# 13 Cities and the management of the built environment

# Introduction

South Africa is among the most urbanised countries in Africa. It has the third largest number of people living in urban centres (after Nigeria and Egypt), and a higher proportion of people living in urban areas than any comparable African country (excluding very small, desert or island states). The urban population is growing rapidly; it is expected to increase by 13.8 million people by 2050. The location of economic activity mirrors this situation, with cities hosting the vast majority of economic activity and increasingly becoming the engines of growth. However, the pace of urban population growth is outstripping economic growth. Effectively, this means cities are increasingly becoming home to expanding poor populations.

The inequalities in South African society are most evident in its cities. Apartheid patterns of spatial segregation persist, with poor people located in townships and peripheral areas, far from social and economic opportunities. These settlement patterns undermine economic growth prospects as they absorb considerable household spending and require large public transport subsidies to sustain them. It is clear that 17 years into democracy, South Africa has yet to find an appropriate model for effectively harnessing the potential of its cities to drive economic growth and redress the spatial patterns that continue to marginalise poor people.

Government recognises that large urban municipalities need to play a leading role in the management of the built environment. Cities already have the responsibility for the provision of basic services and associated infrastructure. However, to effectively manage the built environment, large municipalities need to be established as the centre of planning and service delivery coordination. In particular, this As the pace of urban population growth is outstripping economic growth; cities are increasingly becoming home to expanding poor populations

Government recognises that large urban municipalities need to play a leading role in the management of the built environment requires greater responsibilities for cities in land use management, the development of human settlements and the provision of public transport services.

In accordance with Section 156(4) of the Constitution, national and provincial government must assign functions that would be more effectively administered locally, including housing and municipal public transport, to municipalities that have the capacity to administer these functions. Four recent developments have underscored this leading role for city governments in the built environment:

- The formation of a new urban settlements development grant and the accreditation of large urban municipalities to manage public housing programmes in terms of the Housing Act (2007) have reinforced the centrality of these municipalities in developing integrated human settlements.
- The National Land Transport Act (2009) accords municipalities the leading role in the planning and regulation of public transport services in cities, across all modes of urban transport.
- The withdrawal of proposals to form regional electricity distributors has emphasised the role of municipalities in the provision of basic services.
- The recent Constitutional Court judgement on the Development Facilitation Act (1994) has clarified the responsibility of municipalities to lead land use planning and administration. This will be further confirmed in revisions to the land use management legislation.

Empowering cities to perform these functions will support integrated planning and spatial development, as well as ensure greater accountability to communities. However, the successful devolution of these functions requires clarity on roles and functions, reforms to intergovernmental fiscal arrangements, enhanced capacity at the local level and sufficient resources and incentives to effectively address the spatial legacy of the past. Importantly, it requires cities themselves to make clear trade-offs between the development of social and economic amenities in close proximity to residential areas, and a transit-based development approach that seeks to increase the mobility of residents and thus their access to existing amenities and opportunities.

This chapter reviews:

- the demographic, economic and spatial context of cities
- public expenditure on the built environment
- institutional and fiscal arrangements for managing cities
- reconsidering the fiscal framework for large cities.

Empowering cities to perform these functions will support integrated planning and spatial development

# The demographic, economic and spatial context of cities

In 2007, at least 52 per cent of the population resided in the 27 largest municipalities in South Africa. The population growth in these cities has been driven by both rural-urban migration and organic growth in urban populations, as well as by migration from Southern Africa and further afield. This trend is set to continue, though at a slower pace than in the past, as shown in figure 13.1. The United Nations Development Programme estimates that 71 per cent of South Africans will live in urban areas by 2030, growing to nearly 80 per cent by 2050. This implies that a further 7.8 million people will live in the country's cities by 2030, followed by an additional 6 million people by 2050.

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Figure 13.1 Urban population projections to 2050

The character of the urban population has changed along with its growth. A notable change is the average size of households, which declined from 3.9 to 3.6 people between 2001 and 2007 in the metros. Similar trends are evident in secondary cities.

South Africa's cities are the drivers of economic development, being host to around 80 per cent of economic activity. Figure 13.2 highlights the significant contribution of the finance, property and infrastructure sectors to urban economic activities. Economic growth in cities has exceeded the national average.

The average size of households in the metros declined from 3.9 to 3.6 people between 2001 and 2007



Figure 13.2 GVA per capita by type of municipality

Source: HIS Global Insight, September 2010

Glaring apartheid spatial patterns persist and are being perpetuated by the location of new, low cost housing projects on the periphery of cities Despite great progress over the past 17 years in the delivery of housing and related infrastructure, glaring apartheid spatial patterns persist and are being perpetuated by the location of new, low cost housing projects on the periphery of cities where land is cheapest. The consequence is that people, particularly poor people, continue to be forced to live in dysfunctional and disjointed settlements with limited social and economic infrastructure. These spatial inefficiencies mean that poorer people travel longer distances to places of employment and to access social services.

# Spatial distribution of population in Gauteng (2001 census) compared to Jakarta, London and Paris



Source: World Bank, Municipal Infrastructure Finance Synthesis Report, 2009

International trends suggest that to better manage the urban space, cities need to densify along economic corridors and in areas of economic growth, so as to reduce travel times for commuters and ensure more efficient use of urban land. The above figure reflects the disparities in land use densities between three international cities, comparing them to the Gauteng city region (which includes Ekurhuleni, Johannesburg and Tshwane). The fragmented and low density nature of the Gauteng city region even within each metro boundary is particularly noticeable, alongside the very high densities on the urban peripheries.

These demographic, economic and spatial trends have placed increasing pressure on urban municipalities and raise four critical challenges for municipalities to address:

- A growth in the number of poor people living in cities: The largest number of unemployed people reside in metros and big cities. Urban areas were hardest hit by the economic downturn, with job losses impacting on the ability of households to pay municipal rates and user charges, and increasing demand for free basic services. As the proportion of poor people in cities grows, additional pressure is placed on municipalities to provide infrastructure to support subsidised housing developments and provide free basic services.
- Supply side constraints to economic growth: Municipalities provide much of the infrastructure and services that support economic activities. A failure to provide this infrastructure to scale and on time creates a bottleneck that constrains private investment. Higher than average economic growth rates in cities have placed added pressure on these municipalities to expand and refurbish infrastructure.
- An inefficient urban form: The sprawling, low density nature of South Africa's cities imposes significant costs on households, firms and the public sector. Poor households must bear the costs of long transport journeys and low levels of community cohesion, while the public sector must subsidise access to both housing and public transport. Municipalities have to provide infrastructure networks across vast distances, particularly to give poor households access.
- *Rising demand for urban services:* Population growth and declining average household sizes place increasing pressure on urban municipalities, which deliver many services (such as water or electricity) at the level of the household rather than the individual. In large cities, backlogs in the provision of land and housing are reflected in the growth of informal settlements. Table 13.1 below illustrates the distribution of backlogs across municipal type.

Cities need to densify along economic corridors and in areas of economic growth, to reduce travel times for commuters and ensure more efficient use of urban land

	Housing	Basic	Basic	Basic
Households		water	sanitation	electricity
Metros	1 461 815	193 033	620 485	955 090
Secondary cities - 21	616 006	123 194	497 116	548 188
Other municipalities	475 027	1 021 034	2 193 911	1 998 420
Total	2 552 848	1 337 261	3 311 512	3 501 698
Percentage of backlogs				
Metros	57.3%	14.4%	18.7%	27.3%
Secondary cities - 21	24.1%	9.2%	15.0%	15.7%
Other municipalities	18.6%	76.4%	66.3%	57.1%
Total	100.0%	100.0%	100.0%	100.0%

Table 13.1 Distribution of backlogs across municipal type	oss municipal type
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Source: Stats SA, Community survey 2007

### Public expenditure on the built environment

Most public expenditure on the urban built environment is focused on housing, transport and related infrastructure, and social services. These investments complement far larger private investments, particularly in the property sector.

While public expenditure on housing increased from 2005/06, the scale of delivery of houses completed and under construction has decreased after peaking in 2007/08. The decrease is partly due to higher tendered prices per unit driven by high demand and high input prices in the construction industry, and partly due to weak planning, project and programme management. Most housing related expenditure is financed by a national conditional grant that flows through the provinces, with limited funding provided by municipalities. Private investment in housing still exceeds public investment despite the demand for subsidised housing.

With the introduction of the public transport infrastructure and systems grant to local government in 2005/06, public transport expenditure increased, largely driven by investments in infrastructure. In addition, bus subsidies have been shifted from the national sphere to the provincial sphere of government through the creation of the public transport operations grant, with further devolution to local government expected.

Investments in community assets also increased, largely due to investments in sports facilities linked to the 2010 FIFA World Cup.

#### Human settlements

Public housing programmes are funded through the human settlements development grant to provinces. In terms of the Housing Act (1997), provinces may use municipalities as developers in the housing construction process.

Most public expenditure on the urban built environment is focused on housing, transport and related infrastructure, and social services

Public housing programmes are funded through the human settlements development grant to provinces



Figure 13.3 Expenditure on housing and housing delivery, 2005-2009

Source: National Treasury local government database, Department of Human Settlements, Housing delivery 2005/06 – 2009/10

Spending on the human settlements development grant increased from R4.9 billion in 2005/06 to R12.4 billion in 2009/10, at an average annual rate of 26.6 per cent. Despite the robust growth in housing expenditure, housing delivery has fallen to 228 218 houses completed and under construction in 2009/10, after peaking in 2007/08, with 271 219 houses built. The largest decline in delivery occurred in Mpumalanga, where the province delivered 7 800 houses in 2009/10, down from 14 986 houses in 2005/06. Delivery did not decline in Eastern Cape and Western Cape.

Compared to provincial expenditure, municipal expenditure on housing reflects the functional misalignment within the sector. Metros' expenditure in 2008/09 constituted 22.2 per cent of the total allocation to provinces. The housing transfers from provinces to municipalities are classified on municipalities operating expenditure budgets as transfers to households, because households are the ultimate beneficiaries of the expenditure. In 2011, government will put in place budgeting and reporting procedures to ensure transparency in the total transfer of housing funds to metropolitan municipalities.

Expenditure by metros is expected to increase from R1.2 billion in 2009/10 to R2.3 billion in 2012/13. Expenditure by secondary cities shows a declining trend, but this is in all likelihood due to the nature of the agency agreements with provinces. These agreements provide for funds to flow after delivery of project milestones have been achieved and hence are not budgeted for over the medium term, unlike most government expenditure. Provinces' inability to provide funding certainty to municipalities over the MTREF period limits their ability to plan and coordinate development.

Compared to provincial expenditure, municipal expenditure on housing reflects the functional misalignment within the sector

Provinces' inability to provide funding certainty to municipalities over the MTREF limits their ability to plan and coordinate development

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
		Outcome		Estimate	Mediun	n-term esti	mates
Rmillion							
Category A (Metros)	663.6	1 509.5	1 226.8	1 180.2	2 072.5	1 949.4	2 321.8
Johannesburg	116.1	212.1	144.7	373.8	272.9	300.0	489.9
Cape Tow n	171.8	116.5	226.9	228.6	310.9	225.3	311.7
eThekw ini	46.9	822.3	302.7	136.2	1 182.7	1 133.3	1 202.5
Ekurhuleni	133.4	171.6	268.5	284.5	303.5	287.8	314.6
Tshw ane	195.5	187.0	283.9	157.1	-	-	-
Nelson Mandela	-	-	-	-	2.5	3.0	3.0
Category B (Locals)	314.9	354.9	298.8	250.1	747.2	890.9	688.3
Secondary cities - 21	200.0	61.7	65.4	117.6	170.1	187.2	63.4
Buffalo City	-	-	-	-	112.3	36.2	-
Mangaung	17.0	7.1	-	5.1	2.6	22.5	32.0
Matjhabeng	-	-	-	-	-	-	-
Emfuleni	-	-	-	-	-	-	0.3
Mogale City	3.3	-	-	0.0	-	1.5	0.0
Msunduzi	21.0	6.4	0.0	-	-	4.5	2.2
New castle	-	-	0.3	-	0.6	-	-
uMhlathuze	1.5	0.3	0.2	4.9	6.6	8.6	11.0
Govan Mbeki	-	-	0.0	-	-	-	0.2
Emalahleni (Mp)	-	0.1	-	-	-	-	-
Steve Tshw ete	0.1	0.0	-	0.3	-	-	-
Mbombela	-	-	-	-	-	-	0.1
Sol Plaatje	-	-	-	23.2	-	31.4	-
Polokw ane	-	-	-	-	_	-	-
Madibeng	-	-	-	-	-	-	-
Rustenburg	103.0	-	0.2	-	-	-	-
Tlokw e	-	-	-	0.2	-	-	0.0
Matlosana	-	-	-	-	_	26.0	-
Drakenstein	11.9	17.6	39.3	54.7	48.0	48.0	7.9
Stellenbosch	34.6	17.1	22.7	23.6	-	6.6	9.7
George	7.7	13.1	2.7	5.7	-	1.8	_
Towns - 140	82.7	222.9	223.0	88.8	534.3	668.7	589.9
Mostly rural - 70	32.3	70.2	10.4	43.7	42.9	35.0	35.0
Category C (Districts)	-	1.4	-	7.5	33.5	36.1	38.9
Category B + C	314.9	356.3	298.8	257.6	780.7	927.0	727.2
Total	978.5	1 865.8	1 525.5	1 437.8	2 853.2	2 876.3	3 049.0

Table	13.2	Municipal	expenditure	on housing.	2006/07	- 2012/13

Source: National Treasury local government database

The formal subsidised housing market currently serves 36 per cent of the total housing market Local government expenditure on housing represents 4.7 per cent of the total gross fixed capital formation for residential buildings in 2008, which totals R48.1 billion<sup>11</sup>, while provincial expenditure represents 21.2 per cent of this total. When these expenditure trends are compared to the housing need, 17 per cent of the population is able to finance housing privately, while 45 per cent of the population rely on one or other form of housing finance to finance their homes. However, there is a severe shortage of houses and housing finance in the affordable category of the housing market (i.e. housing properties valued less than R500 000)<sup>12</sup>. The formal subsidised housing market currently serves 36 per cent of the total housing market. In essence, 25.9 per cent of expenditure needs to service 36 per cent of the population, with a large gap market between the subsidised and the formal housing market, due to affordability and supply constraints.

<sup>&</sup>lt;sup>11</sup> South African Reserve Bank, Quarterly Bulletin, December 2010.

<sup>&</sup>lt;sup>12</sup> Finmark Trust, 2010

#### **Public transport**

Total spending on public transport (excluding roads), at national, provincial and local level, amounted to R16.6 billion in 2008/09. Expenditure largely related to capital expenditure for local public transport and the national rail function, totalled R9.85 billion, while subsidies, which include national taxi, bus and rail subsidies, contributed R6.8 billion. Provincial spending on public transport totalled R1.5 billion. Growth in public spending has, until recently, been constrained. However, significant investments are now under way in rail infrastructure as well as through the introduction of bus rapid transit systems in major cities.

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#### Bus subsidies

The subsidisation of bus services is currently funded through a provincial conditional grant. The services provided in all provinces total 80 812 vehicles providing subsidised services with an annual ridership of 653 129 019 passengers and non-subsidised services to 95 298 136 passengers in 2009/10. In 2009/10, North West provided the highest subsidy per passenger at R16.30, while Limpopo contributes an average of R2.22 per passenger. Details are provided in table 13.3.

The subsidisation of bus services is currently funded through a provincial conditional arant

Table 13.3	Delivery	of bus subsid	lised services,	2009/10
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				Number of	Num ber of	Number of		Total no of
	vehicles	routes	staff	trips	kms operated	cash	passengers	subsidised
Province	subsidised	operated		operated		passengers		passengers
Interim								
Limpopo	5 334	3 021	11 021	434 054	23 058 029	12 005 534	20 479 661	55 996 654
Gauteng	20 774	13 262	53 811	1 437 412	82 871 945	10 945 637	94 758 296	190 101 137
Mpumalanga	6 950	1 794	14 927	843 539	36 148 262	5 670 465	47 581 435	90 267 372
Kw aZulu-Natal	696	214	1 424	42 898	424 481	180 691	2 043 448	2 693 852
Free State	-	-	-	-	-	-	-	-
Eastern Cape	4 378	15 994	8 567	409 432	10 987 780	11 470 787	4 186 859	27 083 797
Western Cape	12 626	17 880	32 719	1 802 117	44 818 258	9 706 936	38 108 982	94 499 518
Northern Cape	108	12	34	953	44 737	15 553	47 293	108 690
North West	-	-	-	-	-	-	-	-
Subtotal	50 866	52 177	122 503	4 970 405	198 353 492	49 995 603	207 205 974	460 751 020
Tendered								
Limpopo	472	75	1 072	22 276	1 250 871	642 621	868 975	2 786 362
Gauteng	6 163	5 060	10 823	320 410	13 222 359	5 904 678	12 150 246	31 619 739
Mpumalanga	-	-	-	-	-	-	-	-
Kw aZulu-Natal	11 244	14 544	26 303	758 065	27 729 760	20 857 223	28 516 909	77 914 049
Free State	2 028	2 028	4 704	207 294	8 782 894	2 786 401	11 561 380	23 346 728
Eastern Cape	-	-	-	-	-	-	-	-
Western Cape	-	-	-	-	-	-	-	-
Northern Cape	434	530	784	21 318	1 188 658	513 761	766 435	2 491 920
North West	-	-	-	-	-	-	-	-
Subtotal	20 341	22 237	43 686	1 329 363	52 174 542	30 704 684	53 863 945	138 158 798
Negotiated								
Limpopo	2 584	3 129	5 848	159 231	7 879 831	5 495 188	6 317 849	19 863 660
Gauteng	-	-	-	-	-	-	-	-
Mpumalanga	-	-	-	-	-	-	-	-
Kw aZulu-Natal	6 061	5 628	8 982	302 588	9 609 747	6 567 754	6 964 689	23 465 449
Free State	444	1 296	432	36 097	1 845 353	1 145 946	1 738 476	4 768 044
Eastern Cape	-	-	-	-	-	-	-	-
Western Cape	-	-	-	-	-	-	-	-
Northern Cape	-	-	-	-	-	-	-	-
North West	516	974	650	60 842	3 070 031	1 388 961	1 600 075	6 122 048
Subtotal	9 605	11 027	15 912	558 758	22 404 962	14 597 849	16 621 089	54 219 201
Total	80 812	85 441	182 101	6 858 526	272 932 996	95 298 136	277 691 008	653 129 019

Source: Department of Transport

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In terms of the National Land Transport Act (2009), subsidised bus services that are currently managed by provincial government will be integrated into the metropolitan based networks, where these services have their destination in the metropolitan municipality. To date, no metropolitan municipality has been assigned the function. However, some progress has been made to achieve this in Cape Town.

#### Integrated rapid public transport networks

Public transport allocations have increased significantly since the introduction of the public transport infrastructure and systems grant in 2005/06.

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
		Outcome		Estimate	Mediur	n-term esti	mates
Rmillion							
Category A (Metros)	423.5	934.0	2 284.1	2 102.3	3 177.2	3 940.0	3 340.0
Johannesburg	184.0	329.0	661.2	652.8	1 300.5	1 200.0	800.0
Cape Tow n	120.0	230.0	424.8	332.5	1 018.4	1 600.0	900.0
eThekw ini	11.8	125.0	624.9	376.9	330.0	20.0	20.0
Ekurhuleni	27.7	13.0	7.6	27.7	20.0	20.0	20.0
Tshw ane	11.0	105.0	260.0	565.2	100.0	500.0	800.0
Nelson Mandela	69.0	132.0	305.5	147.1	408.3	600.0	800.0
Category B (Locals)	94.0	210.0	635.7	315.9	522.3	485.0	785.0
Secondary cities - 21	94.0	196.0	635.7	315.9	522.3	485.0	785.0
Buffalo City	-	-	8.6	31.2	71.5	400.0	700.0
Mangaung	29.5	25.0	242.6	82.2	166.0	15.0	15.0
Matjhabeng	-	-	-	-	-	-	-
Emfuleni	-	-	-	-	-	-	-
Mogale City	-	-	-	-	-	-	-
Msunduzi	-	-	2.1	7.7	15.0	15.0	15.0
Mbombela	1.0	55.0	170.5	60.8	120.0	15.0	15.0
Sol Plaatje	1.5	11.0	-	-	-	-	-
Polokw ane	10.5	50.0	143.2	66.1	60.3	20.0	20.0
Madibeng	-	-	-	-	-	-	-
Rustenburg	-	33.0	68.7	67.8	89.6	20.0	20.0
Tlokw e	1.0	-	-	-	-	-	-
Matlosana	30.5	22.0	-	-	-	-	-
Drakenstein	-	-	-	-	-	-	-
Stellenbosch	20.0	-	-	-	-	-	-
George	-	-	-	-	-	-	-
Towns - 140	-	-	-	-	-	-	-
Mostly rural - 70	-	14.0	-	-	-	-	-
Category C (Districts)	1.5	30.0	-	-	-	-	-
Category B + C	95.5	240.0	635.7	315.9	522.3	485.0	785.0
Total	519.0	1 174.0	2 919.8	2 418.2	3 699.5	4 425.0	4 125.0

ble 13.4	Public transport	infrastructure	and syter	ns grant a	allocations,	2006/07 -	2012/13
	0000/01		0000/00	0000/40	0040444	0044440	0040/40

Source: National Treasury local government database

Between 2006/07 and 2009/10, the average annual increase was 67 per cent. Over the MTREF period, the allocations are expected to continue to increase above inflation, with an estimated average annual increase of 19.5 per cent.

Initially, metros were unable to meet expenditure targets. This was largely due to the function being relatively new, the publication of the public transport strategy only being approved in 2007, and a lack of focus due to 2010 FIFA World Cup operational preparations.

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
		Outcome		Estimate	Mediu	m-term estim	nates
Rmillion							
Category A (Metros)	415.4	923.2	2 284.1	1 810.2	3 177.2	3 940.0	3 340.0
Johannesburg	184.0	329.0	661.2	652.5	1 300.5	1 200.0	800.0
Cape Tow n	120.0	230.0	424.8	332.5	1 018.4	1 600.0	900.0
eThekw ini	11.8	125.0	624.9	376.6	330.0	20.0	20.0
Ekurhuleni	20.1	2.2	7.6	0.6	20.0	20.0	20.0
Tshw ane	11.0	105.0	260.0	300.9	100.0	500.0	800.0
Nelson Mandela	68.6	132.0	305.5	147.1	408.3	600.0	800.0
Category B (Locals)	88.9	210.0	589.3	123.3	522.3	485.0	785.0
Secondary cities - 21	88.9	196.0	589.3	123.3	522.3	485.0	785.0
Buffalo City	-	-	3.2	0.8	71.5	400.0	700.0
Mangaung	29.2	25.0	203.7	_	166.0	15.0	15.0
Matjhabeng	-	-	_	_	_	-	-
Emfuleni	-	-	_	_	_	-	-
Mogale City	-	-	-	-	-	-	-
Misunduzi	-	-	_	0.0	15.0	15.0	15.0
Mbombela	0.8	55.0	170.5	-	120.0	15.0	15.0
Sol Plaatje	1.5	11.0	-	-	-	-	-
Polokw ane	10.4	50.0	143.2	54.6	60.3	20.0	20.0
Madibeng	-	-	-	-	-	-	-
Rustenburg	-	33.0	68.7	67.8	89.6	20.0	20.0
Tlokw e	0.6	-	-	-	-	-	-
Matlosana	30.5	22.0	-	-	-	-	-
Drakenstein	-	-	_	_	-	-	-
Stellenbosch	15.9	-	_	_	_	-	-
George	-	-	-	-	-	-	-
Towns - 140	-	-	-	_	-	-	-
Mostly rural - 70	-	14.0	-	_	-	-	-
Category C (Districts)	1.3	15.4	-	_	-	-	-
Category B + C	90.3	225.4	589.3	123.3	522.3	485.0	785.0
Total	505.7	1 148.6	2 873.4	1 933.5	3 699.5	4 425.0	4 125.0

Table 13.5 Expenditure of the public transport infrastructure and systems grant, 2006/
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Source: National Treasury local government database

Expenditure by Johannesburg metro has increased from R184 million in 2006/07 to R652.5 million in 2009/10 and will continue to increase over the MTREF, which will cover the completion of phase one of the Rea Vaya services. Similarly, Cape Town metro has increased expenditure from R120 million in 2006/07 to R332.5 million in 2009/10 and will also increase over the MTREF to introduce its local variant of bus rapid transit, known as the My CiTi services. Nelson Mandela Bay metro has also increased expenditure significantly from R68.6 million in 2006/07 to R305.5 million in 2008/09, with road construction being initiated and planning finalised. Full operational plans and financial modelling for public transport investments are still under way in Tshwane, eThekwini and Ekurhuleni metros.

#### Passenger rail transport

Investment in passenger rail has increased significantly in line with the national rail plan, which aims to stabilise passenger numbers, increase levels of service and expand services. The key areas of expenditure are in the metropolitan areas, and passenger trips in the five key regions are reflected in table 13.6.

Investment in passenger rail has increased significantly in line with the national rail plan

	Annual passenger
	trips
Region	
Western Cape	201 538 211
Eastern Cape	13 909 404
Kw aZulu-Natal	87 960 091
Witw atersrand	242 099 325
City of Tshw ane	88 485 561
Total	633 992 592

Table 13.6 Passenger rail transport outputs. 2009/10

Source: Passenger Rail Agency SA

The increased investment in passenger rail has increased the number of coaches in the system, which should lead to increased levels of service. The table below provides an overview of key performance indicators, showing little actual change experienced, but with more positive projections over the MTREF.

Table 13.7 Selected performance and operations indicators

		Past		Current		Projections	;
Indicator	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Total number of coaches overhauled	375	310	489	680	700	700	500
Percentage of Metrorail trains on time (A corridors)	89.0%	87.0%	86.0%	88.0%	90.0%	92.0%	93.0%
Metrorail: Passenger trips (number of commuters in the system)	512m	530m	592m	385m	677m	745m	815m
Metrorail: Fare revenue (R million)	1 020	1 060	1 191	787	1 347	1 465	1 610
Metrorail: Accidents per million train km	-	1.2	1.2	1.7	1.6	1.5	1.5
Service efficiency index (R): Subsidy per passenger km	-	0.17	0.14	0.15	0.15	0.15	0.15

Source: National Treasury, 2009 Estimates of National Expenditure

The challenges in addressing mobility needs in South African cities were captured by the Cities Network<sup>13</sup> as follows:

- Trip distances can be three times those of the average trip in countries with denser cities.
- Car ownership is high and on the increase.
- Modal efficiencies are decreasing as bus services are losing market share to minibus taxis.
- The industry needs to be more responsive to off-peak travel needs.
- The safety and security concerns of public transport users need to be addressed.

There has been progress with integrated rapid networks in certain cities, such as Johannesburg and Cape Town Despite these challenges, there has been progress with integrated rapid networks in certain cities, such as Johannesburg and Cape Town. Key constraints remain high operational costs, the lack of a policy guiding subsidisation, high private vehicle usage, the complexities in integrating ticketing across modes of transport and the need to conclude negotiations with existing operators – mostly in the taxi industry.

<sup>&</sup>lt;sup>13</sup> Cities Network, Sustainable Cities, 2009.

#### **Community assets**

Community assets include parks and gardens, recreational facilities, sports fields, stadiums, community halls, libraries, clinics, theatres, museums and art galleries. Most cities also have programmes that seek to upgrade urban spaces such as business hubs, pedestrian paths and bridges, parks, taxi ranks, customer care centres, pension payout facilities and wetlands. Table 13.8 provides an overview of expenditure on community assets.

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
		Outcome		Estimate	Medium-term estimates		
Rmillion							
Category A (Metros)	1 665.0	2 121.3	3 098.6	2 695.3	1 526.3	1 097.2	1 109.6
Johannesburg	605.9	99.1	626.6	100.8	175.5	125.2	159.8
Cape Tow n	301.0	1 197.4	1 323.5	1 514.0	365.5	178.7	181.6
eThekw ini	99.8	53.7	57.9	59.7	176.3	71.8	68.4
Ekurhuleni	110.3	131.5	280.1	383.2	268.5	274.7	265.0
Tshw ane	84.1	242.9	293.9	308.4	207.0	276.1	308.5
Nelson Mandela	463.9	396.8	516.6	329.4	333.4	170.7	126.2
Category B (Locals)	241.9	2 731.4	2 181.1	2 357.5	1 531.5	722.0	799.7
Secondary cities - 21	665.8	1 830.9	1 207.5	1 347.6	600.8	182.7	182.7
Buffalo City	38.6	49.1	52.8	127.2	23.1	23.3	23.3
Mangaung	62.3	190.3	191.9	59.5	5.0	65.3	65.3
Matjhabeng	4.0	1.0	4.1	15.7	21.9	18.1	18.1
Emfuleni	15.9	-	98.6	41.7	60.5	-87.2	-87.2
Mogale City	6.3	8.9	16.5	16.1	31.8	18.5	18.5
Msunduzi	28.2	17.5	2.6	32.3	33.3	7.3	7.3
New castle	9.4	-	1.7	1.8	21.9	1.0	1.0
uMhlathuze	16.8	15.9	22.8	7.2	30.0	31.1	31.1
Govan Mbeki	-	0.1	14.8	12.0	19.1	14.6	14.6
Emalahleni (Mp)	8.2	3.1	65.6	21.2	-	-	-
Steve Tshw ete	26.3	15.9	30.5	67.0	58.2	11.9	11.9
Mbombela	309.0	861.6	138.9	272.4	6.2	-	-
Sol Plaatje	1.5	76.3	19.5	21.7	50.0	-	-
Polokw ane	64.9	481.9	454.3	497.8	119.5	6.3	6.3
Madibeng	7.8	16.0	13.7	26.2	24.4	25.9	25.9
Rustenburg	27.1	47.5	12.8	5.6	7.3	2.3	2.3
Tlokw e	2.3	-	5.6	4.4	2.9	3.4	3.4
Matlosana	2.9	18.5	12.8	20.9	39.2	17.0	17.0
Drakenstein	16.7	7.6	24.0	10.0	28.8	10.1	10.1
Stellenbosch	7.9	4.9	13.6	68.1	5.2	9.8	9.8
George	10.0	14.8	10.6	18.7	12.5	4.1	4.1
Other Local municipalities	608.5	900.5	973.6	1 009.9	930.7	539.2	616.9
Category C (Districts)	204.6	114.3	380.5	446.2	115.3	90.4	207.1
Category B + C	446.5	2 845.7	2 561.7	2 803.7	1 646.8	812.3	1 006.8
Total	2 111.5	4 967.0	5 660.3	5 499.0	3 173.0	1 909.5	2 116.3

Table 13.8 Municipal capital expenditure on community assets, 2006/07 - 2012/13

Source: National Treasury local government database

Investments in community assets appear to be extremely volatile. They have increased significantly between 2006/07 and 2009/10, growing at 37.6 per cent per year. This increase was largely due to investments in sports facilities linked to the 2010 FIFA World Cup. Over the MTREF, expenditure is projected to decrease in metros, and secondary cities.

In addition to the above expenditure, the neighbourhood development partnership grant (NDPG) to local government supports the development of community infrastructure and services, in partnership with the private sector. All metros are represented in the portfolio of this grant. They take up 40 per cent of the share of the grant that has been allocated to a total of 57 municipalities in South Africa since the grant was introduced in 2006. Metros have already been responsible Over the MTREF, expenditure on community assets is projected to decrease in metros, and secondary cities

	NDPG	Total NDPG	% spending
	Cum ulative	Award	
	spending		
Rthousand			
eThekw ini	206 733	693 463	29.8%
Johannesburg	185 911	517 446	35.9%
Tshw ane	36 725	701 581	5.2%
Ekurhuleni	67 165	164 758	40.8%
Cape Tow n	122 829	950 851	12.9%
Nelson Mandela	47 100	299 079	15.7%
All Other NDPG-Recipients	653 495	5 062 661	12.9%
Total	1 319 958	8 389 839	15.7%

for R666 million expenditure on the grant to March 2010. Progress, however, is not uniform across municipalities, as table 13.9 shows.

Source: National Treasury local government database

Much effort is being directed at internal institutional coordination necessary to develop township regeneration plans that align interests for effective programme design and project packaging. Embedding the neighbourhood development partnership grant programme in the planning and budgeting process of municipalities requires that the appropriate skills and capacity are put in place to align, sequence and coordinate sectoral investment interests in targeted urban spaces.

### Institutional and fiscal arrangements for managing cities

The demographic, economic and spatial challenges that cities face are exacerbated by institutional and fiscal misalignments that have prevented cities from responding adequately to these pressures. Key problems include:

- Sectoral discontinuities in the performance of functions: Despite constitutional imperatives, sectoral policy frameworks continue to promote duplication and fragmentation in the delivery of built environment services. In particular:
  - Provinces continue to manage the national housing programme and various public entities hold significant, strategically located urban land. Housing development has remained on the periphery of cities to take advantage of low land costs. The cost of these locational choices are felt by poor people, and municipalities.
  - Public transport services continue to be subsidised by national government via a grant to provinces, with little role for city administrations in public transport. This means that investment choices are separated from the institutions that have to eventually carry the costs associated with the location of those investments.

The demographic, economic and spatial challenges that cities face are exacerbated by institutional and fiscal misalignments

#### International lessons with large city management

A study was undertaken in June 2010 that reviewed city management models and challenges in Brazil, China, India and Canada and assessed the policy responses by local, provincial and central governments. The study aimed to stimulate thinking on South African cities specifically in relation to: (i) the appropriate scope of powers and functions required for effective city management; (ii) the role of other spheres (tiers) of government in supporting urban development; (iii) the appropriate structuring of city governance; and (iv) the fiscal framework for financing urban development. Three key themes emerged from the review:

*Empowering cities to integrate urban development:* All countries have accepted the need to give greater powers to city governments to manage built environment infrastructure and services. Countries have sought to strengthen the integration of urban service delivery to obtain a greater return on public investments (India, Brazil), to accelerate investment spending (China) and to improve asset maintenance (Canada). If cities are 'choking on their own growth', then the policy response has been to 'loosen the knot' through providing them with adequate powers and functions to manage their built environments. The key functions assigned to cities have been those of public transport, housing, basic services infrastructure and land use management. In India, extensive administrative approval is required for cities to proceed with investments, even in relation to functions assigned to them. In states such as Gujarat, where these approvals have been relaxed, investment is more rapid. Similarly, in China, where approvals are technically required, in reality this is only necessary for large scale ('mega-project') investments. In Brazil, the administrative discretion of cities has been expanded by strengthening their access to national decision-making processes. Empowering cities to manage their built environments appears to have been instrumental in forcing clear policy trade-offs to be made at the city level.

A noticeable trend is for countries to pursue integrated spatial development through adopting a sectorled investment approach encouraged by national government. In China and India, strong support for public transport infrastructure investments is in effect exercising a coordinating function at the city level. In Brazil, a city led approach to slum upgrading plays a similar role. This highlights the power of specific, limited national priorities to guide city investments and provide incentives for integration across sectors. It has allowed a break with historical patterns of investment, particularly with the tendency to prioritise investment in roads at the expense of public transport. This has begun to encourage greater integration in the overall spatial management of cities that is particularly noticeable in China and Brazil, as well as the more progressive cities in India, such as Ahmadabad.

Creating a sustainable, pro-investment fiscal framework: Cities in all four countries are actively seeking mechanisms to achieve a step-change in levels of urban infrastructure investment. In India, a national fiscal incentive programme (JnNURM) aims to guide and assist cities in making new investments, contingent on the introduction of a pre-specified list of 'urban reforms'. Central government in China co-finances urban mega-projects that fit with national priorities, while Infrastructure Canada provides fiscal incentives for infrastructure maintenance. In Brazil, government has introduced grant programmes to finance additional urban investments rather than providing additional taxes to cities, largely as it wants to incentivise improved performance by city governments. National grant programmes have been largely successful, but require ongoing management and fine-tuning. The JnNURM in India has been criticised for crowding out private sector capital from municipal financing. The Chinese approach, where cities are left to finance all infrastructure outside of national priority schemes has led to significant borrowings by cities (although within a poorly constructed borrowing framework).

Developing innovative approaches to funding housing needs: All countries have realised that government alone is unable to raise the resources necessary to finance urban housing needs. This has led to a search for financing mechanisms that move beyond subsidies. In particular:

- The demand for housing is increasingly being disaggregated by market segment at a city and subcity level, with policy focused on ensuring that each segment is adequately serviced. Greater emphasis is being placed on gaps in the housing market, with public resources used to complement private credit markets in enabling low income households to enter the market.
- The mobilisation of the private sector to address housing supply shortage across the entire housing market, often through direct investment incentives such as tax deferrals or exemptions to the property development sector (as in Brazil).
- The mobilisation of households themselves to make financial contributions towards their own housing needs. In all other countries all households are expected to make a partial co-payment in return for the receipt of a public subsidy.

An opportunity remains for South Africa to learn from other countries, and to then adapt the ideas to the South African context.

- Duplication of land regulation responsibilities: This duplication between cities and provinces has significantly expanded the time required to obtain development approvals, imposing deadweight costs on the economy. Efforts to overcome delays in land release, even at the national government level, often fail to account for the role of cities in spatial management. This undermines city efforts to guide spatial planning, and contributes to diluting the impact of public spending.
- Failure to adequately exploit existing revenue sources: Most funding for infrastructure investment must ultimately come from within city administrations. Grant funding to municipalities has expanded, but own sources of capital finance have not been as buoyant. Beyond the impacts of the recession on local revenues, this reflects a substitution of own funding with increasing grant funding. An opportunity exists for cities to enhance existing own source so finance, such as development charges levied on new property developments, and additional borrowing. Grants have the potential to be used as a form of security that can reduce the cost and expand the tenure of municipal borrowings.
- Weak asset management practices at city level: In most cases asset registers are not fully up to date, and asset maintenance and replacement is under-funded. New accounting treatment for assets reveals significant historical underfunding of asset management. The growing outcomes focus of grant programmes will enable national government to monitor municipal prioritisation of new asset creation as well as asset maintenance, refurbishment and replacement.

City administrations have access to significant institutional and human resource capacity. Most large urban municipalities have been able to almost double their levels of capital expenditure in the last two years (and increase its proportion to operating expenditures). Although skills gaps remain, city administrations are increasingly able to respond to this challenge.

# Reconsidering the fiscal framework for large cities

Municipalities are closer to communities and businesses, and thus able to determine and respond to their specific local needs more accurately and rapidly than other spheres of government. Recognising this, government is reviewing the existing institutional arrangement and fiscal framework to strengthen the management of South African cities. The programme explicitly seeks to differentiate cities from other municipalities in order to recognise their specific contexts and needs. In particular, cities need to play a far larger role in economic growth, dealing with urban poverty and facilitating improved built environment outcomes, across land management, transport and human settlement sectors.

Government is reviewing the existing institutional arrangement and fiscal framework to strengthen the management of South African cities

#### Spatial planning and land-use management

Land use management planning in South Africa is governed by various provincial ordinances, including the Development Facilitation Act (1995) and the Less Formal Township Establishment Act (1991).

The Constitutional Court judgment on the case between the City of Johannesburg Metropolitan Municipality and the Gauteng Development Tribunal highlighted the need to ensure legislative clarity regarding the roles of provincial and local government. The City of Johannesburg, which was joined by eThekwini, successfully argued that the Development Facilitation Act was unconstitutional in that it intruded on municipal powers with respect to land use management. The judgment confirmed that the re-zoning of land and the establishment of townships are exclusively the function of local government in support of municipal planning.

The judgment highlights the flaws in existing legislation and the need to finalise comprehensive land use legislation. There is currently a process under way to review land use management legislation, in order to clarify roles and functions and to empower municipalities to fulfil their constitutional mandate in this regard. As housing and public transport play such a vital role in land use patterns, the consolidation of these functions at the local level will provide both the leverage to change spatial patterns as well as improve accountability at the level of delivery.

#### Devolution of the housing function

To support coordinated development, municipalities are the logical place to plan and provide for human settlement development. Housing delivery has declined since 2006/07, despite the strong growth in the human settlements development grant. The underperformance of the housing programme signals an inefficient subsidy system that does not meet the needs of subsidy beneficiaries. The Housing Act (1997) provides for the accreditation of local government to administer housing programmes to enable them to plan the implementation of their developmental objectives in a coordinated manner through a three step process:

Level 1 - delegation	Beneficiary management, subsidy budget planning and allocation, and priority programme management and administration	
Level 2 - delegation	Full programme management and administration of all housing programmes and subsidy instruments	
Level 3 – assignment	Financial administration, which involves the forma assignment of all functions including subsidy payment disbursements	

Progress on accreditation has been slow. Five metros have recently been accredited to level two, while the two new metros, Mangaung and Buffalo City, will be accredited to level one. No municipality has been accredited to level three. This limits the ability of municipalities to structure housing subsidies to facilitate planning, development and improve service delivery. The process has been hampered by concerns relating to capacity at the local level, among other things. Cities face The slow accreditation process limits the ability of municipalities to structure housing subsidies to facilitate planning, development and improve service delivery

There is currently a process under way to review land use management legislation to clarify roles and functions and to empower municipalities to fulfil their constitutional mandate Serviced urban land and housing top structures are key to the delivery of sufficient, affordable housing infrastructure and service costs, which escalate when settlements are not well located; it is therefore critical to overcome the delay in full accreditation to ensure that the right levers are in place to improve the spatial development of cities.

The weak linkage between demand for housing and supply can be addressed on a planning level through increasing densities and stimulating supply as a more sustainable solution to manage increase housing prices. There are two factors that are key to the delivery of sufficient, affordable housing: serviced urban land and housing top structures.

The more rapid development and release of serviced urban land is being supported through the urban settlements development grant. This provides funding directly to cities to buy, service and release land for urban development specifically for low income households. Already, upgrading informal settlements represent a current municipal function, in the form of providing serviced sites. To facilitate the upgrading of more informal settlements, investments in these areas need to be the responsibility of municipalities.

The development of houses on serviced land units is primarily the responsibility of households. Affordability constraints mean that poor households struggle to make the necessary investments. Housing finance policies can assist these households, including through the provision of subsidies. At present, most housing subsidies are provided in the form of completed housing units. In future, alternative and more incremental models of supporting housing investments are increasingly becoming important.

Municipal accreditation for the housing function is necessary to assist cities in guiding housing production in relation to their spatial plans and the availability of land and infrastructure. This would allow cities to address the housing need of households that are unable to access the subsidised market, but for whom affordable housing stock is not available through private finance.

#### Public transport regulation

The devolution of public transport regulatory functions to local government will allow for the integration of the planning, regulation and management of public transport services at the local level. The National Land Transport Act (2009) provides clarity on roles and responsibilities for public transport services, and delineates the public transport function as services that happen within the boundaries of the municipality or between municipalities if there is an agreement. The regulation of bus and taxi routes and operator licensing is currently provided by provincial licence boards. The National Land Transport Act has divided responsibility for these services as follows:

- local government is responsible for services in a municipality or between municipalities where the municipalities have an agreement;
- provincial government is responsible for services between municipalities; and

The devolution of public transport regulatory functions to local government will allow for the integration of the planning, regulation and management of public transport services at the local level • national government is responsible for services between provinces and tourism services.

Local regulation of public transport services, subsidy levels and prices (fares) will support the coordination and control necessary for the creation of integrated public transport networks across transport modes. This scope of control is a vital element of the National Land Transport Act, specifically during the initial phase of its implementation. In this phase municipalities are required to negotiate with existing transport operators on compensation for losses they may suffer due to the introduction of new technologies, transport modes and routes, as well as negotiate modifications to the subsidy system.

The responsibility for the planning, operation and subsidisation of rail public transport services currently lies with national government in the form of the Passenger Rail Agency of South Africa (PRASA). To provide for improved integrated planning, the National Land Transport Act provides for local government to support the planning of regional commuter services. To improve accountability for rail public transport services, processes are under way to create integrated planning committees as required by the Act to support local planning and operational subsidisation of rail. PRASA will remain the provider of passenger rail services and be funded for their capital and operational needs, but cities will over time enter into agreements with the agency for services, specify their preferred level of services and ensure alignment with their integrated public transport networks. Ultimately, local government will also need to play a key role in the determination of ticket prices for rail services.

Centralised subsidisation limits the extent to which urban development objectives relating to densification, infrastructure efficiency and transport efficiency can be reached. To allow for more flexible local responses to urban design and spatial development, local government should take responsibility for setting subsidies and use specific forms of subsidisation to facilitate better land use management and the performance of the municipal public transport function. This includes the operational subsidisation of bus rapid transit systems, bus and rail operational subsidies, as well as other capital support in the form of taxi recapitalisation.

Internationally, public transport is a subsidised service, even in densely populated metropolitan areas in developed and developing countries. The subsidisation of public transport in South Africa intends both to address the market failure that exists due to long distances between settlements and work opportunities and provide for a social wage to reduce the burden of transport on low income earners. Fare revenue is therefore not intended to cover operational costs because of the low densities of South African cities and low levels of affordability in most communities using the services.

Government's 2007 public transport strategy provides for public transport services to be provided on a per km basis or gross cost basis. Therefore, the ridership risk for the services lies with the city. This approach, compared to leaving the ridership risk with operators, ensures better outcomes through reduced speeding and less

Local government should take responsibility for setting subsidies to facilitate better land use management and the performance of the municipal public transport function overcrowding. To correct the misalignment between public transport operational risks and the ability to mitigate these risks, it may be necessary for provision to be made for a local revenue source to provide sufficient funds to continue to expand public transport services and cover operational shortfalls over the long term. As indicated above, increasing fares to address operational shortfalls will work against the policy objective of keeping transport costs at below 10 per cent of household expenditure. Balancing funding contributions in this area between local and national government will improve local accountability, increase value for money and support transit based development. Significant policy work is necessary in this area to guide the way forward.

#### Strengthening own revenue potential and effort

Cities have significant but underutilised own revenue potential. Enhanced revenue administration can increase receipts, improved engagement with private lenders can lower the rate and lengthen the tenure of borrowing, while opportunities exist to strengthen current sources of capital finance, such as development charges. The process of reviewing the local government fiscal framework will need to carefully consider whether there is a need to expand own revenue sources for cities.

The financial impact of current measures to support free basic services needs to be evaluated. There is a need to understand the extent to which they are being subsidised by the local government equitable share or by cross-subsidies embedded in the rates and service tariffs charged to different customer groups. There is also a need to evaluate whether the free services are actually reaching the intended beneficiaries or whether non-poor households are benefitting disproportionately. There is concern that municipal expenditures on free services is crowding out other expenditure priorities.

In other developing countries no households receive free services – all citizens are expected to pay even a very basic amount regardless of income level as a statement of citizenship. As observed elsewhere in the Review, extending the service-revenue link to more households has the potential to enhance municipal accountability and sustainability.

# Conclusion

South Africa's large urban municipalities are vastly different from their more rural counterparts in terms of demographic, economic and spatial trends. Contexts are rapidly diverging and cities (and rural areas) increasingly require a different policy treatment to allow a focus on their specific contexts and challenges, as well as to account for the institutional capacity they have and are capable of developing.

Like in many countries, cities face the challenges of managing growth in population, physical size, levels of poverty and demands for economic infrastructure. Failure to adequately manage these pressures

The process of reviewing the local government fiscal framework will need to consider whether there is a need to expand own revenue sources for cities within the resources available leads to declining levels of access to services, congestion of infrastructure networks, slum developments and growing bottlenecks to economic growth.

The assignment of the housing and public transport functions to large urban municipalities will facilitate better management of the urban built environment, especially when the regulatory and subsidy-setting powers associated with these functions are also assigned to cities. This will provide these municipalities with the flexibility and the discretion to address their specific needs and improve accountability to citizens. Housing and transport play a major part in any citizen's life and ensuring that accountability is at the local level will allow improved public participation in the planning of housing developments and public transport routes and ensure direct feedback on the services provided.

Balancing the provision of amenities with the provision of public transport requires competent city planning units that are able to develop a long term vision of city spatial development and balance both the short term provision of amenities with the provision of public transport. For example, transit-based development approaches offer the prospect of encouraging housing and economic opportunities along transport networks and provides for reduced transport costs, travel times and carbon emissions.