1200
TOTAL	50900

Source: Department of Transport (2007d)

4.3 South African Rail Commuter Corporation and Metrorail

The growth of the taxi industry saw significant market share shifting away from rail. Rail is a relatively inflexible mode requiring expensive capital investment. As has been indicated in the first section of this report, it has generally low accessibility when compared with other modes.

The taxi industry was particularly effective at competing for the off-peak market. Low volumes in the off-peak meant that even infrequent trains were largely empty. Taxis were much better at serving this market. Investment in public transport – as with many other utilities is determined by peak demand. Where there is a high peak to base demand ratio significant investments lie idle during off-peak periods. By more successfully serving the off-peak market taxis were able to smooth their demand profile during the day – reducing their peak to base ratio – while exacerbating the ratio for rail. The following figure shows the decline in passenger numbers on Metrorail from the early 1980's when the taxi industry began to establish itself.



From 1994 the passenger numbers did begin to pick up – especially 3rd class passengers, who are highly subsidized. Opening of new lines in Khayalitsha in Cape Town has contributed to passenger number growth. However, at 512 million passenger trips, numbers in 2005/6 were approximately level with the 491 million in 1999/2000 and still below the 1990/91 figure. The decline in investment in the Metrorail system over a long period has resulted in a generally poor service in much of the country. Frustration with services has led in recent years to a number of serious instances of vandalism with whole trains being burnt in protest at delays and other problems.

In 1989 government had tried to address the problems in commuter rail by introducing a South African Rail Commuter Corporation to act as a 'purchaser' of services from the 'operator' Metrorail. Metrorail was part of Transnet. The mandate of SARCC was to 'ensure rail commuter services were provided in the public interest and to promote rail as the primary mode of mass commuter transport'. Its functions included financial and subsidy management, the management of the asset base and property portfolio, and the provision of passenger rail information. With the restructuring of Transnet cabinet decided in 2004 to combine SARCC and Transnet under the national Department of Transport, although the stated intention is that rail be devolved to provincial or metropolitan governments. The shift of Metrorail to the Department took place in March 2007.

Section 28 of the NLTTA (as amended) states that

> s28. Until the function of commuter rail is devolved from the national to another sphere of government, the transport framework and plans contemplated in section 19(1)(b) and (g) respectively must be submitted to the Minister for approval of the commuter rail component of such framework and plans, within the prescribed manner and time.

In 2006 a National Rail plan was agreed as a basis for re-investing in the industry. Since the mid 1980's no new trains had been purchased and much of the technology dated from the 1950's.

The Rail Plan sought to assess the viability of the various corridors across the country as a basis for deciding on investment priorities. The criteria used for measuring the priority levels of each corridor were:

1. National/Provincial/Metropolitan Integrated Transport policies
2. Current patronage and stated user requirements
3. Scope for off-peak services – based on mix of uses en-route
4. Scope for two-way peak service based on character of nodes
5. Overall travel demand patterns
6. Expected permanence of spatial and nodal features that could support a rail service – long term sustainability of a rail service
7. Factors favouring growth in market share for road-based public transport modes
8. Factors favouring growth in market share for the rail mode
9. Engineering feasibility of enhancing service specification
10. Operational feasibility of enhancing service specification

Based on these criteria each corridor was graded A to D as follows:

A	Clear case for rail (High service level – ranks amongst top corridors and rail is clearly more appropriate and cost effective than other modes with passenger numbers at > 20 000 – 30 000 passengers per hour)
B	Rail still justified (requires lower level of service than for 'A' but higher than current
C	Case for rail uncertain (needs further review)
D	No case for rail at present

Source: SARCC/Metrorail 2006

The following table shows some key statistics for those corridors classified A and B.

Table 4-7: Key statistics for A and B rail corridors

Region & Corridor		Daily Passenger Trips	Daily Passenger Km's	Daily Train Journeys	Daily Train Km's	Route Length (km)	No. of Stations
Tshwane	Mabopane-Pretoria (A)	266,700	3.55m	93	1,660	39.5	18
	Pienaarspoort-Pretoria (A)	182,600	1.22m	48	1,275	26.6	14
	Olifantsfontein (B)	60,100	1.74m	79	2,820	31.7	9
	Saulsville (B)	107,200	0.54m	57	801	14.1	7
Wits	Core network (A)	248,410	1.93m	260	8,169	42.8	27
	Naledi-New Canada (A)	85,483	0.54m	185	2,975	16.1	8
	Kwaggastroom-NC (A)	86,290	0.49m	108	5,173	52.6	15
	Olifantsfontein/Tembisa (A)	110,339	2.16m	105	4,022	43.5	13
	Daveyton-Germiston (B)	60,306	0.92m	82	2,843	31.5	11
	Springs-Dunswart (B)	29,086	0.59m	65	1,311	20.2	9
	Kwesine-Germiston (B)	36,704	0.46m	56	1,784	27.1	12
	Randfontein-Langlaagte (B)	27,804	1.05m	72	2,723	37.8	23
Ethekwini	Umlazi (A)	221,300	N/A	167	3,955	45.3	20
	Kwa-Mashu (A)	144,000	N/A	36	3,955	45.3	20
	Duffs Road (B)	35,200	N/A	36	2,750	74.7	19
	Isipingo (B)	36,700	N/A	64	2,890	50.7	16
	Crossmore (B)	17,500	N/A	30	730	20.2	5

Western Cape	Khayelitsha (A) Kraaifontein (A) Simonstown (A) Balance of corridors	338,000 75,000 130,000 160,000	6.62m 2.32m 3.68m 1.05m	171 134 204 154	5,610 1,790 5,660 5,890	34.0 31.0 36.0 N/A	18 27 42 N/A
Eastern Cape	(NMMM) (B) (BCC) (B)	9,800 22,100	0.15m 0.53m	12 23	380 957	33 41.6	11 18

Source: SARCC/Metrorail 2006

Flowing from this assessment a capital investment plan for the short, medium and long term was developed as indicated in the following table.

Table 4-8: Capital investment plans for Category A corridors by region for Metrorail excluding rolling stock requirements

Region	Short term (Rm)	Medium term (Rm)	Long term (Rm)
Tshwane	R55.5m	R126.0m	R105.3m
Wits	R2,202m	R599m	R2,000m
Kwa Zulu Natal	R786m	R150.7m	-
Western Cape	R740m	R90m	R142.5m
Eastern Cape	R218m	R60m	-
Total	R4,001m	R1,026m	R2,248m

Source: SARCC/Metrorail 2006

The following table gives an assessment of rolling stock needs to provide two different levels of service along both A and B corridors. Of significance is the very substantial number of existing fleet currently out of service. This provides a good indicator of the extent of underinvestment and poor maintenance in the service.

Table 4-9: Projected rolling stock needs for A and B priority corridors (2006)

Region	Allocated Regional Fleet	Currently Out of Service	Currently Useable Fleet	Train Sets needed to offer Corridor Service Levels[1] on A and B Corridors (keeping existing service levels elsewhere)			
				10 Minute Headways		5 Minute Headways	
				Additional Sets Needed on A and B Corridors	Total Fleet Requirement	Additional Sets Needed on A and B Corridors	Total Fleet Requirement
Tshwane	54	10	44	16	60	45	89
Wits	129	45	84	-	<84	50	134
eThekwini	68	23	45	13	58	19	64
Western Cape	90	3	87	-	<87	20	107
E. Cape (NMMM)	5	-	5	'-1'	4	-	-
E. Cape (BCM)	7	-	7	-	7	4	11
Sub-Totals	343	71	272	28	300	138	405
Spare Sets (10% of Fleet)					30		41
Totals					**330**		**446**

Source: SARCC/Metrorail 2006

Since the adoption of the National Rail Plan by cabinet there has been a marked increase in investment in Metrorail. Some of the key statistics are provided in National Treasury's latest Expenditure Estimates (National Treasury 2008a).

According to this report the corporation aims to boost revenue by

- Replacing the ticketing system
- Focusing on fare evasion
- Re-balancing fares
- Increasing patronage by arresting the decline in passenger numbers and capturing key strategic corridors

Figures for the period between April and December 2007 show an increase in passenger trips by 13.2 percent, including a 17 percent increase in first class (Metro Plus) trips. It is not evident to what extent this is generalized across all regions or arises from specific investments in new locations, such as Khayalitsha.

The following table shows amounts transferred to SARCC for current and capital subsidies.

Table 4-10: Transfers from National Government to Metrorail and SARCC

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Current	1 843 550	2 156 377	2 751 274	2 259 119	3 003 590	3 163 957	3 280 765
Capital	655 000	688 300	1 029 598	1 696 078	2 367 686	3 684 144	4 393 193
Additional transfers from PTISG			179 000	476 000	210 000	450 000	

Source: National Treasury (2008a)

The significant increase in capital expenditure is vital to improving Metrorail services, and the focus of the investment on priority corridors means it is easier to make improvements in key areas.

Rail is the most appropriate mode where large passenger numbers need to be transported. However, as indicated above, it is a relatively inflexible mode and requires substantial capital investment. Unlike buses, trains can only run along tracks! Within dense urban areas an important element of rail costs, which is often not properly incorporated into rail programme costing is the fact that crossing rail lines is difficult, often requiring expensive bridges or tunnels. The kind of heavy rail technology used by Metrorail services thus does have a tendency to create significant barriers across urban space.

The inflexibility of rail also presents problems where off peak usage is low.

Slightly disturbing are recent indications that having achieved much greater funding support Metrorail is now appearing to support expensive projects outside of the priority projects indicated above. Two examples that require further examination are the Moloto Corridor project, involving R8.6 billion expenditure to build a high speed train to serve a fairly dispersed rural route of 118 kms currently used by approximately 30 000 subsidised bus passengers between Tshwane and KwaMahlangu, the former KwaNdebele homeland; and a Cape Town CBD-airport rail link estimated to cost R1.8 billion, yet expected to carry very few passengers.

Even if this is not the case, creating a governance framework that places effective planning and prioritization of commuter at the city or transport authority level within a rational fiscal framework is a priority, even if more substantial devolution in line with stated policy intentions takes longer.

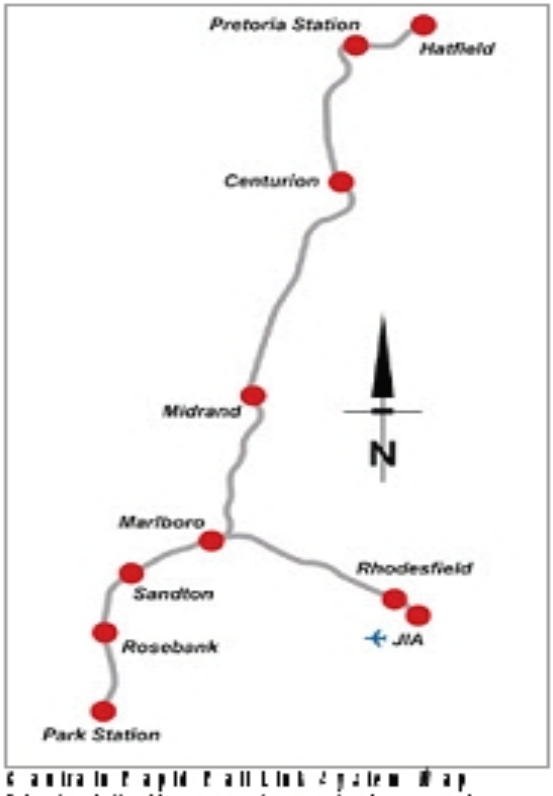
4.4 Gautrain

The Gautrain is a rapid rail link with a total distance once completed of 80 kilometers. It will run between Park Station in Johannesburg in the south and Hatfield in the north, with a line connecting from Malboro Station north east of Sandton to the OR Tambo Airport.

The train will run on standard guage, rather than the current narrow Metrorail guage. There will be a total of 24 trains with four cars each. Trains will have a maximum speed of 160 kilometers per hour with 6 trains an hour traveling in both directions. The system will operate for 18 hours a day and will have 10 stations. The route with stations is shown in the accompanying map. 12 kilometres of the route will be tunneled.

The project feasibility study indicates that projected trips per day will approximate 100000 rising eventually to 130000 once the project is completed. It was claimed in the feasibility study in 2004 that 20% of car users using the Ben Schoeman highway could be expected to use the Gautrain.

The Gautrain was originally announced as a provincial project in 2000 by Gauteng premier, Sam Shilowa. In 2000 it was projected by the provincial government to cost R3.5 to R4.0 billion. However, costs escalated as planning proceeded. In October 2005 it was announced by the Minister of Finance that the project had 'national status' and that it would be supported financially on a matching 50:50 between national and provincial government. A further amount is required to be contributed by the Bombela consortium building the project.



The cost escalation has been significant. The estimated figure was revised upwards to R7.0 billion at the time of the Environmental Impact Approval process in 2004, but in the Minister of Finance's announcement in October 2005 the cost was put at R20 billion. Currently, it would appear that costs are around R27 billion.

The following table shows actual and projected cost contributions from national government.

Table 4-11: National government's matching contribution to Gautrain

2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
0	0	3241000	3029411	3265993	2507211	317526

Source: National Treasury (2008a)

This amounts to a total of R12361141 which would match an equivalent amount by the provincial government. To this should be added an additional amount of approximately R3.0 billion which is being borrowed by the Bombela Consortium to give a total approximate project cost of R27 billion.

As indicated in the introduction, this compares with an estimated R70.1 billion projected to be spent by national government (including the R12.36 billion on Gautrain) on all public transport related services between 2006/07 and 2010/11.

The Gautrain may require further operating subsidies. This will be the case were ridership not to reach envisaged minimum levels able to ensure profitability, in which

case government has given minimum ridership guarantees. In 2006 the maximum theoretical exposure of government was calculated at R14.3 million per month for 15 years. The likely maximum exposure was R7.5 million per month, while a more likely figure based on simulations was R5.9 per month.

Following the announcement that the project had national status, the Transport Portfolio Committee in the National Assembly held hearings in terms of its oversight obligations. The committee expressed serious misgivings about the project. It found that there had been insufficient transparency and effective participation by key stakeholders; that the costs were extremely high in relation to other more pressing public transport requirements – and possibly still under-estimated; that it was a high risk project aimed mainly at an affluent target market; and that it represented a fragmented approach that would address only a very limited part of total public transport corridor needs in Gauteng.

The committee advised against going ahead with the project in its current form, arguing that much greater attention was needed to how the Gautrain integrated with other public transport systems and suggesting that the best approach would be to develop a more comprehensive network based on the Integrated Transport Plans of the three metropolitan governments rather than a single costly project.

In its report the Committee noted in detail some of the evidence provided to it by the Gauteng Provincial Passengers Council's, including arguments that they project ran counter to the requirements of the NLTTA in that it 'is not aimed at currently marginalized users and will not assist those who have poor access to social and economic activity.'

Construction is now fully underway and it is hoped that the link beween OR Tambo Airport and Sandton will be in place prior to the World Cup. Properties near the key stations have escalated significantly in value since the project was finally confirmed, and it is hoped that some of the key fears will prove unfounded. (National Parliament 2005)

4.5 Bus Rapid Transit

Section 3.4 above has noted the new directions adopted by the Department of Transport with its 2007 public transport strategy based on the creation of Integrated Rapid Public Transport Networks, and, more specifically, the new Bus Rapid Transit systems, which are envisaged to play a central role in realizing the new approach. The new BRT systems have gained significant public support, including in the President's State of the Nation speech in 2007, the Minister of Finance's budget speeches in 2007 and 2008 and in a number of speeches by the Minister of Transport. The chair of the Parliamentary Portfolio Committee on Transport has also expressed support for this new approach, the characteristics of which have been outlined in section 3.4.1 above.

In its Expenditure Estimates document published with the 2008 budget National Treasury notes that an additional R2 billion is to be added to the public transport networks budget specifically to assist in the funding of Bus Rapid Transit systems. The funding is aligned with the 2007 public transport strategy.

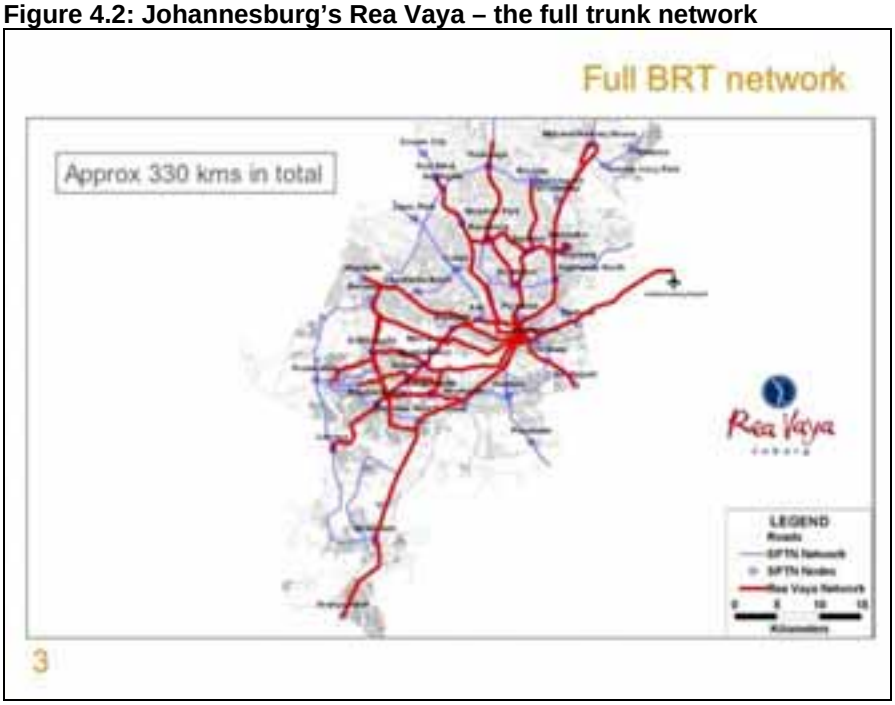
As of the start of 2008 there are four BRT projects at a reasonably advanced planning stage – in Johannesburg, Tshwane, Cape Town and Nelson Mandela Bay Metro.

4.5.1 Johannesburg's Rea Vaya

Johannesburg was the first city to decide to follow the BRT approach, presenting a report to council in December 2006 and gaining agreement to go ahead with the project. It is noteworthy that Johannesburg elected to adopt this approach shortly prior to the Department of Transport adopting its new strategy. There was clearly a substantial exchange of ideas and aligned thinking on the matter.

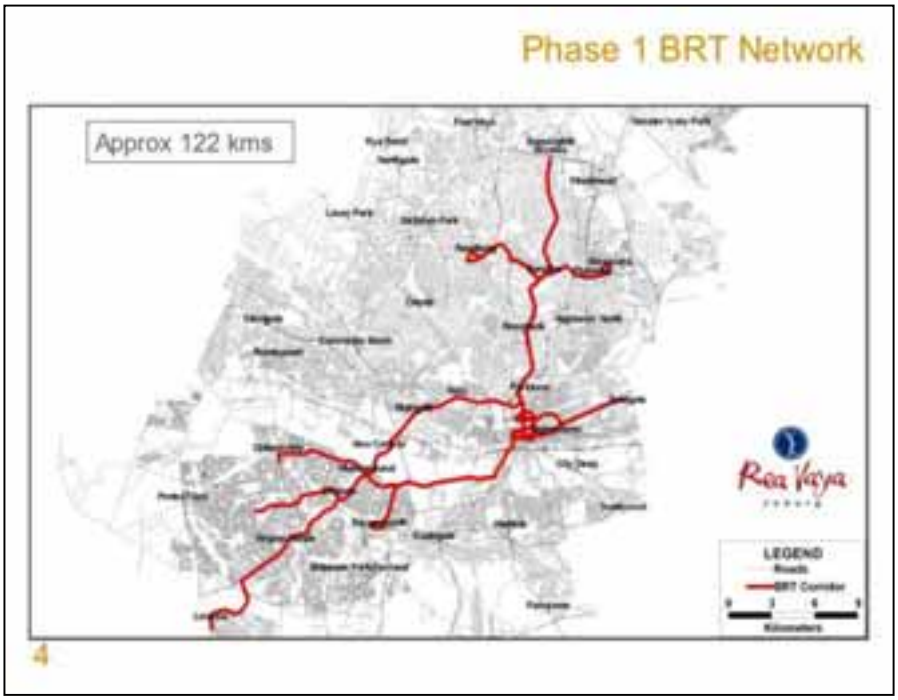
The Rea Vaya aims to put 85% of all Johannesburg residents within 500 meters of the system – which would consist of both trunk and feeder routes. The overall network is shown in the following map.

Figure 4.2: Johannesburg's Rea Vaya – the full trunk network



The first phase of the project is envisaged to be in place in time for the 2010 World Cup, with an earlier set of routes aiming for completion in time for the Confederations Cup in 2009. The first phase consists of routes totaling approximately 122 kilometers, with 150 stations in total. The following map shows the routes of the first phase.

Figure 4.3: The first phase of Johannesburg's Rea Vaya project: trunk routes



First phase routes will run from Lenasia in the south west to Sunninghill near Rivonia in the north. It will have spurs taking in Baragwanath, Dobsonville, Eastgate, Jabulani in the heart of Soweto, Alexandra, and Randburg. It will have a route through the CBD, but also one that connects Soweto to the northern suburbs via Melville, avoiding the CBD.

Phase One will require 1190 buses, including 427 18.5 meter trunk buses with a capacity of 90 passengers each, 413 8.5 meter feeder buses with a capacity of 32 passengers each and 350 13.9 meter buses with a capacity of 60 passengers each. (City of Johannesburg presentation at Department of Transport Roundtable, 28th January 2008).

Modeling done for operational planning indicates that the first phase should be able to operate without operating subsidies at reasonable fare levels, assuming all infrastructure investments are publicly funded.

New bus companies comprising incumbent taxi and bus operators will be contracted to operate the system through 7-12 year performance contracts based on kilometers traveled, not number of passengers. Memoranda of understanding have been signed with both the RTC and Top Six, the two main taxi associations, with a view to their becoming BRT operators. PUTCO and Metrobus have also been engaged informally.

Capital expenditure on the infrastructure for the first phase is envisaged to cost in the region of R2 billion. So far R1029 million has been allocated by national government through the Public Transport Infrastructure and Systems Grant (PTISG) with the city envisaging raising a further amount at this stage of between R242 and R600 million. As of February 2008 preliminary design, detailed design, tendering and construction was

being carried out on 14 sections of the Phase One routes, with detailed capacity and traffic engineering work being done in the inner city.

Fleet will have to be separately financed, with fleet orders needing to be placed in June/July 2008.

Achieving the envisaged completion of phase one in time for the 2010 World Cup will be immensely challenging; however the project is well under way with significant momentum.

One unexpected obstacle was provincial government's sudden announcement of a monorail connecting Soweto to Johannesburg. This would have completely undermined the Rea Vaya project since it would have removed the key market for the system. Fortunately, it appears that the province has backed down on its monorail after national government disapproved of its plans (see below).

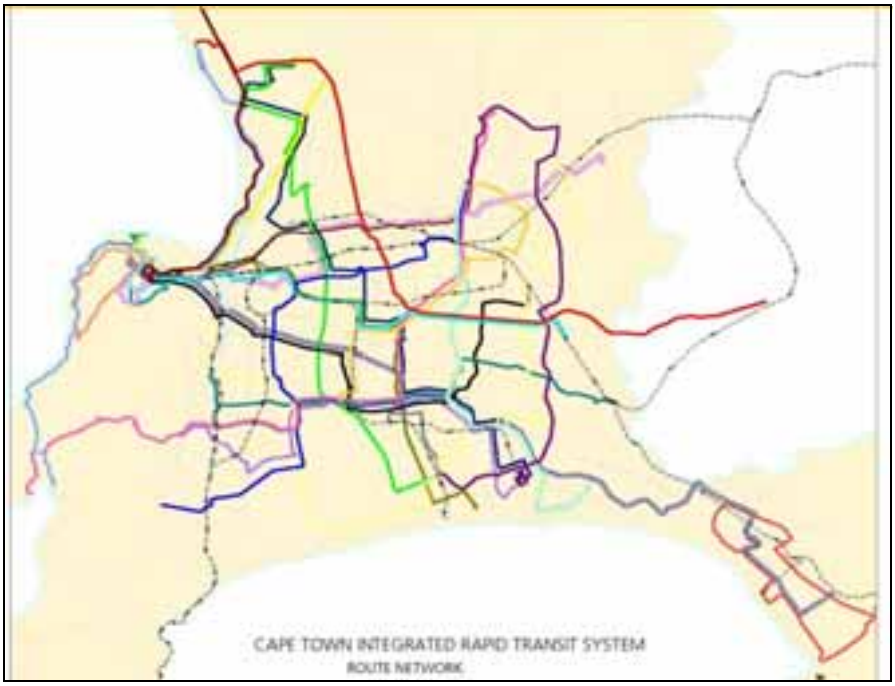
4.5.2 Cape Town's BRT project

Cape Town is somewhat behind Johannesburg with its BRT project, but beginning to make significant progress. The idea was initially put to the council in a workshop in March 2007, where it was supported, but the following six months were spent attempting to gain provincial approval. Eventually, after procuring legal opinions the City concluded that given that 'municipal public transport' was a city function in terms of the Constitution, it was able to work more independently on the matter.

Since then progress has been much quicker. A key international expert has been procured to assist council, operational planning for the first phase (conducted by an experienced international specialist BRT firm) is well underway and the council is expected to award a significant contract for the first phase business planning in the course of March 2008. The scope of Cape Town's first phase will be dependent on the amount of capital that can be procured to finance the infrastructure. In the 2008 budget R866 million was earmarked from the PTISG grant from central government for the first phase of BRT. This will leave a gap which is too large for the city to fund on its own through borrowing; thus further grant funding from National Government will be required. Currently, the bulk of national grants will be paid in the later years of the MTEF, which will too late if the first phase is to be in place in time for the 2010 World Cup.

Of all the major cities in South Africa, Cape Town has probably the most effective rail network. It is envisaged that the new BRT trunk routes are integrated with the rail routes to form a single network. This is illustrated in the diagramme below which shows both the rail and BRT networks. While there is some discussion around extending the rail network, it is much more feasible to extend the system with the BRT network – other than limited rail extensions in some areas. The impact of new railway lines on urban space makes such extensions extremely costly and challenging, and, other than on high volume routes, it will be very difficult for a rail system to ever match the types of service levels which are fairly easily attainable with BRT. Thus it is accepted that rail on its own can never provide the type of network required to ensure an effective public transport system. The following figure shows both the envisaged BRT and rail networks creating a single integrated network.

Figure 4.4: Cape Town's envisaged Integrated Rapid Public Transport Network routes



Cape Town is concentrating its first BRT routes up the northern corridor towards Atlantis. There is very little public transport infrastructure along this route, which is subject to severe traffic congestion in the more southerly stretches. The city hopes to serve both poor and middle class areas with the initial route, including a portion of current motor vehicle users. It is also hoped to create an airport link in the first phase, but this may not be affordable given limitations on funding. The first phase infrastructure is likely to cost well over R2.0 billion. (City of Cape Town presentation at Department of Transport Roundtable, 28th January 2008).

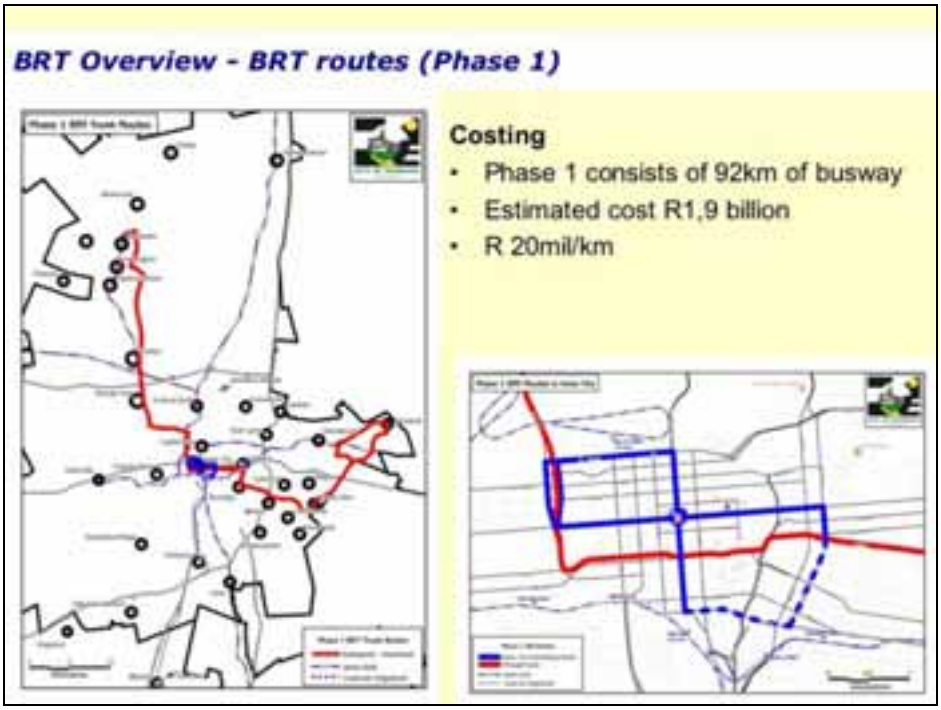
4.5.3 Tshwane's BRT project

Tshwane's BRT project is further advanced than Cape Town's but behind Johannesburg. The city had already developed its strategy on a 'Strategic Public Transport Network' which was approved in January 2007, when the new BRT ideas were presented. This led to an adjustment of the ideas so as to incorporate the BRT approach similar to that adopted by Johannesburg. The new Tshwane Rapid Transit Implementation Framework was approved in May 2007.

The city was expecting to complete a draft operational plan for the first phase in February 2008, with marketing and communications, infrastructure detailed design and electronic fare collection tenders in the pipeline in the near future.

The following figure shows the envisaged first routes for the project. It would consist of 92 kilometers of dedicated busway, which at an envisaged cost of R20 million per kilometer would imply a total first phase infrastructure cost of R1.9 billion.

Figure 4.5: Tshwane's envisaged first phase BRT routes



Tshwane has been fortunate to be awarded a total of close to R1.8 billion from the PTISG for its first phase over the three years to 2010/11, including its BRT based inner city distribution system.

4.5.4 Nelson Mandela Bay Metropolitan Municipality BRT project

Nelson Mandela Bay Metropolitan Municipality (NMBMM), which consists of the Port Elizabeth, Uitenhage and Despatch areas is in the process of integrating BRT concepts into a bus network plan on which it had made considerable progress by 2007.

The bus network plan has been predicated on a curbside system with unenclosed split stations which would thus require on board ticket checking. The city is currently re-assessing some of its decisions in the light of approaches now being adopted by other cities.

Important progress has been made on how to design bus contracting arrangements to service the various areas of the metropole and on network routes, and how to phase infrastructure construction. Various tenders are currently underway on areas such branding and marketing.

There do remain concerns around how the proposed system is to be funded. Total funding for the city from the PTISG for the period from 2007/8 to 2010/11 is R776 million, although not all of this will be directed at the new bus system.

4.5.5 Other cities

Other cities currently investigating the BRT concept include Buffalo City, Mangaung, Polokwane and Mombela.

5 Institutional and financial issues

5.1 Institutional incoherence

It has been noted in the introduction that the two key reasons for a general failure to deliver effectively in the area of public transport over the last 15 years are

- a lack of appropriate skills, and
- a failure to assign responsibility coherently amongst the three spheres of government

As the discussion on policy indicated, addressing transport issues requires an integrated, systemic approach which is dependent upon bringing the various role players together into a single decision making system. However a belief that this can be addressed through 'co-operative government frameworks' involving all three spheres of government has proven ineffective. It is critical that the key locus of responsibility is better defined and that given the need to integrate transport with land use planning and the various other built environment related responsibilities of city governments, it crucial that city governments be viewed as this locus. As has been indicated, this is the position supported by

- White Paper on National Transport Policy, 1996
- Moving South Africa, 1998
- The National Land Transport Transition Act, 2000, including the latest amendments passed by the National Assembly
- Recent national policy statements, including budget statements of the Department of Transport

The current reality, however, remains very different.

While cities are responsible for the management of urban space, including the overall planning function, are in charge of most bus and taxi interchanges, and have considerable responsibility around the maintenance and management of local roads,

- The commuter rail system is the responsibility of the South African Rail Commuter Corporation – recently amalgamated with Metrorail, and falling under the national Department of Transport.

- National government is responsible for the provision of bus subsidies, but manages this through the provinces. Managing the bus subsidy effectively implies designing bus contracts appropriately. Thus, one of the crucial elements in managing public transport operations, ensuring modal integration, and strengthening the cities' densification and corridor-led spatial development frameworks lies not with the cities, but jointly with provincial and national government. Current work being done in this area appears to take little account of the rail system. There are some areas where subsidised buses run along the same routes as municipal services

- Taxi licenses and permits to service particular routes are a responsibility of provincial government, although provinces are supposed to take local

government recommendations into consideration when issuing licences and permits.

- Local government has little jurisdiction over national and provincial roads within its area although many of the routes most critical to intra-metropolitan movement are the national and provincial roads within metropolitan boundaries. Planning for the role of these routes in facilitating intra-metropolitan movement is significantly under-emphasised. This is exacerbated by moves to toll such roads, even within major metropolitan areas.

Two key problems appear to be preventing the intentions of transport policy from being realized. These include

- competition from provinces, who see municipal activity in these areas as a threat, and
- lack of clarity on funding sources

5.1.1 Competition from provinces

A good example of the competition cities face from provinces in attempting to address public transport issues was the Gauteng Monorail project.

Despite the agreement to go ahead with the Rea Vaya project as described above, in May 2007 the MEC for Finance and Economic Affairs in the Gauteng Province announced to the media the launch of a 45 kilometre Monorail to run between Soweto and Johannesburg. He indicated that the project was approved by the Gauteng Province though a memorandum of understanding, that the feasibility study had been concluded and that the project implementation would commence in September, 2007 and become operational during 2009. The Gauteng Economic Development Agency had signed an agreement with a Malaysian consortium, Newcyc Visions, who were to implement the project, which represented a private sector investment of R12 billion.

An independent assessment of the monorail proposal by an international transport organization[5] indicated that the proposal was seriously flawed. The cost per kilometer was an estimated R266.7 million – which is low by normal monorail standards, but more than ten times the R22 million per kilometer of the Rea Vaya proposal. Its viability was claimed to be based on carrying 1.5 million passenger trips per day; yet this is the full number of all existing public transport trips for the whole of Johannesburg rather than just the Soweto to Johannesburg link. And the only similar example of the Malaysian technology worldwide carries only 45000 passengers per day. The project was in many respects more a property development project than a public transport project and was to be funded by giving land to the Malaysian consortium; yet it was not clear whether the land that was envisaged belonged to the province. Of considerable significance was the fact that the feasibility of the Rea Vaya project was greatly dependent upon the Soweto to Johannesburg ridership to make the whole system viable. Competition from the monorail would thus undermine this viability.

The announcement took the City of Johannesburg by surprise. The proposal had not been discussed with them. While no public response was forthcoming from the City of

[5] Viva Foundation (2007) *Monorail technology and Gauteng applications: a critical review*, May 2007.

Johannesburg, a statement was issued by the national Minister of Transport on 23rd May emphasizing that he had had no knowledge at all of the proposal prior to the announcement by the Gauteng Province and that the province had not consulted with, discussed or sought approval from his Ministry for the project. He re-iterated that the lead project for the area was the Rea Vaya project and added that on 7th May he had met the Mayor of Johannesburg together with members of his Mayoral and there was no discussion of the monorail proposal.

Nevertheless, significant political pressure appears to have been placed on the City of Johannesburg to go along with the monorail proposal even subsequent to the statement by the Minister of Transport. While the monorail project is now, itself, no longer seriously raised, the issues that it brought to the fore remain highly relevant.

The extended urban area of Gauteng does present special governance challenges, since some of the key corridors extend across metropolitan boundaries. However, it is likely that this is more effectively addressed through co-operation amongst the three metropolitan governments and the local councils which constitute the urban region, rather than situating responsibility at provincial level. While provincial government would have a facilitating role to play, this would not be nearly as critical as ensuring that transport solutions are locally driven. Such an approach is consistent with the constitution, and national policy positions outlined in section three. Establishing the province as the key locus of responsibility for public transport in Gauteng would create major difficulties in attempting to deal with the detailed land use planning issues inherent in the actual implementation and operation of public transport systems, and the integration between public transport and the general urban fabric.

Somewhat similar competition is evident in the relationship between the Western Cape Province and the City of Cape Town. Currently the province is attempting to restructure the existing subsidised bus operations in a manner which fails to integrate properly with the new city BRT strategy. Repeated attempts over the years to enhance co-operation between province and city have not borne fruit irrespective of the political configurations in both city and province.

One of the key reasons for a failure to devolve responsibility properly arises because of the manner in which inter-governmental relations generally have been configured across most functions. In dealing with issues related to decentralisation there is a tendency for national consultation with provinces to be emphasised. This flows from the prominence of structures such as MINMECS, which naturally strengthen the voice of provinces in the discourse and diminish support for devolution to the extent that this is not supported by provinces.

This is one of the issues which is being addressed in the current White Paper process on provinces, extending across all functions and not just transport.

5.2 Budget and financial flows

The second area undermining progress is the lack of clarity on funding flows. While some municipalities have run municipal bus services in the more affluent areas, historically public transport has not been a major spending area for municipalities. Given the lack of clarity about where responsibility for public transport properly lies it is difficult to envisage cities taking on new initiatives in the absence of clear funding streams.

It is noteworthy that once National Treasury took the initiative to establish the Public Transport Infrastructure and Systems Fund cities began to respond fairly rapidly with creative public transport solutions.

However the model whereby cities are dependent upon grants from national government to fund public transport is not a satisfactory one. Far better would be for cities to be provided with a funding source, such as a share of the fuel levy, or a local business tax where they have a predictable stream of revenue related to local economic activity out of which they can prioritise projects. This is likely to lead to a far more effective allocation of scarce financial resources. In the 2008 Budget Review (National Treasury 2008b) it was indicated that National Treasury is considering devolving a share of the fuel levy to municipalities. However this is intended as a replacement to the old Regional Services Council levies. Transport funding to finance locally controlled public transport networks would need to be in addition to this. It may be that a sufficiently large proportion of the fuel levy could be devolved to serve both purposes. This issue needs close monitoring.

6 Conclusion

This paper has sought to review developments in public transport since the advent of democracy in 1994 with an emphasis on metropolitan and city public transport. It has shown how, despite sound strategy and policy formulation in the early years, and well crafted legislation flowing from this, performance in the area of public transport has been poor.

This has been attributed, firstly, to a lack of appropriate skills required to drive the very complex process of reform entailing skillful management and regulation of a variety of stakeholders in a relatively volatile environment. But secondly, it has been shown how the failure of government to allocate responsibility for public transport clearly to city government – as required by repeated policy documents – has led to poor decision making across a number of areas. Instead of integrated approaches which strategically combine land use configuration with transport infrastructure investments and focus decisions on resource allocation in a manner which can make sensible trade-offs, public transport has been dominated by a variety of supply side projects which represent poor prioritization of resources – of which the Gautrain is the best example. The failure to allocate responsibility has also exacerbated the absence of skills, since there has been no clarity around which organs of state have the responsibility to develop those skills.

There are, however, grounds for optimism. After the creation of the Public Transport Infrastructure and Systems Fund which makes capital grants for public transport directly available to municipalities, and the impetus given by the 2010 World Cup, there has been a rapid emergence of creative new public transport initiatives which appear finally to hold the key to a thorough transformation of public transport across the cities. The Johannesburg Rea Vaya project has led this new wave, but there are other cities, including Tshwane, Cape Town, Nelson Mandela Bay, Buffalo City, Mangaung, Mombela and Polokwane which are following this lead. The new initiatives are receiving reasonably good support from national government.

These developments co-incide with a growing awareness of the need to improve the workings of the inter-governmental system as demonstrated by the White Paper process on the Future of Provinces and the Review of Local Government. Thinking in these processes appears to be consistent with the greater understanding of the necessity to develop a more coherent approach to devolution in the public transport area.

There is much to be done, including the decentralization of Metrorail in a manner which places planning responsibilities much more clearly in the hands of the cities while allowing for economies of scale on the operational side; the devolution to cities of a revenue stream or streams to fund public transport rather than continuing to rely on grants from central government; the design and adoption of an effective governance model for Gauteng which recognizes both the reality of the extended city region as well as the need to locate public transport decisions at the city level in order to ensure close synergy with detailed land use planning and management of the urban fabric; and practical support for the demanding process of turning the new thinking on Integrated Rapid Public Transport Networks into reality.

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