10

Roads

Introduction

South Africa's road infrastructure is relatively well developed compared to most sub-Saharan African countries and even by international standards, particularly in the urbanised areas. Road infrastructure supports both domestic and regional needs and is an effective catalyst for spatial development, and the development of business and residential areas. Road infrastructure also facilitates the mobility of goods and people. Road infrastructure provides connections to the external world, and specifically, access to markets and public services, such as ambulances and police services. The building of roads creates jobs, especially if labour intensive methods are used, which helps alleviate poverty and unemployment.

Road infrastructure supports domestic and regional needs and is an effective catalyst for spatial development, and the development of businesses, transport systems and human settlements

The 2010 FIFA World Cup was a catalyst for developing road infrastructure, particularly in the host cities. However, much more development still needs to take place. Social and economic development is constrained where there is a lack of reliable access to services, materials and markets for people and firms. Roads infrastructure is key to this access. This requires not only the installation of a road, but also its regular maintenance to ensure that access is sustained.

Roads are expensive to develop and maintain. According to the Centre for Scientific and Industrial Research (CSIR), the total asset value of South African roads in 2010 has been estimated at R1 trillion, with the value of the paved road network probably making up about 80 per cent of this (about R800 billion). New roads and major repairs of existing roads typically cost about R3.5 million per kilometre for a lightly trafficked paved rural road, while constructing and maintaining heavy freeway structures can cost tens of millions of rands per kilometre.

Roads are expensive to develop and maintain

Government in all spheres is responsible for funding the maintenance of the current road infrastructure, as well as providing new roads where necessary. Yet there is ample evidence pointing to road and storm water infrastructure not being maintained adequately, and this is worsened by the continual increase in traffic volumes and heavy rains. It is essential that the enormous value of the country's roads assets are not allowed to deteriorate further, as the costs of restoration would be extremely high.

Road construction at the provincial and local level needs to be informed by projected mobility and settlement patterns, which take into account plans for key economic nodes and spatial development. This should become an intrinsic part of integrated planning and development by all spheres of government. Municipalities need to enhance their capacity to effectively perform their role in relation to roads. Municipalities' integrated transport plans should provide a long term vision of local mobility, as a guide to the investment in and maintenance of road infrastructure. Municipalities also need to increase their investments in storm water management systems, especially in urban areas to mitigate incidences of flooding that are likely to be associated with the extreme weather conditions associated with climate change.

This chapter gives an overview of:

- the institutional arrangements for roads
- the state of the country's roads
- funding and expenditure on road infrastructure and maintenance
- policy and funding developments in the roads sector.

Institutional arrangements for roads

Schedules 4 and 5 of the Constitution outline the various transport and road infrastructure functions of the different spheres of government. In terms of Part A of Schedule 5 of the Constitution, provincial roads and traffic are an exclusive provincial function, while municipal roads, traffic and parking are municipal functions in terms of Part B of Schedule 5. Municipalities are responsible for investments in local infrastructure, including the construction and maintenance of roads and streets that are within their jurisdiction and proclaimed as municipal roads.

The national Department of Transport plays a largely facilitative and regulatory role. It is responsible for the development of policy and the legislative framework that is implemented through provincial departments, local government and public entities. The main transport policies are spelt out in two key policy documents – the 1996 White Paper on National Transport Policy, and the Moving South Africa document, which emanated from the white paper and sets out an integrated strategy for improving and maintaining transport infrastructure in South Africa.

Effective institutional arrangements and proper coordination remain a challenge in road infrastructure delivery due to the broad constitutional assignment of functions for roads. The challenge emanates from the fact that national roads pass through provincial and municipal areas and provincial roads are located within municipal areas. The expansion of a road network needs to be communicated across all spheres to achieve alignment within the context of integrated road and transport planning. National, provincial and local government, as well as their associated agencies, each have responsibilities for sections of the road network. Excellent capacity and capability exist in the national road authorities (the South African National Roads Agency Limited (SANRAL)) and limited capacity at some provincial and local roads authorities, with the exception of metros and secondary cities. While SANRAL has managed to build and retain expert technical staff over the years, this has not been the case in other public sector agencies. Coordination between the provincial and municipal spheres, from both technical and political perspectives, is far from perfect.

Effective institutional arrangements and proper coordination remain a challenge in road infrastructure delivery

Generally, municipal infrastructure departments have a roads and storm water unit, which has capacity to carry out routine maintenance. Some municipalities have the capacity to also handle light construction activities. However, large rehabilitation and new infrastructure projects generally get outsourced to private sector civil engineering firms. Some metros have dedicated entities to focus on roads such as the Johannesburg Roads Agency, which is responsible for the management of over 10 000 km of paved roads, 1 040 km of gravel roads (excluding informal settlements) and 60 000 storm water channels and waterways. The entities themselves generally also outsource new infrastructure design and large rehabilitation projects, as their internal capacity is constrained.

Large rehabilitation and new infrastructure projects generally get outsourced to private sector civil and mechanical engineering firms

The municipal entities sign a service delivery agreement with the municipalities in relation to roads and storm water management. Some of the key required outcomes are construction, maintenance, and management of infrastructure networks associated with roads, storm water, footways, and traffic mobility management. For example, the Johannesburg Roads Agency's core business is to plan, design, construct and maintain municipal roads and road infrastructure within the City of Johannesburg in terms of the service delivery agreement. Politically, the road entities' boards are accountable to the member of the mayoral committee responsible for transportation/infrastructure, who, in turn, reports to the municipal council. The relationship between the council and the agency is based on a performance contract, which is governed by the city's contracting unit. This relationship sometimes poses challenges if the targets set out in the service delivery agreement cannot be supported by the available funding. The contracting city may fail to provide sufficient funding to carry out the agreed mandate and this makes monitoring and accountability difficult. Another issue with agencies is that their organisational structure may duplicate those of the contracting city as most of the entities have finance, human resources, planning directorates over and above their core engineering and technical departments. This results in a large proportion of funding being

The entities are required to carry out construction, maintenance, and management of infrastructure networks associated with roads, storm water, footways, and traffic mobility management

diverted to an entity's non-core functions. Ideally, entities should have large, highly functional technical departments that receive the bulk of the funding.

The state of the country's roads

South Africa's total road network is estimated to be 746 978 km

According to SANRAL estimates (2010), the South African road network comprised some 606 978 km of proclaimed national, provincial and municipal roads and approximately 140 000 km of unproclaimed roads[3] that are predominantly in the rural areas. This gives a total road network of 746 978 km.

When a road is unproclaimed, there are no maintenance and rehabilitation programmes in place

Unproclaimed roads were never formally adopted by a particular sphere of government as part of its official network. Legally, no authority can spend money on roads that are not proclaimed. This means that many people living in rural areas, which is where the unproclaimed roads are, do not have access to roads that are maintained by one or other sphere of government. When a road is unproclaimed, there are no maintenance and rehabilitation programmes in place. The lack of reliable roads infrastructure undermines prospects for development in these areas.

Most municipalities lack road management information and decision support systems

Data on the state of the country's roads and the extent of refurbishment and maintenance backlogs in the road network vary due to an out-of-date national public road inventory, which is supposed to be compiled by the national Department of Transport. The department attributes this information lag to the fact that it is reliant on provinces and municipalities to supply information based on their monitoring of roads. The absence of accurate data makes effective analysis difficult. Most municipalities lack road management information and decision support systems, which should assist in decision-making on the construction, maintenance and rehabilitation of roads. Very importantly, this lack of information also hinders accurate budgeting at the local level. This is certainly an area where national government needs to provide support to municipalities.

The condition of the country's roads dropped from a VCI of 65 in 1998 to 46 in 2008

Provincial road authorities and municipalities used to carry out annual studies using the visual condition index (VCI), which expresses the condition of a road from 0 (very poor, requires reconstruction) to 100 (very good). However, most have stopped these surveys, mainly because of a lack of technical capacity and budgets. According to a study by the Automobile Association (2008), the condition of the country's roads dropped from a VCI of 65 in 1998 to 46 in 2008[4]. A VCI score of between 35 and 50 falls within the poor road category, indicating that the 'road has failed and extensive work is immediately necessary to salvage the road'.

[3] Public roads not formally managed by any authority.

[4] A VCI of between 0-35 indicates very poor, requires reconstruction, while 85-100 is very good.

Table 10.1 South Africa Road Network (2010)

Road Authority	Paved (km)	Gravel	Total	Network Split
National Roads	16 170	–	16 170	2%
Provincial Roads	48 176	136 640	184 816	25%
Metros & Municipalities	89 373	316 619	405 992	54%
Unproclaimed Rural Roads		140 000	140 000	19%
Total	**153 719**	**593 259**	**746 978**	**100%**

Source: SANRAL (2010)

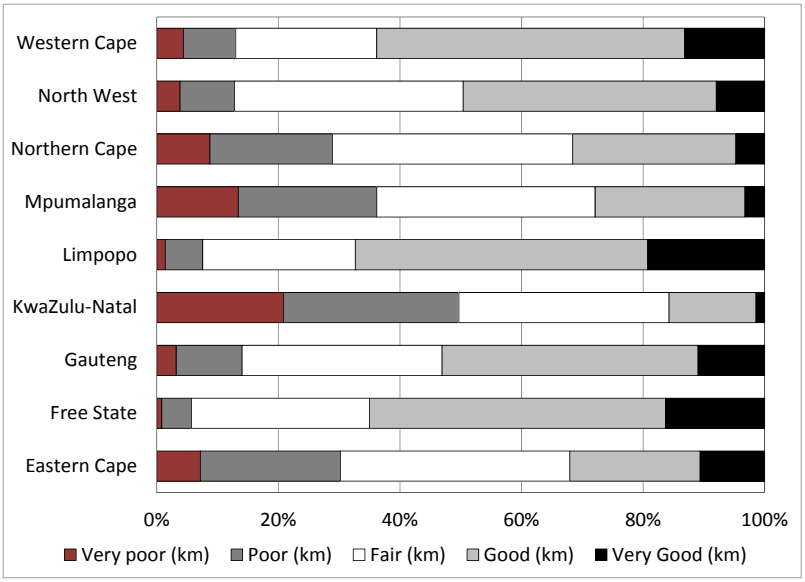
Municipal budgets for maintenance have been less than adequate

Table 10.1 shows that 79 per cent of the roads in South Africa are gravel roads and only 21 per cent are paved. This needs to be taken into consideration when budgeting for maintenance as gravel roads require maintenance more frequently than paved roads. Generally, municipal budgets for maintenance have been less than adequate, averaging at around 5 per cent of property, plant and equipment (PPE) for metros and 3 per cent for the top 21 municipalities. For other municipalities, maintenance averages at around 2 per cent of PPE. (National roads, which are all paved, account for only 2 per cent of the road network and their condition is generally good.)

With an estimated 63 per cent of the proclaimed road network condition not known, it is difficult to quantify maintenance backlogs

It is also estimated that only 37 per cent (222 507 km out of 606 978 km) of the proclaimed roads' condition is known. This means that if 63 per cent of the proclaimed road network condition is not known, so it is difficult to quantify maintenance backlogs. It also implies that road authorities are probably not channelling investments in an optimal and cost-effective way. Asset management systems are important for recording the stock of infrastructure owned, as well as its worth and condition. This provides guidance on whether the asset should be maintained, rehabilitated or replaced, and also helps to estimate the budget requirements and ensure long-term affordability. However, the national Department of Transport estimates that 66 000 km (as at 2009/10) of secondary roads are in either poor or very poor condition. Figure 10.1 summarises the state of paved roads per province.

Figure 10.1 State of the paved roads per province



Source: SANRAL 2010

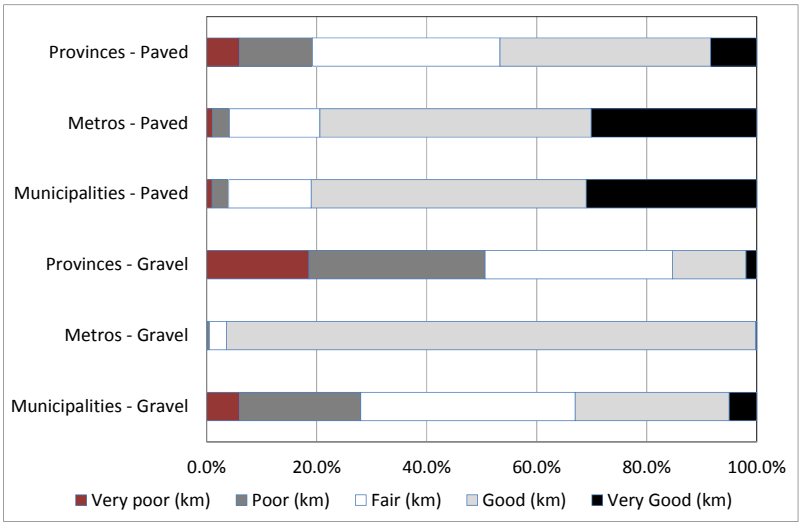
The provinces that have a significant portion of their road network in a very poor state include KwaZulu-Natal (22 per cent), Mpumalanga (15 per cent), Northern Cape (9 per cent) and Eastern Cape (7 per cent).

Financial and planning constraints have contributed to considerable parts of municipal access roads (including unproclaimed roads) being among the poorest in the world

Severe financial constraints, coupled with structural damage caused by road freight activities in major haulage corridors and consequent inefficiencies in road infrastructure delivery, have contributed to the inability of many provincial authorities to maintain the quality of the provincial transport system. This problem is further exacerbated at the municipal level, where financial and planning constraints have contributed to considerable parts of municipal access roads (including unproclaimed roads) being in very poor condition, a factor that denies many rural communities access to opportunities.

According to a 2008 Automobile Association report that provides a review of South Africa's national and provincial roads over 20 years, only 7 per cent of the country's rural road surfaced network was deemed to be in a poor or worse state in 1998 (in terms of VCI). However, recently published data by SANRAL (2010) indicates that the proportion of paved provincial and national roads in a poor or worse condition now constitutes nearly 20 per cent of the paved road network. Figure 10.2 shows the condition of roads under the different jurisdictions.

Figure 10.2 Summary of paved and gravel road conditions under the different jurisdictions



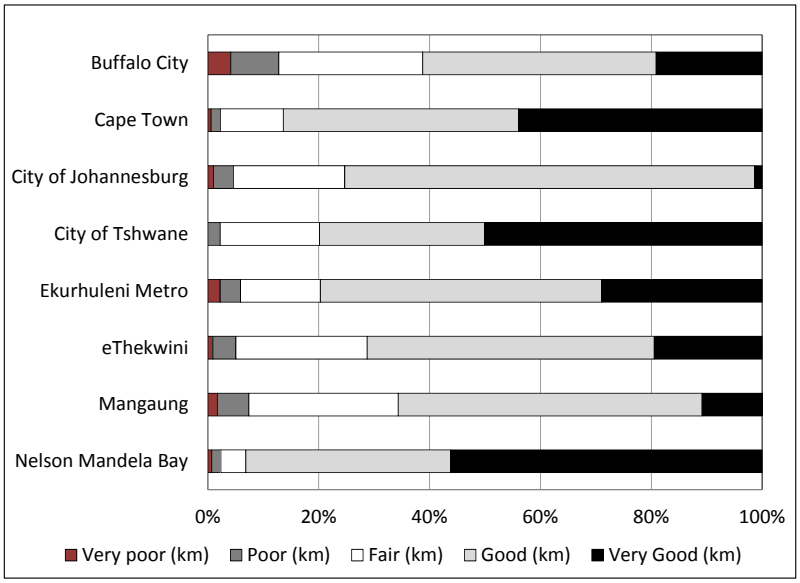
Source: SANRAL 2010

Local government is now responsible for 54 per cent of South Africa's road network. Figure 10.2 shows that almost 80 per cent of the paved roads in metros[5] and over 82 per cent in other municipalities are in good and very good condition. The state of gravel roads in metros is generally good, while 30 per cent of gravel roads in municipalities are in bad condition. 50 per cent of gravel roads under provinces are in very bad condition, while 35 per cent are in a fair state.

[5] SANRAL's classification comprises nine metros (Johannesburg, Tshwane, Ekurhuleni, eThekwini, Msunduzi, Buffalo City, Nelson Mandela, Cape Town, Mangaung and Mogale City).

Figure 10.3 shows that Nelson Mandela Bay metro has nearly 85.7 per cent of its paved road network in very good and good condition, followed by Cape Town (85.2 per cent) and Tshwane (79.7 per cent). Johannesburg has only 1.1 per cent of its paved road network in very good condition and 62.9 per cent in a good condition.

Figure 10.3 State of the paved roads in metros



Source: SANRAL 2010

Potholes

The increase in pothole damage is due to reduced preventative maintenance and an increase in the number of heavy vehicles

Over the past few years, the emergence of potholes in South African roads has accelerated considerably, leading to serious concern among road users and widespread media coverage. The increase in pothole damage can be attributed primarily to reduced preventative maintenance and the rapidly increasing numbers of heavy vehicles. The actual costs of potholes in South Africa in terms of damage to vehicles and accidents caused directly by the presence of potholes and other road-user effects have not been quantified. However, the study by the South African Road Federation estimates that potholes are costing motorists R50 billion in vehicle repairs and injury every year.

Vehicle population and the impact on roads

Even with slower growth in recent years, the number of new vehicles puts pressure on the already straining road infrastructure

One effect of the strong economic growth experienced in South Africa between 2000 and 2008 has been an increasing number of vehicles on the roads. However, growth started to slow with the onset of the economic downturn in late 2008. Between 2008 and 2009, nearly 284 000 new vehicles were registered, 244 000 being motorised and 40 000 towed vehicles[6].

[6] These include caravans, and light and heavy trailers.

Table 10.2 Vehicle population per province, 2008 and 2009

	2008			2009		
Province	**Motorised**	**Towed**	**Total**	**Motorised**	**Towed**	**Total**
Eastern Cape	576 015	61 278	637 293	595 622	64 207	659 829
Free State	447 083	77 620	524 703	459 991	79 714	539 705
Gauteng	3 220 050	355 522	3 575 572	3 309 076	371 083	3 680 159
KwaZulu-Natal	1 177 105	103 217	1 280 322	1 201 536	106 554	1 308 090
Limpopo	395 122	41 171	436 293	423 428	44 262	467 690
Mpumalanga	496 568	71 426	567 994	531 682	76 995	608 677
Northern Cape	176 572	29 329	205 901	183 376	30 850	214 226
North West	459 311	66 641	525 952	471 298	69 489	540 787
Western Cape	1 409 741	140 743	1 550 484	1 424 024	144 598	1 568 622
Total	**8 357 567**	**946 947**	**9 304 514**	**8 600 033**	**987 752**	**9 587 785**

Source: Road Traffic Management Corporation

As table 10.2 shows, as at December 2009, South Africa's motor vehicle population stood at 8.6 million and towed vehicles at 988 000, bringing the total to close to 9.6 million vehicles. This amounts to a 3 per cent increase, which is much lower than the 7 per cent increase experienced between 2005 and 2007. This decline is due to the effects of the recession. By 30 June 2010, the total number of registered vehicles had increased to only 9.7 million, with only 100 000 new vehicles registered in the first half of the year. As the economic climate improves, the rate of new vehicle purchases is increasing.

Between December 2008 and December 2009, the number of heavy vehicles grew by 1.3 per cent or some 4 000 units and that of heavy trailers grew by 1.4 per cent of some 2 000 units. The increases were much smaller than in the previous years due to the effects of the global recession. In 2010, the motor vehicle industry started showing significant signs of recovery. In spite of the slower growth rate, as heavy vehicles' wear and tear impact on roads is far greater than that of light vehicles, future maintenance needs are nevertheless significant, particularly for municipal roads.

At least 80 per cent of new registrations are in the light vehicle category, which are generally privately owned

At least 80 per cent of new registrations are in the light vehicle category, which are generally privately owned. This rapid growth in the number of this category of vehicle has resulted in increasing congestion problems.

In terms of provinces, Gauteng contributes over 37 per cent of the total vehicle population in South Africa, even though it has the smallest share of the road network. This means that the municipalities in Gauteng that are responsible for the greatest proportion of the roads in the province are under a lot of pressure in relation to roads infrastructure. For example, traffic between Johannesburg and Pretoria is much heavier than the roads were originally designed to carry. It is reported that the N1 between Johannesburg and Pretoria now carries 250 000 vehicles a day, which is almost double the amount of vehicles it was designed to carry, prior to the recent upgrading. Traffic congestion is also a growing problem in Cape Town and Durban.

Municipalities need to try to mitigate the costs associated with rising private vehicle usage

If improvements to existing roads infrastructure challenges are not tackled in a resolute way, municipalities will find that the growth in private motor vehicle usage will increasingly become a problem. There are essentially three ways in which municipalities (and government) can begin to mitigate the costs associated with rising

private vehicle usage. First, in the short term it can extend, enhance and maintain the existing road network. Second, it can encourage a shift away from private vehicle usage to public transport. This can only be done by addressing safety concerns associated with public transportation and ensure that existing public transport modes are convenient in terms of location. Third, over the medium to long term it can encourage more integrated and sustainable human settlement patterns that encourage people to live closer to their places of employment and where land uses are mixed. Developing an integrated, safe, customer-oriented public transport system supported by a good roads infrastructure is essential.

Road safety

Vehicle overloading and breaches of road safety regulations continue to be major problems

Vehicle overloading and breaches of road safety regulations continue to be major problems despite enforcement efforts. Overloading causes premature road deterioration and, together with speeding and bad driver behaviour, inadequate vehicle maintenance and driver fatigue, all contribute to South Africa's poor road safety record.

In 2009, the country recorded approximately 498 000 traffic accidents, 46 500 serious injuries and 13 768 traffic fatalities, of which 4 678 were pedestrians.

Challenges faced by municipalities

Some of the problems that municipalities need to address in managing the roads and storm water infrastructure include:

- *Inappropriate prioritisation in allocating budgets*: Prioritisation of new infrastructure happens at the expense of maintaining existing assets.
- *Maintenance budgets:* These are often treated as discretionary budget line items and are the first to be cut to realise savings. Municipalities need to be constantly investing in the refurbishment of their infrastructure and ensuring that aging assets are upgraded timeously.
- *Non-integrated housing developments:* These occur because provinces are not working closely with municipalities to plan the location of new housing developments, as a result houses get built where the support road infrastructure does not exist.
- *Excavations by other service providers and illegal practices:* These excavations damage the road infrastructure, as does overloading of heavy transport vehicles.
- *Loss of key technical staff:* Often key staff are not replaced or they are replaced by less qualified staff. A recent survey by the South African Institute of Civil Engineering revealed that 79 of the 231 local municipalities had no civil engineers, technologists or technicians on their permanent staff.
- *Lack of asset lifecycle planning capability:* Maintenance of roads and storm water infrastructure is mainly done on an ad-hoc basis as there is no proper base for planning and budgeting for planned maintenance of infrastructure.

Funding and expenditure on road infrastructure and maintenance

Funding the municipal roads network

Municipalities might therefore decide to use a portion of the local equity share to finance road infrastructure projects

Municipalities receive intergovernmental transfers in line with the Division of Revenue Act and this includes the local government equitable share, which is an unconditional grant. Municipalities might therefore decide to use a portion of the local government equity share to finance road infrastructure projects, guided by their own needs and priorities. Municipal internally generated funding should also be used to finance roads infrastructure.

For many municipalities, the most significant source of road infrastructure funding is the municipal infrastructure grant

For many municipalities, the most significant source of road infrastructure funding is the municipal infrastructure grant (MIG). The grant is aimed at assisting municipalities to deliver basic infrastructure to poor communities. Another major source of funding road infrastructure at the municipal level is the public transport infrastructure and systems grant (PTIS), which is a conditional grant administered by the Department of Transport. The grant provides for the planning, establishment, construction and improvement of new and existing public transport infrastructure and non-motorised transport infrastructure systems.

For many of the poor and rural municipalities, the public works programmes implemented by both national and provincial departments of public works serve as an important means of developing roads within their jurisdictions, as illustrated in the Zibambele case study.

Zibambele – KwaZulu-Natal Department of Transport Initiative

The Zibambele programme in KwaZulu-Natal aims to involve local people in road maintenance. It has been very successful in this regard The fact that the programme is being replicated in Mpumalanga and Eastern Cape, with a number of municipalities now formally participating, is an indication of its success.

Zibambele is a routine road maintenance programme using labour-intensive methods. Instead of appointing a firm to do the maintenance, Zibambele appoints households, who are responsible to:

- Maintain the road drainage system
- Ensure good roadside visibility
- Maintain the road surface in good condition
- Clear the road verges of litter and noxious weeds

Zibambele emerged as a plan to create jobs and other income-generating opportunities, while simultaneously addressing the apartheid legacy of inadequate mobility for rural communities. The initiative was adopted as one that could place rural economies on a labour-absorptive growth path. The main objectives of the programme are to:

- Maintain the province's rural road network
- Provide destitute households with regular income
- Put the long-term unemployed to work
- Promote gender affirmative opportunities
- Improve the life chances of Zibambele households through: providing work; training; better nutrition; obtaining identity documents and access to banking facilities; experiencing the dignity of employment; and becoming involved in further economic activities.

In its first year in 1999/2000, 2 700 households were employed as contractors. The number is expected to rise to 40 000 in 2010/11. In its first year 11 000 km of rural road was maintained compared to 25 000 km that is expected in 2010/11. Expenditure on the programme was R5.6 million in 2006/07 and this is expected to increase to R31.3 million in 2010/11.

Source: KwaZulu-Natal Department of Transport 2010/11 annual performance plan

Road maintenance initiatives through the expanded public works programme

The expanded public works programme is a government wide programme that focuses on the creation of work opportunities through infrastructure delivery. The programme provides dedicated resources to provincial and local governments for, among others, labour-intensive programmes such as road construction and maintenance, and the development of permanent capacity for the maintenance of infrastructure on a sustainable basis.

Municipalities have not taken enough advantage of the expanded public works programme for road infrastructure and maintenance projects

To date, municipalities have not taken significant advantage of the expanded public works programme, implementing around 13 per cent of the projects (2 266 out of 16 869 projects) as table 10.3 shows. The bulk of municipal activities has been in the infrastructure sector, of which road construction is a significant component and is estimated to account for 65 per cent of the infrastructure sector projects. These projects are often aligned with MIG funding, with 1 866 infrastructure projects reported in 2008/09 out of 2 266 municipal projects (or 82 per cent of the sector total).

Table 10.3 Projects per sector and sphere of government

Sector	Municipal	National	Provincial	Total
Economic	116	4	234	354
Environment and Culture	230	897	250	1 377
Infrastructure	1 866	5 404	2 333	9 603
Social	54	–	5 481	5 535
Total	**2 266**	**6 305**	**8 298**	**16 869**

Source: Expanded Public WorksProgramme, Five Year Report 2004/05-2008-09

The total infrastructural output across the country was the development and maintenance of over 37 000 km of roads, 31 000 km of pipelines, 1 500 km of storm water drains and 150 km of sidewalks through the expanded public works programme infrastructure projects.

Municipal expenditure on roads infrastructure and maintenance

Maintaining the municipal roads infrastructure includes routine maintenance, upgrading and rehabilitation activities, all of which require planning and adequate budgets.

Metros account for 71 per cent of all municipal roads expenditure

It is difficult to get a clear picture of consolidated municipal expenditure on roads infrastructure (including storm water infrastructure) and maintenance, due to the previous budgeting reporting formats. The current reporting requirements have been refined to allow for more detailed breakdowns. In 2008/09, total provincial and municipal roads infrastructure expenditure was R20.1 billion. Of this, municipalities spent R7.3 billion or 36 per cent and provinces spent R12.8 billion or 64 per cent. Of the R7.3 billion spent by all municipalities, metros account for R5.2 billion, or 71 per cent of all municipal roads expenditure. For the smaller municipalities, the fact that expenditure on roads and storm water infrastructure is as low as R200 000, is an indication that this is not being prioritised.

Metros' and secondary cities' expenditure on roads infrastructure and maintenance

Table 10.4 shows that road infrastructure budgets increased from R1.8 billion in 2006/07 to R6.4 billion in 2009/10, and are set to decrease to R3.6 billion in 2010/11 before increasing to R5.8 billion in 2011/12. Generally the low level of spending in the outer year of MTREF by most metros suggests that these budgets are not based on sound forward planning of projects. The rapid increase between 2006/07 and 2009/10 was largely driven by developments for the 2010 FIFA World Cup, as five of the six metros were host cities.

Table 10.4 Metro roads infrastructure expenditure, 2006/07 – 2012/13

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	% Ave annual growth	
		Outcome		Estimate	Medium-term estimates			2006/07 - 2009/10	2009/10 - 2012/13
Rthousands									
City of Cape Town	255 533	385 761	747 859	1 588 087	870 504	1 335 457	779 116	83.9%	-21.1%
City of Johannesburg	298 033	180 100	1 352 672	1 381 806	245 193	1 358 371	994 022	66.7%	-10.4%
City of Tshwane	234 192	438 469	561 732	525 780	485 065	561 621	521 401	30.9%	-0.3%
Ekurhuleni	397 391	389 691	1 003 577	575 628	437 580	399 906	370 766	13.1%	-13.6%
eThekwini	415 389	635 141	822 635	1 405 087	675 502	740 580	692 510	50.1%	-21.0%
Nelson Mandela Bay	207 732	348 280	695 415	875 287	898 856	1 402 190	1 516 143	61.5%	20.1%
Total	**1 808 270**	**2 377 442**	**5 183 890**	**6 351 675**	**3 612 699**	**5 798 125**	**4 873 958**	**52.0%**	**-8.4%**

Source: National Treasury local government database

Johannesburg's roads infrastructure expenditure and budgets vary widely from year to year. This points to poor planning of projects. Over the MTREF, Johannesburg has budgeted to spend R2.6 billion on roads infrastructure. This is less than Nelson Mandela Bay (R3.8 billion) and Cape Town (R3.0 billion), both of whose road networks are less extensive and in far better condition than those of Johannesburg.

Table 10.5 shows that the road infrastructure budgets for the 21 secondary cities

Table 10.5 Secondary cities roads infrastructure expenditure, 2006/07 – 2012/13

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
		Outcome		Estimate	Medium-term estimates		
Rthousands							
Buffalo City	42 405	64 409	83 519	152 396	95 600	122 867	141 019
City of Matlosana	29 769	–	58 382	47 269	46 066	63 257	56 757
Drakenstein	7 010	12 187	15 235	17 202	29 096	30 922	28 532
Emalahleni	12 059	36 986	36 829	27 503	–	–	–
Emfuleni	55 542	17 515	12 200	102 638	57 257	–	–
George	79 042	452	189	–	23 885	42 330	44 250
Govan Mbeki	7 331	–	15 045	9 537	44 570	28 500	29 000
Madibeng	24 410	26 378	–	–	44 400	47 064	49 888
Mangaung	80 702	70 822	82 651	125 064	100 552	129 413	139 616
Matjhabeng	3 892	–	–	–	33 442	63 409	93 381
Mbombela	25 994	40 542	51 926	38 424	41 593	–	–
Mogale City	479	–	23 970	23 970	27 625	37 660	69 342
Msunduzi	26 565	69 891	119 262	21 811	36 315	63 837	56 996
Newcastle	25 486	18 165	27 619	107 152	53 790	20 000	20 000
Polokwane	–	32 258	49 772	181 853	202 067	96 000	92 000
Rustenburg	49 676	40 480	–	22 692	140 068	7 000	7 000
Sol Plaatje	17 331	39 673	27 146	40 012	20 900	4 200	7 225
Stellenbosch	12 687	15 198	20 365	25 400	24 599	7 600	9 070
Steve Tshwete	21 703	47 191	58 521	65 490	69 133	65 728	72 892
Tlokwe	19 210	6 377	13 940	–	44 526	32 631	20 144
uMhlathuze	59 435	48 552	64 968	41 208	15 846	14 079	47 613
Total	**600 728**	**587 076**	**761 539**	**1 049 621**	**1 151 331**	**876 497**	**984 725**
Percentage growth (average annual)		**2006/07 – 2009/10**				**2010/11 – 2012/13**	
		20.4%				*-7.5%*	

Source: National Treasury local government database

The above table shows that secondary cities' spending increased by 20.4 per cent annually between 2006/07 and 2009/10, but is set to decrease by 7.5 per cent per year over the medium term. While most of the secondary cities' integrated development plans (IDPs) list roads and storm water upgrading as an important priority, roads infrastructure budgets over the MTREF period are actually decreasing. This reflects a serious misalignment between planning and budgeting.

Policy and funding developments in the roads sector

In the execution of its mandate, the Department of Transport has identified the following strategic priority outcomes and key policy developments for the medium term in relation to roads:

- *Development of an effective and integrated infrastructure network that serves as a catalyst for social and economic development:* This will be achieved by ensuring maintenance and the strategic expansion of the road network.
- *Development of road asset management and preservation policy:* This will begin in 2011/12 to effectively support the implementation of the road infrastructure strategic framework of South Africa. Furthermore, it will ensure that road authorities conduct road condition surveys regularly and use road asset management systems in planning for investments. This will allow optimum decisions to be taken on increasing the asset lifespan of roads, reducing transport costs, and improving accountability and expenditure outcomes.

The government plans to spend a total of R22.3 billion rand on the S'hamba Sonke project (its road construction and maintenance plan) over the next three years. This amount, however, is inadequate. The Department of Transport is moving towards striking a balance between road construction and maintenance in line with the international benchmark of 40 per cent construction and 60 per cent maintenance.

To support the initiatives of the Department of Transport, the Minister of Public Works launched a R150 million project in March 2011 to address potholes across the country by cooperating with provinces. This initiative will be delivered through the expanded public works programme.

Conclusion

Current funding available for roads and storm water infrastructure is insufficient for meeting existing maintenance and rehabilitation requirements in the sector. There is therefore a need for reprioritisation on municipal budgets to effectively deal with its core services and manage competing needs. To strike a balance remains a critical challenge for most municipalities as there is always a gap between conditions on the ground and the councils' priorities. If improvements to the existing roads infrastructure are not tackled in a

robust way, either by increasing budget allocations or making effective use of expanded public works programmes, municipalities will be faced with increasing backlogs which will further compromise general service delivery and undermine economic growth. Furthermore, municipalities should increase their investments in storm water channels, especially in urban areas, to mitigate flooding and the associated damage. Ideally, municipalities' integrated transport plans should provide a long term vision of road infrastructure that facilitates mobility. This will inform sound decision-making relating to investment in and maintenance of road infrastructure.