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Roads and transport

■ Introduction

Transport systems connect citizens to places of work, schools, health care facilities and other social amenities and services. Transportation is key to sustainable economic growth in any country.

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The NDP 2030's vision for transport is for South Africa to have "a transport system that supports economic development, job creation and growth, provides equitable access to opportunities and services for all and reduces poverty. This includes the provision of sustainable transport services that are efficient and inclusive, and inextricably linked to the need for spatial change in South Africa's cities and related transport corridors".

The roads and transport sector is guided by Outcome 6 of the MTSF which seeks to promote "an efficient, competitive and responsive economic infrastructure network". There are three main areas in which provincial governments play a critical role in this sector:

Delivery and maintenance of provincial roads infrastructure: Construction and maintenance of transport infrastructure contribute to job creation and poverty reduction and supports the development of small and emerging contractors.

Public transport services: Provinces provide public transport such as commuter bus services. They also issue vehicle operating licences and provide public transport infrastructure on provincial roads. Government subsidises public transport (bus and rail) to make it affordable for the poor and unemployed.

Numerous road safety interventions are being implemented in provinces with the aim of curbing road accident fatalities in South Africa.

Safety and law enforcement: Provinces are responsible for transport safety and traffic law enforcement. Numerous road safety interventions are being implemented in provinces with the aim of curbing road accident fatalities in South Africa. However, challenges remain.

Over the 2020 MTEF, provincial government spending in these three areas (excluding special projects such as the Gautrain) amounts to R123.4 billion. About R81.1 billion will be spent on the delivery and maintenance of transport infrastructure, R25.5 billion on public transport subsidies and R16.8 billion on transport safety and law enforcement. These areas and their associated challenges and interventions are discussed in detail in the relevant sections below.

This chapter reviews the current roads and transport landscape, discusses budget and expenditure trends and presents the medium-term outlook for the sector.

Current landscape

Institutional arrangements

The Constitution of the Republic of South Africa (1996) (Constitution) assigns various transport and road infrastructure functions to different spheres of government. Part A of Schedule 4 of the Constitution indicates that public transport, road traffic regulation and vehicle licensing are concurrent functions of national and provincial legislative competence; Part B covers municipal public transport. In terms of Part A of Schedule 5, provincial roads and traffic are an exclusive function of provincial legislative competence while municipal roads, traffic and parking are municipal functions in terms of Part B of Schedule 5.

The Road Infrastructure Strategic Framework for South Africa (RISFSA), approved by Cabinet in 2006, provides policy direction for the planning and development of road infrastructure. The key strategic aim is to ensure that the road network is delivered and maintained in an integrated manner. The RISFSA road classification system considers the importance of each road in the network and its contribution to achieving the country's economic and social objectives.

South Africa's total road network is estimated at 750 000 kilometres, the longest of any African country and the tenth longest in the world. According to the South African National Roads Agency Limited (SANRAL), the network is valued at more than R2.1 trillion. The Department of Transport (DoT) is responsible for overall policy formulation for the sector. Responsibility for building and maintaining the network is divided between SANRAL and provincial and local government authorities.

South Africa has the tenth longest road network in the world, valued at more than R2.1 trillion.

SANRAL manages national roads and has a network of 22 197 kilometres of paved roads. Provinces are responsible for 222 951 kilometres while, according to the DoT, the municipal network is estimated at 275 661 kilometres of the proclaimed network. The rest are unproclaimed gravel roads (mainly serving rural communities) and are therefore not owned or maintained by any road authority.

The National Land Transport Act (NLTA) (2009) and the Public Transport Strategy (2007) are the guiding documents for public transport in South Africa. The Public Transport Strategy aims to achieve accelerated implementation of integrated public transport networks (IPTNs) in metropolitan cities, smaller cities and rural districts. The strategy plans to transform and integrate rail, taxi and bus services and to implement integrated fare structures through a common electronic fare system on all modes on the network. The Bus Rapid Transit (BRT) public transport system is being operated in the cities of Nelson Mandela Bay, Johannesburg, Tshwane, Ekurhuleni, Cape Town and Rustenburg.

In terms of the NLTA, provinces are responsible for formulating their transport policies and strategies; planning and coordinating transport functions in their provinces; preparing provincial land transport frameworks; and capacitating municipalities that lack capacity and resources to perform their land transport functions. Provinces and municipalities may also enter into intergovernmental relations agreements to jointly perform land transport functions or establish provincial or municipal entities to perform this function.

The Road Traffic Management Corporation (RTMC) is the lead agency for road safety in South Africa and is increasing education and enforcement initiatives on roads. In cooperation with the RTMC, the South African Police Service (SAPS) and metropolitan police departments, the provinces are responsible for traffic law enforcement including monitoring road behaviour, operating traffic control centres, setting up roadblocks and issuing licences for transporting abnormal and hazardous loads.

Provincial road network

Provincial gravel roads make up 77 per cent of the provincial road network.

The country has more than 12 million motor vehicles with an average density of 16 motor vehicles per kilometre. The provincial road network is about 222 951 kilometres in length, consisting of 170 837 kilometres of unpaved and 52 114 kilometres of paved roads. Provincial gravel roads make up 77 per cent of the provincial road network.

As Table 7.1 shows, the average density on the provincial road network (excluding national and municipal road networks) is 55 vehicles per kilometre. The higher the density, the higher the traffic congestion on roads. Gauteng and the Western Cape have the highest densities on their roads; these increase the frequency of the need for maintenance activities. In contrast, traffic density in the Northern Cape and Free State, at 10 and 14 vehicles per kilometre respectively. The Eastern Cape and Free State have the longest road networks at more than 40 000 kilometres each.

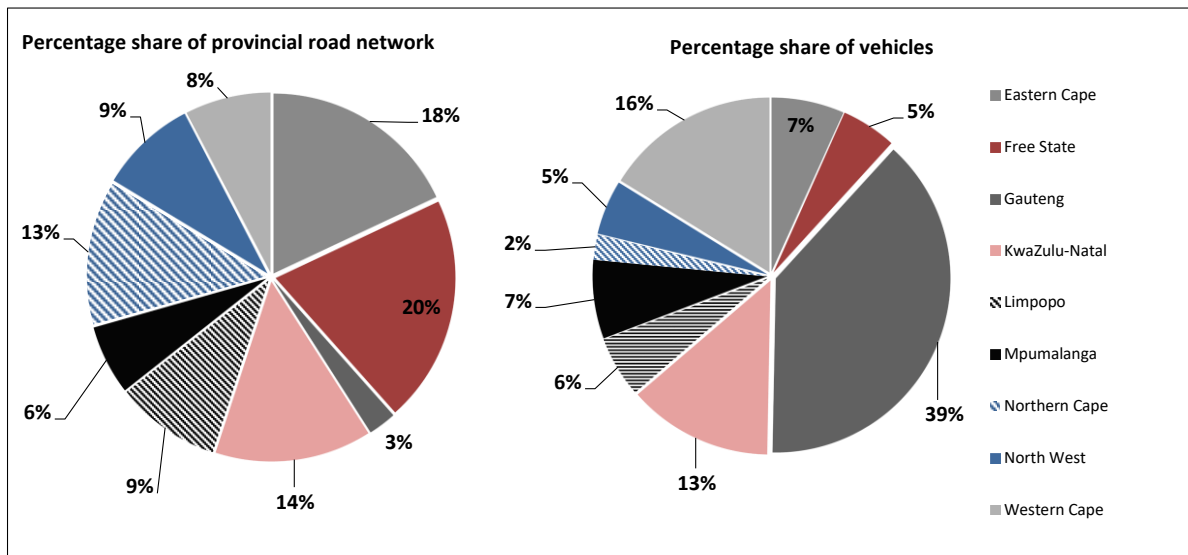
Table 7.1 Extent of provincial road network (in kilometres) by province, March 2018

Province	Paved Extent	Unpaved Extent	Total provincial road network	Total number of vehicles	% share of vehicles	Road densities*
Eastern Cape	3 808	36 345	40 153	816 898	6,6%	20
Free State	6 370	39 149	45 519	628 885	5,1%	14
Gauteng	4 284	1 356	5 640	4 737 590	38,5%	840
KwaZulu-Natal	8 084	23 254	31 338	1 638 774	13,3%	52
Limpopo	7 583	13 473	21 056	698 340	5,7%	33
Mpumalanga	5 453	8 373	13 826	882 585	7,2%	64
Northern Cape	4 987	23 963	28 950	278 182	2,3%	10
North West	4 929	14 550	19 479	620 393	5,0%	32
Western Cape	6 616	10 374	16 990	1 991 566	16,2%	117
Total	52 114	170 837	222 951	12 293 213	100,0%	55

* Vehicles per kilometre

Source: National and provincial Departments of Transport (Road Asset Management System)

Figure 7.1: Percentage share of provincial road network (left) and share of vehicles (right) by province, March 2018



Source: National and provincial Departments of Transport (Road Asset Management System)

Condition of provincial roads

The World Economic Forum's *Global Competitiveness Report 2018-19* ranked the quality of South Africa's road network 47th out of the 141 countries surveyed. This was an improvement, by three places, from 58th in the 2017-18 report. For the country to remain competitive, investment in the construction and maintenance of road infrastructure needs to be improved. However, this must be coupled with developing the capacity necessary to plan and spend the allocated resources efficiently and effectively.

The 2017 Infrastructure Report Card of the South African Institute of Civil Engineers (SAICE) noted a slight improvement in the paved provincial road network although, at "D", it was still rated low and at risk of failure. Provincial unpaved roads were rated at "E": unfit for purpose. According to the report, provinces have suffered from a loss of experienced road professional expertise over two decades, the results of which are reflected in the overall deterioration of the provincial road networks. Road safety is also compromised by the condition of the road network.

Provincial paved roads are at risk of failure, while unpaved roads are unfit for purpose.

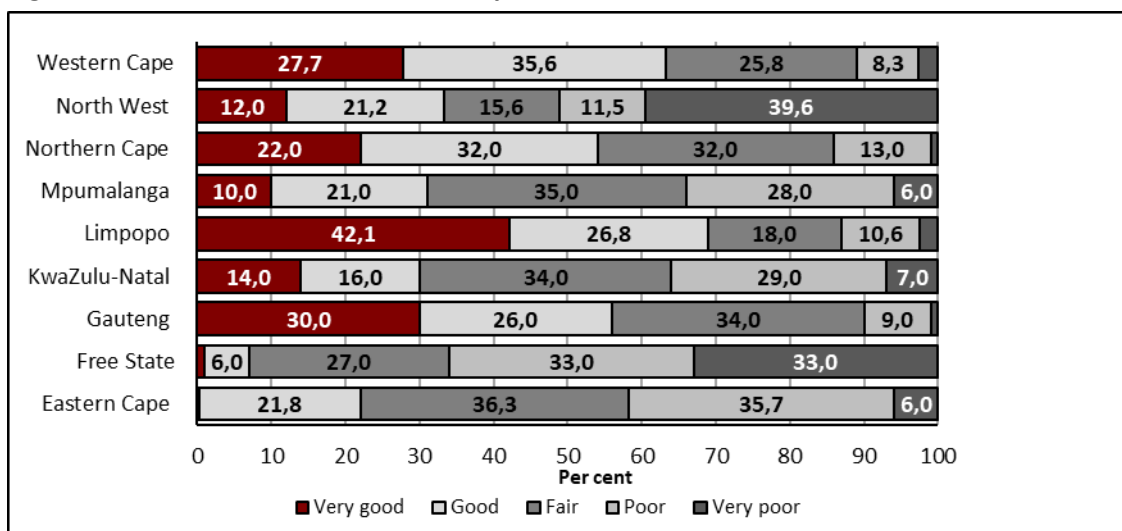
The transport sector, through the Committee of Land Transport Officials (COLTO), has developed various technical guidelines or standards for pavement management systems to guide road authorities in managing their road assets. Figure 7.2 and Figure 7.3 show the conditions of the provincial road network and the estimated maintenance backlog for each province. Provincial roads are currently in a variety of conditions.

Based on the Visual Condition Indices (VCI) used by road engineers to assess road conditions, the overall provincial road network is in a less than optimal condition.

A large proportion (about 80 per cent) of the network is older than its original design life of 20 years. Consequently, most of the roads are beyond the stages of routine and preventative maintenance and instead require heavy rehabilitation. The level of deterioration is also caused by defects that are neglected and by lack of maintenance prioritisation which results in increased Vehicle Operating Costs (VOCs). Provincial roads maintenance budgets remain insufficient, with most provinces relying heavily on the *provincial roads maintenance grant* (PRMG) and allocating little from their own budgets.

In aggregate, about 31 per cent of the provincial road network is in poor to very poor condition. This is a substantially larger percentage than the international benchmark of 10 per cent. Gauteng and the Western Cape have large percentages (almost 90 per cent) of their roads in fair, good or very good condition. However, the condition in other provinces remains largely poor to very poor. Roads in the Free State and North West have deteriorated significantly, with more than 50 per cent of their networks in a state of collapse.

Figure 7.2 Provincial road conditions, September 2017



Source: National Department of Transport

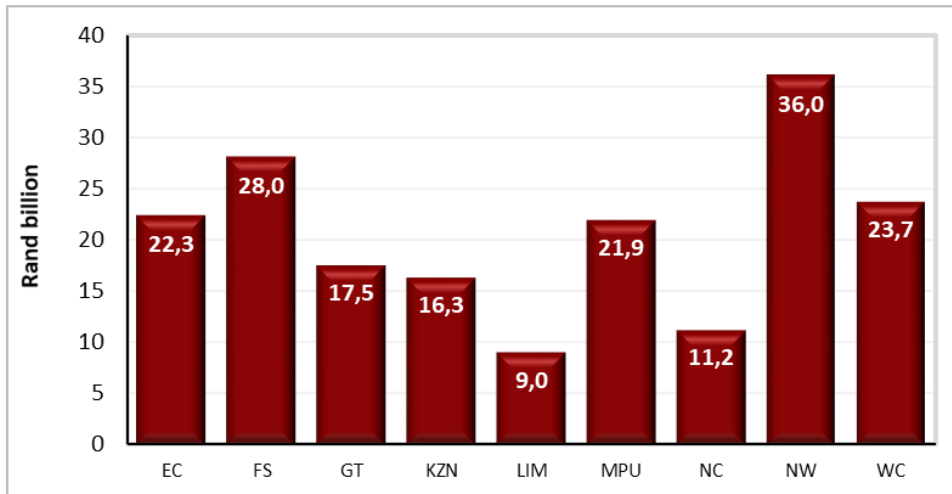
The provincial road maintenance backlog was estimated in 2018 at R185.9 billion. The DoT and SANRAL estimate that, where maintenance has been delayed by five years, the cost of reconstructing a road is up to 18 times higher than that of routine maintenance.

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Overloading, high traffic volumes, heavy rains, poor storm water management, insufficient maintenance and the reduction of skilled

personnel in provincial departments are some of the main factors contributing to the decline in the provincial road network. In addition, road transport is the dominant mode for freight movement as, compared to freight rail, it offers flexible and cheap transport solutions. According to the Land Transport Survey released by Statistics South Africa in 2020, more than 75 per cent of land freight is conveyed by road and this compounds the road maintenance backlog.

Figure 7.3 Total estimated provincial road backlog, 2018



Source: National Department of Transport

Budget and expenditure trends

Transport infrastructure programme

The objective of this programme is to promote accessible, safe and affordable movement of people, goods and services through the delivery and maintenance of transport infrastructure. This infrastructure should be sustainable, integrated and environmentally sensitive and should support and facilitate social empowerment and economic growth. Expenditure incurred in this programme relates to the planning, design, construction, rehabilitation, maintenance and repair of infrastructure supporting all modes of transport. The programme includes project expenditure on the Expanded Public Works Programme (EPWP) designed to support job creation initiatives and to develop the skills of small and emerging contractors.

Table 7.2 shows that provinces plan to spend R81.1 billion on transport infrastructure over the 2020 MTEF. Over the same period, the PRMG accounts for R36 billion or 44.4 per cent of the total. The grant supplements provincial investments in road infrastructure maintenance and assists provinces to address backlogs and to implement and

Provinces plan to spend R81.1 billion on transport infrastructure over the 2020 MTEF.

maintain the Road Asset Management System (RAMS). In 2018/19, provinces spent R24.8 billion and R24 billion in 2019/20 on transport infrastructure. This represents a 2.9 per cent or R719 million annual decrease in transport infrastructure expenditure.

In 2011, the DoT introduced the S’hamba Sonke (meaning “moving together”) flagship project. This aims to improve the provincial road infrastructure and create jobs through labour intensive forms of road maintenance. The programme is being implemented through the PRMG. Before the beginning of the new financial year, each province tables a detailed project list covering a period of three years and a road asset management plan (RAMP). The purpose of these plans is to promote transparency and forward planning on road infrastructure.

Through investment in roads, major improvements are expected to be carried out on provincial road infrastructure and backlogs are expected to reduce. However, inefficiencies in spending remain a concern as evidenced by the deteriorating road conditions in provinces.

Table 7.2: Transport infrastructure expenditure by province, 2015/16 - 2022/23

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
R million	Outcome				Revised estimate	Medium-term estimates		
Eastern	2 021	2 073	2 236	2 149	2 130	2 270	2 099	2 129
Free State	1 518	1 623	1 624	1 621	1 752	1 722	1 813	1 886
Gauteng	2 177	1 961	2 246	2 741	2 159	3 022	3 371	3 328
KwaZulu-Ni	6 977	7 054	7 102	7 103	6 060	8 317	8 256	8 612
Limpopo	1 642	1 873	2 093	2 198	2 537	2 557	2 026	2 096
Mpumalan	2 315	2 352	2 376	2 636	2 622	2 083	2 012	2 098
Northern C	1 067	1 137	1 452	1 354	1 393	1 477	1 352	1 419
North West	1 336	1 329	1 603	1 428	1 806	1 981	1 867	2 045
Western Ca	3 174	3 244	3 429	3 527	3 578	3 798	3 717	3 771
Total	22 226	22 646	24 161	24 757	24 038	27 226	26 513	27 386
Percentage growth (average annual)	2015/16 – 2019/20				2019/20 – 2020/21	2019/20 – 2022/23		
Eastern	1,3%				6,6%	0,0%		
Free State	3,6%				-1,7%	2,5%		
Gauteng	-0,2%				39,9%	15,5%		
KwaZulu-Natal	-3,5%				37,2%	12,4%		
Limpopo	11,5%				0,8%	-6,2%		
Mpumalanga	3,2%				-20,6%	-7,2%		
Northern Cape	6,9%				6,1%	0,6%		
North West	7,8%				9,6%	4,2%		
Western Cape	3,0%				6,2%	1,8%		
Total	2,0%				13,3%	4,4%		

Source: National Treasury provincial database

KwaZulu-Natal's spending and budgeting shows a strong focus on road infrastructure. In 2018/19, the province spent about 28.7 per cent of the national total on its road infrastructure and this trend is consistent throughout the 2020 MTEF period. With an average of R27 billion per year, the overall provincial transport infrastructure budget remains relatively stable over the 2020 MTEF.

KwaZulu-Natal's budget shows a strong focus on road infrastructure.

The transport infrastructure budgets of Limpopo and Mpumalanga decline in nominal terms over the MTEF. Mpumalanga has in the past benefitted from a special coal haulage allocation (R501 million in 2018/19 and R526 million in 2019/20) which is now distributed according to the PRMG formula. Over the same period, aggregate expenditure is expected to increase by 4.4 per cent. The infrastructure allocations in Gauteng and KwaZulu-Natal show substantial growth over the MTEF. The declining expenditure in some provinces will increase backlogs in road construction and maintenance.

Provincial road maintenance

Maintenance of provincial road networks includes activities related to routine, preventative and periodic maintenance of road and transport infrastructure of a current nature that preserve the asset in its original condition. This includes all maintenance activities such as rehabilitation and resealing of surfaced roads, re-gravelling and blading of gravel roads and blacktop patching.

The rate of deterioration in the condition of the provincial road network is determined largely by the level of maintenance provided; this depends on the age and condition of the road. Maintenance reduces the rate of road deterioration and lowers the cost of operating vehicles. Other benefits of properly maintained roads are time saving, reduction in traffic congestion, improved access to facilities and safety. When a road is allowed to deteriorate from good to poor condition, the economic costs are borne primarily by road users as vehicle operating costs increase.

On average, provinces are investing more than 55 per cent of their transport infrastructure programme allocations in maintenance. At 23.9 per cent of the province's transport infrastructure programme budget over the MTEF, North West's investment in maintenance is the lowest. As stated above, the condition of the province's roads has greatly deteriorated, with about 52 per cent of them in poor or very poor condition; the province also has the highest maintenance backlog, estimated at R36 billion. Its underinvestment in maintenance will only exacerbate the situation.

Despite the extraordinary deterioration in its roads, North West is investing the lowest percentage of its transport infrastructure programme budget in maintenance.

About R36 billion is available through the Provincial Roads Maintenance Grant over the 2020 MTEF.

As shown in Table 7.3, provinces plan to spend R44.6 billion on the road maintenance sub-programme over the 2020 MTEF. Of this total, the PRMG accounts for R36 billion or about 80.7 per cent. The grant provides road maintenance funding to provinces based on the extent of the provincial road network (paved and unpaved), traffic volumes, road conditions and geo-climatic and topographic factors.

Maintenance and rehabilitation projects identified and prioritised through the provincial RAMS are funded by the grant. The allocation also includes funding for road networks supporting electricity generation infrastructure and for rehabilitation and repair of roads and bridges damaged by unforeseen incidents. In support of electricity generation infrastructure, Mpumalanga was allocated R501 million in 2018/19 and R526.2 million in 2019/20 for coal haulage road projects.

Table 7.3: Roads maintenance expenditure by province, 2015/16 - 2022/23

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
R million	Outcome				Preliminary Outcome	Medium-term estimates		
Eastern Cape	918	787	840	1 001	1 358	1 142	1 018	1 067
Free State	1 489	1 595	1 574	1 581	1 627	1 625	1 726	1 749
Gauteng	912	1 088	1 003	1 592	1 427	1 526	1 738	1 869
KwaZulu-Natal	2 638	3 208	3 103	3 420	3 258	3 705	3 287	3 315
Limpopo	1 642	1 873	2 093	2 198	2 537	2 547	2 020	2 089
Mpumalanga	980	1 121	1 306	1 476	1 388	947	1 016	1 056
Northern Cape	912	936	1 349	1 248	1 281	1 351	1 189	1 246
North West	372	419	371	391	452	467	489	524
Western Cape	1 606	1 504	1 421	1 560	1 678	2 106	1 924	1 924
Total	11 469	12 531	13 058	14 468	15 005	15 415	14 407	14 839
of which: Provincial Roads Maintenance Grant								
Eastern Cape	1 367	1 306	1 389	1 470	1 510	1 629	1 446	1 515
Free State	1 140	1 259	1 270	1 248	1 390	1 447	1 285	1 346
Gauteng	455	501	656	742	767	745	661	693
KwaZulu-Natal	1 749	1 925	1 829	1 827	1 883	2 077	1 843	1 931
Limpopo	970	993	1 131	975	873	1 295	1 149	1 204
Mpumalanga	1 719	1 639	1 461	1 524	1 572	1 043	926	970
Northern Cape	822	905	1 084	1 112	1 146	1 231	1 092	1 144
North West	788	745	914	678	1 050	1 059	940	985
Western Cape	859	831	940	1 007	1 040	1 067	947	992
Unallocated*	–	–	–	–	–	–	1 648	1 727
Total	9 869	10 104	10 674	10 583	11 231	11 593	11 938	12 507
Provincial roads maintenance expenditure								
Percentage growth (average annual)	2015/16 – 2019/20			2019/20 – 2020/21		2019/20 – 2022/23		
Eastern Cape	10,3%			-15,9%		-7,7%		
Free State	2,2%			-0,1%		2,5%		
Gauteng	11,8%			6,9%		9,4%		
KwaZulu-Natal	5,4%			13,7%		0,6%		
Limpopo	11,5%			0,4%		-6,3%		
Mpumalanga	9,1%			-31,7%		-8,7%		
Northern Cape	8,9%			5,5%		-0,9%		
North West	5,0%			3,3%		5,0%		
Western Cape	1,1%			25,5%		4,7%		
Total	6,9%			2,7%		-0,4%		

* Incentive portion of the grant

Source: National Treasury provincial database

Job creation

As already discussed, to increase the labour content of road maintenance projects the DoT is rolling out S’hamba Sonke and similar programmes. The Department of Public Works (DPW) provides technical support and assists provinces to design and implement labour intensive programmes and projects; the department uses “full-time equivalent” (FTE) as the unit for calculating the number of jobs created.

140 988 work opportunities were created in the provincial road construction and maintenance sector in 2018/19.

Table 7.4 shows that there were 1 135 EPWP projects in provincial road and transport departments in 2018/19. In that year, about 140 988

people were employed in the provincial roads construction and maintenance sector compared with 135 476 in 2017/18; and 44 199 full-time equivalents were created, with each person spending an average of 49 days on a project.

Table 7.4: Provincial roads expanded public works programme by province, 2018/19

Province	2017/18	2018/19					Year-on-year change
	Number of work opportunities	Number of EPWP Projects	Number of work opportunities	Number of full time equivalents	Person days* of work	Average number of person days	
Eastern Cape	50 378	41	49 571	12 962	1 255 002	25	-807
Free State	5 096	16	4 943	1 385	54 219	11	-153
Gauteng	2 371	49	3 961	1 652	447 835	113	1 590
KwaZulu-Natal	48 242	275	44 008	14 877	3 383 886	77	-4 234
Limpopo	4 289	57	6 289	2 313	256 293	41	2 000
Mpumalanga	7 929	490	8 901	3 304	352 369	40	972
Northern Cape	3 835	85	6 648	2 740	87 958	13	2 813
North West	6 531	33	8 795	2 643	565 955	64	2 264
Western Cape	6 805	89	7 872	2 323	521 804	66	1 067
Total	135 476	1 135	140 988	44 199	6 925 321	49	5 512

Provincial road construction and maintenance outputs, 2018/19

Source: National Department of Public Works, Expanded Public Works Programme Reporting System

277 kilometres of gravel roads were upgraded to surfaced roads and a further 407 202 kilometres of gravel roads were bladed in 2018/19.

Table 7.5 shows the construction and maintenance outputs by provincial roads and transport departments in 2017/18 and 2018/19. KwaZulu-Natal had the largest transport infrastructure budget (R7.1 billion in 2018/19) and delivered more outputs across most transport infrastructure indicators than any other province. Across all provinces, in 2018/19 about 277 kilometres of gravel roads were upgraded to surfaced roads compared to 485 kilometres in 2017/18. Between the two years (2017/18 and 2018/19), there was a shift in focus on gravel roads from upgrading to maintenance of the existing road network.

Maintenance of paved or surfaced roads is measured in square metres. In 2018/19, about 8.5 million square metres of surfaced roads were resealed, 6.2 million rehabilitated and 3.0 million of surfaced roads patched. In the same year, 407 202 kilometres of gravel roads were bladed and 2 566 kilometres regavelled.

Table 7.5: Road construction and maintenance outputs by province, 2018/19

	Construction		Maintenance									
	Kilometres of gravel roads upgraded to surfaced roads		Square metres of surfaced roads rehabilitated		Square metres of surfaced roads resealed		Square metres of blacktop patching		Kilometres of gravel roads regavelled		Kilometres of gravel roads bladed	
	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19
Eastern Cape	109	23	1 800	–	–	–	37 242	20 374	551	410	24 850	24 565
Free State	16	26	796 511	1 330 458	975 487	509 700	382 542	184 263	219	146	44 515	41 536
Gauteng	–	11	396 610	643 687	610 894	351 776	178 190	182 724	158	138	2 315	2 075
KwaZulu-Natal	115	60	1 683 719	1 874 219	764 222	993 961	819 659	1 925 151	1 413	850	77 938	65 412
Limpopo	88	55	106 708	248 566	214 079	337 593	130 188	150 201	166	141	74 858	77 512
Mpumalanga	13	19	553 200	528 900	1 193 414	1 729 550	275 980	398 811	497	321	36 481	28 603
Northern Cape	77	15	250 000	300 000	2 253 478	1 880 000	42 246	38 543	389	324	73 485	74 389
North West	45	47	304 493	687 035	216 434	569 845	119 545	101 857	462	65	4 132	47 617
Western Cape	22	20	915 772	560 019	2 430 380	2 150 874	92 582	38 817	180	173	45 997	45 494
Total	485	277	5 008 813	6 172 884	8 658 388	8 523 299	2 078 175	3 040 742	4 035	2 566	384 572	407 202

Source: National Treasury provincial database

Traffic volumes

Table 7.6 shows the number of registered vehicles on South African roads as at 31 March 2020. Traffic volumes are a major determinant of pressure on a road network and influence how the PRMG is allocated to provinces. The volumes determine the pavement structure required, type of road surface, frequency of maintenance actions and design life of the road. Heavy vehicles impose higher stresses on roads which therefore require stronger pavement structures and more frequent maintenance.

High traffic volumes increase the frequency of road maintenance activities.

Table 7.6: Number of registered vehicles on South African roads by province, March 2020

Province	Total number of vehicles, March 2017	Total number of vehicles, March 2018	Total number of vehicles, March 2019	Self propelled vehicles	Trailers	All other unknown vehicles	Total number of vehicles, March 2020	Vehicles year-on-year growth
Eastern Cape	801 885	816 898	832 875	775 188	70 964	3 040	849 192	16 317
Free State	623 264	628 885	634 521	546 158	90 068	3 753	639 979	5 458
Gauteng	4 648 786	4 737 590	4 829 383	4 471 705	441 980	4 562	4 918 247	88 864
KwaZulu-Natal	1 610 144	1 638 774	1 670 496	1 582 048	113 367	2 872	1 698 287	27 791
Limpopo	678 843	698 340	719 985	676 732	59 711	2 314	738 757	18 772
Mpumalanga	859 640	882 585	906 892	797 412	116 429	3 613	917 454	10 562
Northern Cape	274 160	278 182	282 766	246 640	38 189	1 350	286 179	3 413
North West	611 025	620 393	630 945	562 913	71 683	4 158	638 754	7 809
Western Cape	1 939 657	1 991 566	2 033 704	1 868 126	195 228	4 346	2 067 700	33 996
Total	12 047 404	12 293 213	12 541 567	11 526 922	1 197 619	30 008	12 754 549	212 982
<i>Of which:</i>	Heavy load vehicles GVM* > 3500 KG			Percentage share of heavy vehicles	Percentage share of vehicle population			
	Trucks	Trailers	Total					
Eastern Cape	22 451	7 397	29 848	5,1%	6,7%			
Free State	22 569	19 440	42 009	7,1%	5,0%			
Gauteng	140 766	64 824	205 590	34,9%	38,6%			
KwaZulu-Natal	50 214	24 150	74 364	12,6%	13,3%			
Limpopo	26 451	10 224	36 675	6,2%	5,8%			
Mpumalanga	45 049	39 878	84 927	14,4%	7,2%			
Northern Cape	9 053	5 762	14 815	2,5%	2,2%			
North West	17 472	11 164	28 636	4,9%	5,0%			
Western Cape	46 762	25 112	71 874	12,2%	16,2%			
Total	380 787	207 951	588 738	100,0%	100,0%			

*GVM = Gross vehicle mass

Source: National Treasury provincial database

Between 2018/19 and 2019/20, the number of vehicles in South Africa grew from 12.5 million to 12.8 million, an increase of 212 982 or 1.7 per cent. The largest number of vehicles (4.9 million or 39 per cent) were in Gauteng, followed by the Western Cape with 2.1 million. Heavy trucks and trailers with a gross vehicle mass (GVM) greater than 3 500 kilogrammes accounted for only 4.6 per cent of the vehicle population but they generate significant stress on the road network.

Transport operations programme

Improvements in public transport is one of the strategic focus areas in improving service delivery.

The 2014-2019 MTSF highlights improvements in public transport as one of the strategic focus areas in improving service delivery. Investment in public transport should contribute to narrowing spatial divisions by making it quicker, safer and more affordable for people to access work opportunities. Public transport planning and alignment with residential development is a key element in achieving social and economic transformation in urban areas.

The objective of this programme is to plan, regulate and facilitate the provision of integrated land transport services through co-ordination and co-operation between national planning authorities, community based organisations (CBOs), non-governmental organisations (NGOs)

and the private sector to improve mobility for all communities and particularly those currently without, or with limited, access.

Provincial bus services

Government subsidises public transport to ensure that all South Africans, including the poor and the unemployed, have access to affordable public transport. In 2009/10, the role of funding bus subsidies was assigned from national government to provinces. Provinces are the contracting authorities; the services are funded through the *public transport operations grant* (PTOG) and the provincial equitable share.

Government subsidises public transport to make it accessible and affordable.

Five provinces (the Eastern Cape, Gauteng, Limpopo, Mpumalanga and North West) supplement the grant funding with the provincial equitable share. Over the 2020 MTEF, government plans to spend R25.5 billion on provincial bus subsidies; the PTOG amounts to R21.0 billion or 82.2 per cent of the provincial bus subsidies allocation over the same period.

Table 7.7: Public transport services expenditure by province, 2015/16 - 2022/23

	2015/16	2016/17	2017/18	2018/19	2019/20 Revised estimate	2020/21	2021/22	2022/23
R million	Outcome					Medium-term estimates		
Eastern Cape	425	464	487	539	545	572	601	614
Free State	218	241	256	264	279	297	314	312
Gauteng	1 960	2 341	2 053	2 239	2 168	2 751	2 928	2 868
KwaZulu-Natal	993	1 011	1 112	1 391	1 382	1 246	1 315	1 309
Limpopo	652	692	697	697	728	801	859	880
Mpumalanga	525	575	610	626	669	715	754	791
Northern Cape	43	49	54	54	57	61	64	64
North West	640	626	637	677	660	647	683	708
Western Cape	797	871	923	953	1 006	1 074	1 133	1 128
Total	6 254	6 870	6 829	7 439	7 493	8 163	8 650	8 674
of which: Public Transport Operations Grant								
Eastern Cape	200	218	231	239	252	269	284	283
Free State	218	241	256	264	279	297	314	312
Gauteng	1 850	2 035	1 906	2 078	2 015	2 599	2 742	2 731
KwaZulu-Natal	925	1 011	1 071	1 106	1 168	1 246	1 315	1 309
Limpopo	298	326	346	357	360	402	424	422
Mpumalanga	501	549	582	597	632	677	714	711
Northern Cape	43	50	52	54	57	61	64	64
North West	92	99	109	192	102	124	131	131
Western Cape	797	871	923	953	1 006	1 074	1 133	1 128
Unallocated*	–	–	–	–	–	–	–	–
Total	4 924	5 400	5 476	5 840	5 871	6 750	7 121	7 090
Provincial public transport services expenditure								
Percentage growth (average annual)	2015/16 – 2019/20			2019/20 – 2020/21		2019/20 – 2022/23		
Eastern Cape	6,4%			4,9%		4,1%		
Free State	6,3%			6,7%		3,9%		
Gauteng	2,6%			26,9%		9,8%		
KwaZulu-Natal	8,6%			-9,8%		-1,8%		
Limpopo	2,8%			9,9%		6,5%		
Mpumalanga	6,2%			6,9%		5,7%		
Northern Cape	7,0%			6,7%		3,9%		
North West	0,8%			-2,0%		2,4%		
Western Cape	6,0%			6,7%		3,9%		
Total	4,6%			8,9%		5,0%		

Source: National Treasury provincial database

Through 108 provincial contracts, a total of 6 351 vehicles were subsidised in 2018/19.

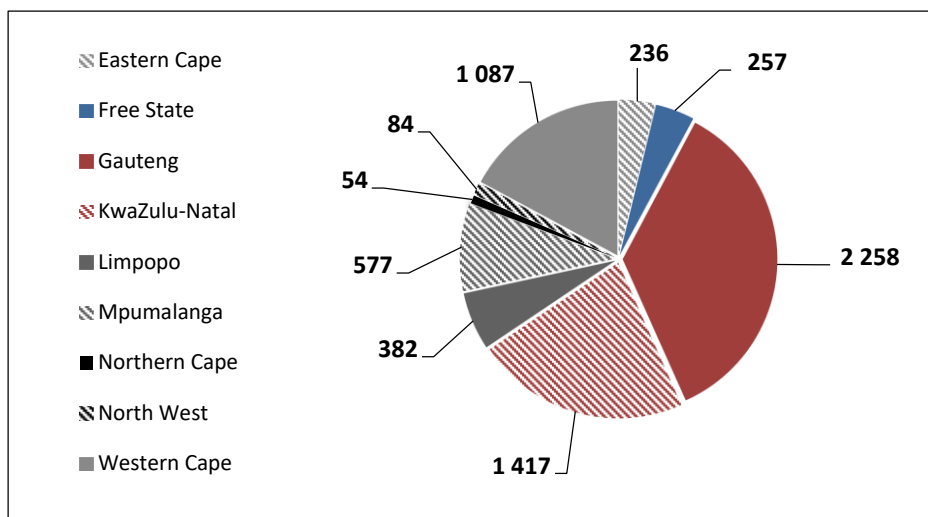
In 2018/19, the PTOG subsidised 108 provincial contracts covering 6 351 vehicles and 12 137 routes, providing 6.6 million trips and covering 266.7 million kilometres during the year. Gauteng and KwaZulu-Natal managed more than 30 contracts each and received the largest share of PTOG allocations. The PTOG framework requires the contracting authorities of bus services to supervise, monitor and verify the correctness of operators’ claims in terms of the number of kilometres of service provided and to submit monthly summary reports to the transferring officer.

Table 7.8: Provincial subsidised bus services by province, 2018/19

Province	Number of contracts	Number of vehicles subsidised	Number of routes subsidised	Number of trips subsidised	Number of kilometers subsidised
Eastern Cape	1	277	2 020	351 989	9 951 285
Free State	9	257	234	265 311	11 933 884
Gauteng	32	2 237	3 349	1 498 429	79 665 112
KwaZulu-Natal	37	1 379	2 074	1 165 396	41 360 571
Limpopo	9	380	882	658 990	32 461 772
Mpumalanga	7	577	154	820 764	26 932 110
Northern Cape	6	54	61	40 454	1 673 766
North West	6	85	781	529 554	25 979 535
Western Cape	1	1 105	2 582	1 312 790	36 791 412
Total	108	6 351	12 137	6 643 677	266 749 447

Source: National Treasury provincial database

Figure 7.4 Number of vehicles subsidised, 2018/19



Source: National Treasury provincial database

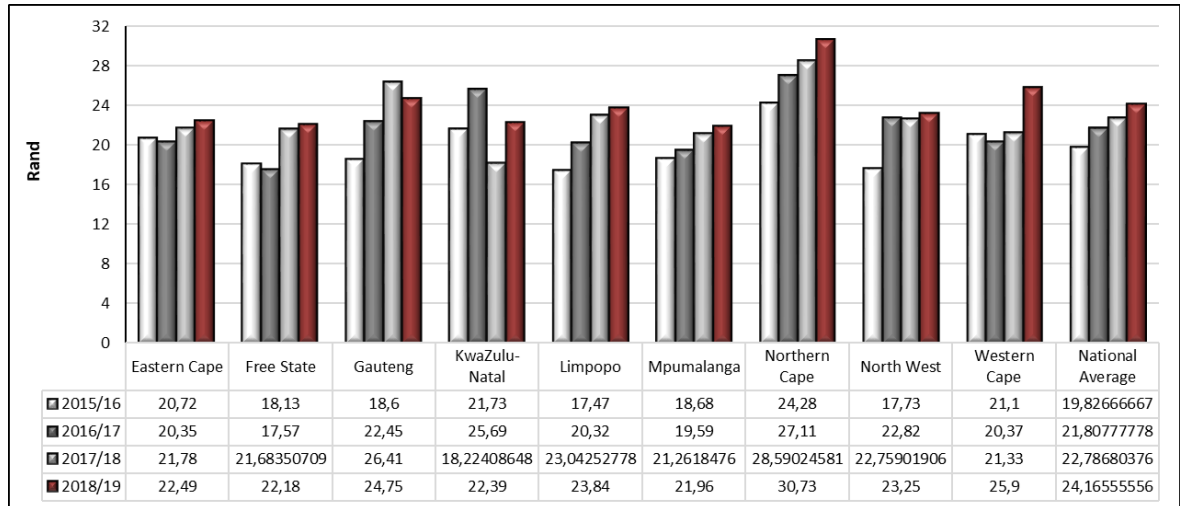
Provincial bus subsidies per kilometre

Provincial bus subsidies are kilometre-based. Revenue generated from fares only partially covers public transport costs; hence, the need for subsidisation. Between 2015/16 and 2018/19, the average subsidy per

The average subsidy per kilometre increased from R19.83 in 2015/16 to R24.17 in 2018/19.

kilometre increased from R19.83 per kilometre to R24.17. In 2018/19, the Northern Cape paid the highest subsidy per kilometre (R30.73 per kilometre); KwaZulu-Natal (R22.39 per kilometre) and Mpumalanga (R21.96 per kilometre) paid the lowest subsidies per kilometre in the same period. The mode of transport used and the condition of roads can influence the subsidy paid per kilometre.

Figure 7.5 Bus subsidies per kilometre per province as at 31 March: 2015/16 - 2018/19



Source: Public Transport Operations Grant (PTOG) quarterly reports

Public transport plans and arrangements between provinces and municipalities

The Eastern Cape is planning to recapitalise the ageing fleet of the Mayibuye Transport Corporation’s (MTC) over the MTEF.

Gauteng has completed a comprehensive survey of the majority of contracts and is signing intergovernmental agreements with municipalities for joint delivery of public transport services in the province.

KwaZulu-Natal is negotiating with mainstream bus operators to increase the participation of Black-owned bus operations to 50 per cent.

In the Western Cape, a memorandum of understanding was signed between the Department of Public Works and Transport and the City of Cape Town to cooperate on the integration of the provincial and MyCiti services.

Municipal IPTNs either exist or are being developed across various provinces. Within the IPTNs, provincial contracts can also be managed by cities. As part of the development of the IPTNs, municipalities’

capacity to manage these contracts and the financial sustainability of bus subsidies are considered by provinces and municipalities.

Transport regulation programme

The objective of the transport regulation programme is to ensure that provincial transport departments provide a safe transport environment through regulation of traffic on public infrastructure; traffic law enforcement; implementation of road safety education and awareness programmes; and registration and licensing of vehicles and drivers. Provinces provide traffic safety services through roads and transport or community safety departments.

Table 7.9 shows that provincial expenditure on traffic safety and law enforcement rose at an average annual rate of 5.4 per cent between 2015/16 and 2019/20. Over the 2020 MTEF, this expenditure is projected to grow at an average annual rate of 5.2 per cent.

Table 7.9: Transport regulation expenditure by province, 2015/16 - 2022/23

	2015/16	2016/17	2017/18	2018/19	2019/20 Revised estimate	2020/21	2021/22	2022/23
R million	Outcome					Medium-term estimates		
Eastern	297	318	337	394	364	352	369	396
Free State	351	393	473	530	561	471	487	525
Gauteng	262	319	300	292	289	398	412	440
KwaZulu-Ni	738	778	850	891	896	1 033	1 093	1 160
Limpopo	492	526	580	611	737	678	716	746
Mpumalan	661	569	537	585	648	696	765	790
Northern C	87	82	94	88	92	104	110	115
North West	562	551	585	572	594	657	685	718
Western Ca	661	682	794	841	884	920	968	1 006
Total	4 110	4 219	4 549	4 804	5 066	5 308	5 605	5 897
Percentage growth (average annual)	2015/16 – 2019/20				2019/20 – 2020/21		2019/20 – 2022/23	
Eastern	5,2%				-3,6%		2,8%	
Free State	12,5%				-16,0%		-2,2%	
Gauteng	2,5%				37,6%		15,0%	
KwaZulu-Natal	5,0%				15,3%		9,0%	
Limpopo	10,6%				-8,0%		0,4%	
Mpumalanga	-0,5%				7,4%		6,9%	
Northern Cape	1,4%				13,7%		7,8%	
North West	1,4%				10,5%		6,5%	
Western Cape	7,6%				4,0%		4,4%	
Total	5,4%				4,8%		5,2%	

Source: National Treasury provincial database

The latest road safety initiatives aim to change the behaviour of road users.

According to the 2018 Global Status Report on Road Safety, the global rate for road traffic deaths is 18 per 100 000 inhabitants. In South Africa, the figure is 25.9 per 100 000 inhabitants (2016 data). Based on the current trends (reported in Figure 7.6 below), Target 3.6 of the

Sustainable Development Goals (SDGs) - to halve road traffic deaths by 2020 - will not be met.

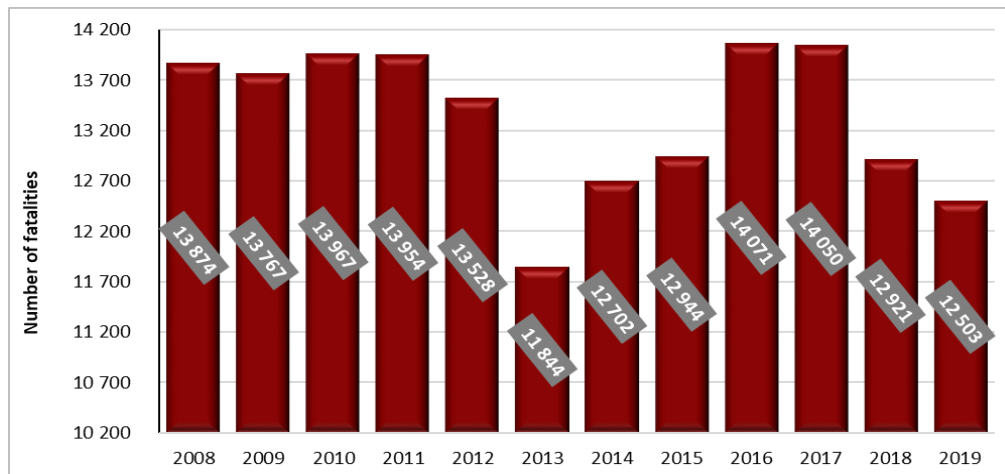
The aim of the National Road Safety Strategy 2016-2030 developed by the DoT is to reduce road fatalities, promote road safety and improve road traffic management. Related to this, through a demerit system which can result in serial traffic offenders losing their driver's licences, the Administrative Adjudication of Road Traffic Offences Amendment Act (AARTO) (2019) seeks to improve driver behaviour and reduce the number of road fatalities.

Road fatalities in South Africa

Figure 7.6 shows that there were 12 503 fatalities on South African roads in 2019, 418 fewer than the 12 921 of the previous year or a 3.2 per cent reduction. However, the numbers of fatalities in 2016 and 2017 were higher than any of the years between 2008 to 2015. The increase in 2016 and 2017 indicated that the awareness campaigns and law enforcement initiatives aimed at curbing road fatalities did not work well enough and required policy makers to evaluate them. Lack of law enforcement also contributes to the rising number of road fatalities

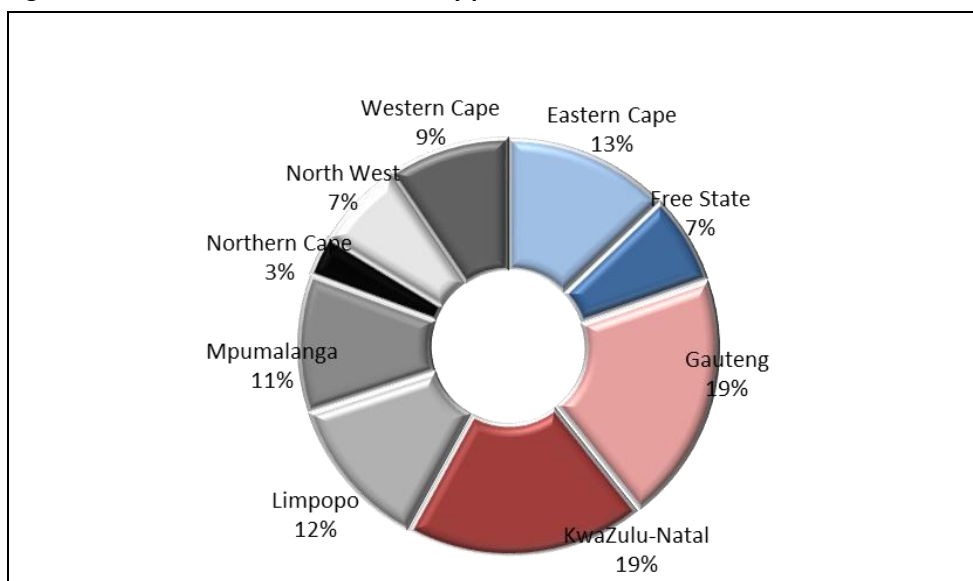
There were 12 503 road fatalities in South Africa in 2019.

Figure 7.6 South African road fatality trends, 2008 - 2019



Source: Road Traffic Management Corporation Report: 1 January - 31 December 2019

Figure 7.7 South African road fatalities by province, 2019



Source: Road Traffic Management Corporation Report: 1 January - 31 December 2019

Despite the slight improvements in 2018 and 2019 shown in Figure 7.6, fatalities on South Africa’s roads are still far too high. Figure 7.7 shows that Gauteng and KwaZulu-Natal accounted for the highest percentages of fatalities at 19 per cent each, while the lowest percentage was in Eastern Cape at 3 per cent. Policy makers therefore need to assess the effectiveness of awareness campaigns, law enforcement initiatives and other current preventative measures to curb fatalities. The country needs to improve infrastructure, such as pedestrian bridges, for non-motorised transport facilities and rigorously enforce the traffic laws.

Road safety education and awareness programmes outputs

Provinces conducted 5 719 road safety awareness programmes in 2018/19.

Table 7.10 shows that, in 2018/19, over 5 700 road safety awareness campaigns were carried out across all nine provinces. The largest number was in Limpopo, with 3 283, followed by Gauteng with 1 371. More than 8 900 schools took part in road safety education programmes to increase learners’ awareness in road safety.

Law enforcement outputs

Table 7.10 gives information about the activities undertaken by provincial roads and transport or community safety departments to check compliance with traffic regulations and thereby promote road safety.

Table 7.10: Provincial transport safety, compliance and law enforcement outputs by province, 2018/19

Province	Safety and compliance		Law enforcement				2016	2017	2018	Change from 2017 to 2018
	Number of road safety awareness programme	Number of schools involved in road safety education	Number of speed operations conducted	Drunken driving operations conducted	Number of vehicles weighed	Number of vehicles stopped and checked	Number of unroadworthy and unlicensed vehicles*			
Eastern Cape	3	438	2 338	530	15 773	1 228 304	53 220	68 569	79 064	10 495
Free State**	283	868	8 000	87	–	747 771	50 089	60 350	65 754	5 404
Gauteng	1 371	2 310	12 816	1 258	289 729	1 006 236	516 548	445 565	488 933	43 368
KwaZulu-Natal	6	1 252	16 003	520	159 409	1 100 274	117 521	130 986	143 785	12 799
Limpopo	3 283	1 659	16 995	4 112	815 298	2 751 037	39 877	60 747	66 802	6 055
Mpumalanga	20	1 344	2 773	72	968 250	1 669 680	71 251	84 121	89 611	5 490
Northern Cape	171	122	1 718	1 216	43 072	167 331	14 016	21 723	24 576	2 853
North West	4	493	11 246	907	237 234	1 082 426	47 407	57 141	63 701	6 560
Western Cape	578	426	6 295	6 683	653 584	1 534 086	125 520	135 421	147 940	12 519
Total	5 719	8 912	78 184	15 385	3 182 349	11 287 145	1 035 449	1 064 623	1 170 166	105 543

Source: National Treasury provincial database

Road Traffic Management Corporation 1 January – 31 December 2018

In 2018/19, over 11.3 million vehicles were stopped and checked for roadworthiness by law-enforcement officers at various roadblocks in provinces. Roadblocks are one of the means used in the attempt to reduce fatalities and reduce lawlessness on roads. The largest number of vehicles stopped and checked was in Limpopo (2.8 million vehicles), with a peak during the festive season. This was followed by Mpumalanga, at 1.7 million vehicles. The 2019 RTMC Road Traffic Report shows that, nationally, the number of vehicles found to be unlicensed, unroadworthy or both increased by 105 543 from 1 064 623 in December 2017 to 1 170 166 in December 2018. Among the strategies needed to address this severe problem is to monitor the quality of vehicle testing centres' work to ensure that certificates are issued only to roadworthy vehicles.

Over 11.3 million vehicles were stopped and checked for roadworthiness in 2018/19.

In 2018/19, provinces carried out 78 184 speed operations. The largest number was in Limpopo, with 16 995, followed by KwaZulu-Natal and Gauteng at 16 003 and 12 816 respectively. Drivers whose blood alcohol content exceeds the legal limit, operate their vehicles recklessly or exceed speed limits by 40 kilometres per hour or more can be arrested on the spot. There were 15 385 driver alcohol blood content checks, with the Western Cape (6 683) carrying out the largest number followed by Limpopo (4 112). More detailed information about the reasons for differences and/or similarities between provinces' road traffic law enforcement would be valuable.

Overload control

The National Road Traffic Act (1996) and the National Road Traffic Regulations (2000) prescribe limits on vehicle dimensions and axle and vehicle masses with which vehicles using public roads must comply.

Overloaded vehicles cause serious damage to roads. Certain vehicles and loads that cannot be moved on public roads without exceeding the limits (such as vehicles or loads that cannot be dismantled without disproportionate effort, expense or risk of damage) are registered by provinces as abnormal vehicles and are issued with exemption permits to enable them to use the road network.

Overload control is carried out at a number of weighbridges throughout the country. Although up-to-date statistics are not available, there are an estimated 123 weighbridges (of which 69 are operational) being used to weigh vehicles and their loads. Weighbridges are intended to protect and optimise the life span of the road asset and to improve road safety. Weighbridges should operate on a 24-hour basis to prevent being bypassed by overloaded vehicles and should be resourced with the facilities needed to screen vehicles. Effectively used, weighbridges can result in huge savings in road maintenance through control of overloading.

Over 3 million vehicles were weighed for overload along provincial roads in 2018/19.

Table 7.10 shows that over 3 million heavy vehicles were weighed for overloading along provincial roads in 2018/19. The largest number (968 250) was weighed along the major routes in Mpumalanga followed by Limpopo (875 298) and the Western Cape (653 584). In 2018/19, SANRAL closed the Free State weighbridges for renovation. Traffic officers are required to issue heavy fines to discourage overloading.

■ Medium-term outlook

Transport infrastructure

The R81.1 million MTEF investment in transport infrastructure construction and maintenance is expected to boost economic growth through job creation; increase household income; reduce poverty; and support contractor development across provinces.

Transport operations

Government will continue to subsidise public transport to ensure that all South Africans, especially the poor and the unemployed, have access to affordable public transport.

The NLTA provides for provincial public transport contracting and regulatory functions to be assigned to metropolitan municipalities, for which funds from the PTOG will be transferred directly to the assigned municipality.

Transport regulations

Although road fatalities in South Africa are starting to show a (minimal) downward trend, the country's road fatality rate is markedly above the global average. Provincial departments will continue to work with the RTMC and metropolitan municipalities on road safety awareness programmes and on enforcing compliance with traffic regulations to improve safety and reduce fatalities on the country's roads.

■ Conclusion

The quality of the provincial road network is less than optimal. Investment in the PRMG is largely focused on the maintenance of provincial roads to improve their quality and condition and to reduce maintenance backlogs. Provinces need to improve the efficiency of their spending and use RAMS data to prioritise investment in roads projects and particularly in maintenance.

The public transport strategy aims to address the current lack of modal integration which hinders the provision of an efficient public transport system involving rail, taxi and bus services.

National and provincial governments and municipalities need to work together to give effect to the NLTA and the public transport strategy so that transportation services and systems are integrated efficiently.

The effectiveness and value for investment of current interventions to reduce road fatalities need to be reviewed and assessed. The sector will continue to focus on stronger law enforcement to change driver behaviour, removing unsafe vehicles from the road, continuing with road safety awareness campaigns, prioritising preventative maintenance, operating weighbridges on a 24-hour basis and prosecuting offenders.