

B

Public-sector infrastructure update

■ Introduction

This annexure provides an update on the status of government's major infrastructure projects. It reports on planned public-sector infrastructure spending, and presents a table of major projects under way or in preparation.

In line with the medium-term strategic framework (MTSF) and the National Development Plan, the 2016 Budget prioritises spending on social and economic infrastructure such as schools, health facilities, roads and transport, energy, and water and sanitation. It also continues to fund programmes to improve the quality of infrastructure spending and the capacity of government to plan and implement capital projects.

■ Trends in public infrastructure spending

Between 1998/99 and 2014/15, the public sector spent more than R2.2 trillion on infrastructure. The amount spent each year increased from R48.8 billion in 1998/99 to R259.7 billion in 2014/15, an average annual increase of 7.5 per cent after discounting inflation. State-owned companies such as Eskom, Transnet, the Central Energy Fund, the South African National Roads Agency Limited (SANRAL) and the Passenger Rail Agency of South Africa have been the biggest contributors to public-sector infrastructure spending. Provincial departments and municipalities have also increased infrastructure spending significantly to construct schools, hospitals, clinics and community-related infrastructure.

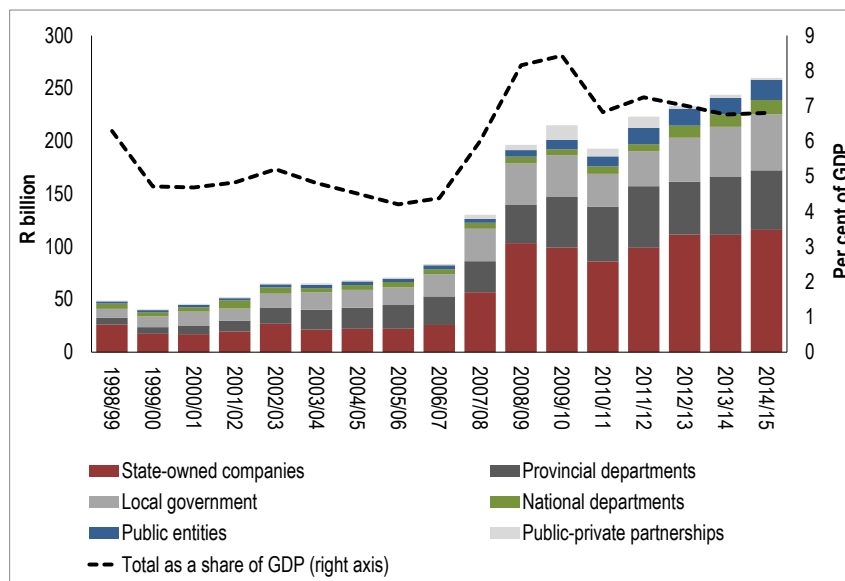
Definitions of infrastructure spending

The annexure presents estimates of infrastructure spending across the public sector, which includes national, provincial and local government, as well as state-owned companies and other public entities. Public funds allocated to public-private partnerships are also included.

The data in this annexure may differ from infrastructure or capital spending estimates presented elsewhere in the 2016 *Budget Review*. Here, "infrastructure" is defined broadly, including expenditure on new and replacement assets, maintenance and repairs, upgrades and additions, and rehabilitation, renovation and refurbishment of assets. Capital and interest payments are also included in the definition. By contrast, "capital spending" typically excludes maintenance and finance charges.

The annexure also includes expenditure on public housing as part of infrastructure spending. In accounting terms, housing subsidies are usually defined as transfers rather than capital spending.

Figure B.1 Public-sector infrastructure spending, 1998/99 – 2014/15



Source: National Treasury

Public-sector infrastructure expenditure as a share of GDP has increased from an average of 5 per cent between 1998/99 and 2004/05, to an average of 6.6 per cent between 2005/06 and 2014/15. Both general government agencies and public corporations have increased their spending substantially. However, spending on social infrastructure, which includes schools and hospitals, has not kept pace with GDP growth in recent years.

Public-sector infrastructure spending highlights

Table B.1 summarises public-sector infrastructure plans for the next three years. The data in the table combines infrastructure financed at national, provincial and local government level with the expenditure estimates received from state-owned companies and other public entities. Public-sector infrastructure spending over the medium-term expenditure framework (MTEF) period is estimated to total R865.4 billion. This year's infrastructure estimates include public housing and bulk infrastructure constructed through the *human settlements development grant*, which amounts to R61.6 billion. Although these assets are transferred to homeowners and not retained on the public-sector balance sheet, this spending is an important public contribution to the built environment.

State-owned companies continue to account for the bulk of capital investment, spending a projected R337 billion over the next three years. Provinces are expected to spend R206.3 billion on public infrastructure over the same period, while municipalities are forecast to spend R175.6 billion.

Economic infrastructure accounts for 75 per cent of total public-sector infrastructure spending, mainly by state-owned companies. These funds are used to expand power-generation capacity, upgrade and expand the transport network, and improve sanitation and water services. Social services infrastructure accounts for 22 per cent of total public-sector infrastructure spending, while education and health accounts for 6 per cent and 3 per cent respectively.

Table B.1 Public-sector infrastructure expenditure and estimates, 2012/13 – 2018/19

R billion	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	MTEF
	Outcomes			Estimates				Total
Energy	75.2	69.6	67.8	69.7	50.8	49.9	79.9	180.7
Water and sanitation	22.5	25.8	29.5	35.2	43.1	43.1	45.9	132.1
Transport and logistics	69.5	76.4	90.9	99.5	96.2	105.3	90.0	291.6
Other economic services	9.4	13.5	13.0	16.6	17.2	14.4	14.5	46.2
Health	9.7	10.0	7.8	9.2	8.8	9.4	9.8	28.1
Education	11.3	13.7	15.4	17.4	17.7	17.8	18.4	53.9
Human settlements ¹	15.6	17.0	17.1	18.3	18.3	21.1	22.3	61.6
Other social services	13.7	12.9	13.1	16.6	16.0	16.2	17.0	49.2
Administration services ²	6.3	5.0	5.2	8.0	6.6	7.6	7.8	22.0
Total	233.3	243.9	259.9	290.4	274.8	284.9	305.8	865.4
National departments	11.4	11.9	13.5	17.3	19.6	16.4	18.3	54.3
Provincial departments	50.3	55.2	56.4	62.7	63.6	69.8	72.9	206.3
Local government	41.7	47.1	53.2	56.6	58.2	57.5	59.9	175.6
Public entities ³	16.1	15.4	19.2	28.7	26.2	29.4	30.4	86.0
Public-private partnerships	2.6	3.0	1.8	1.7	1.9	2.0	2.1	6.1
State-owned companies ³	111.3	111.2	115.8	123.4	105.2	109.7	122.2	337.0
Total	233.3	243.9	259.9	290.4	274.8	284.9	305.8	865.4

1. Human settlements includes public housing to households and bulk infrastructure amounting to R61.6 billion over the MTEF period

2. Administration services include infrastructure spending by the Department of International Relations, the Department of Home Affairs, the Department of Public Works, Statistics South Africa and their entities

3. Public entities are financed by capital transfers from the fiscus and state-owned companies are financed from a combination of own revenue, borrowings and private funding

Source: National Treasury

Energy

Energy expenditure is expected to total R180.7 billion over the next three years, accounting for about 21 per cent of total public-sector infrastructure spending. Eskom accounts for the bulk of this expenditure. The first unit of Medupi was commissioned in August 2015. The remaining units of Medupi, Kusile and Ingula power stations will be brought on line over the next six years.

Table B.2 Eskom expenditure and estimates

R billion	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Medupi power station	12.1	10.2	8.4	9.1	7.7	6.6	12.7
Kusile	14.8	12.3	13.8	13.9	7.8	5.4	3.8
Ingula pumped-storage scheme	3.2	4.3	3.8	2.3	2.2	0.1	–
Matla refurbishment project	0.3	0.4	0.3	0.5	0.5	0.3	–
Komati	0.9	0.2	–	–	–	–	–
Duvha power station	–	–	0.3	0.4	0.3	0.3	0.4
765kV projects	0.8	0.6	0.9	1.0	0.4	0.2	–
Northern grid projects ¹	0.7	0.6	1.0	1.3	3.5	1.7	0.4
Cape grid projects ¹	1.5	0.8	0.6	0.8	1.9	1.2	0.4
Central grid projects ¹	0.7	0.7	0.5	0.3	1.6	2.0	0.3
Majuba rail	0.1	0.5	0.8	1.3	1.3	0.4	–
Other ²	24.9	27.3	23.9	29.4	14.1	23.8	54.1
Total	59.9	57.8	54.4	60.3	41.3	42.2	71.9

1. Grid projects involve installation of transmission lines, new transformers and upgrading of substations

2. Other represents a collection of projects to enhance the system at generation, transmission and distribution level including maintenance projects

Source: Eskom

In addition to the specified projects in Table B.2, other projects totalling R54 billion will be undertaken to strengthen the system, including:

- Distribution and transmission projects
- Outage and technical projects
- Coal mine investments
- Independent power producer grid-connection projects
- Koeberg nuclear power plant fuel projects
- Asset purchases
- Power station maintenance.

Together with municipalities and the Department of Energy, Eskom will spend R17.6 billion on the Integrated National Electrification Programme between 2016/17 and 2018/19 to provide 840 000 households with access to on-grid electricity. The department, through designated service providers, will extend non-grid solar electrification programmes countrywide, with a target of 70 000 connections over the medium term. The department's budget for this work will increase from R166.4 million in 2016/17 to R201.6 million in 2018/19.

The Department of Energy has introduced several programmes to improve energy efficiency and reduce consumption over the medium term. The Clean Energy Programme will spend R1.2 billion on 131 146 solar water heating units. A total of R603.9 million has been allocated over the medium term to help municipalities save about 500 gigawatt-hours of energy per year by subsidising the installation of energy-efficient public lighting and retrofitting energy-efficient technology in municipal buildings.

Under the Renewable Energy Independent Power Producer Procurement Programme, which was launched in August 2011, the Minister of Energy has set a renewable energy capacity target (under Determination 1, 2 and 3) that makes provision for the supply of 13 225MW. By December 2015, a total of 102 projects had been contracted to provide a total of 6 377MW. Of this, 42 projects have been successfully completed and are operational, generating 2 045MW of electricity. The cumulative investment thus far is estimated at R194 billion, of which R53.4 billion (27.5 per cent of the total investment) is foreign direct investment.

The programme has procured 29 per cent of the 2020 target for renewable energy capacity set out in the Integrated Resource Plan and the National Development Plan.

Water and sanitation

Over the medium term, the Department of Water and Sanitation will continue to develop and rehabilitate water infrastructure, including dams, canals, water treatment works, reservoirs and pipelines to connect households. A total of R15 billion has been allocated to the *regional bulk infrastructure grant* to upgrade and refurbish ageing water infrastructure. In addition, R12 billion has been allocated to the *water services infrastructure grant* to improve water supply in poor communities and R5.5 billion to the Water Trading Entity for capital projects, including work to address acid mine drainage. Water boards, the Trans-Caledon Tunnel Authority and municipalities also raise their own funding for water infrastructure projects.

Over the medium term, the department and its implementing agencies will initiate phase 2C of the Olifants River water resources development project and the Steelpoort pumping station. Phases 2B and 2D of the Olifants River project are due to start over the medium term and are scheduled for completion in 2020.

Other projects to be completed during the MTEF period include the transfer of water from Xonxa Dam to Lukhanji Municipality in the Eastern Cape at a total project cost of R444 million. The project will alleviate the municipality's water shortfall and benefit the area's 52 050 households. The Wolmaransstad wastewater treatment works project in the North West province will also be completed over the medium term at a total cost of R154 million. To improve households' access to water and sanitation, the

Department of Water and Sanitation will provide funding and institutional support to municipalities and implementing agents in order to complete 234 small water and wastewater services projects.

The Trans-Caledon Tunnel Authority and the Lesotho Highlands Development Agency are implementing phase 2 of the Lesotho Highlands water project. Design and procurement for the construction of the Polihali Dam is under way. The dam will help meet growing demand and further augment the Vaal River system by 2.9 billion cubic metres per year. The Trans-Caledon Tunnel Authority will operate and maintain the existing delivery tunnel in South Africa, while the Lesotho Highlands Development Agency will implement the project in Lesotho.

Transport and logistics

Government and state-owned companies plan to spend R291.6 billion on transport and logistics over the medium term. This accounts for 34 per cent of total public-sector expenditure during this period. These investments will improve the national transport infrastructure network, enhance the mobility of people and services, reduce transport costs and facilitate regional trade. Revenues from services provided by state-owned companies will help fund infrastructure investment, complemented by national and provincial allocations for road construction and maintenance for the non-toll network.

Transnet's capital expenditure is expected to total R77 billion over the next three years. It plans to defer some capital projects due to reduced demand arising from slower economic growth and lower prices for commodity exports. Table B.3 shows Transnet's major projects over the MTEF period.

Table B.3 Transnet expenditure and estimates

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
R million							
Acquisition of 232 diesel locomotives - part of 1 064 locomotives	1 296	527	9 204	8 966	18 101	16 892	3 120
Capitalisation of infrastructure maintenance	6 273	8 120	10 602	6 966	10 254	11 621	12 229
Manganese rail phase 1 and 2	–	–	–	476	1 049	1 647	2 043
New multi-product pipeline phase 1	2 587	3 146	2 523	402	19	–	–
Acquisition of a new trailer suction hopper dredger	–	–	1 263	–	–	–	–
Procurement of wagons for Transnet's general freight business	2 601	3 340	–	–	–	–	–
Acquisition of 32 locomotives for export iron ore line and upgrade of power stations	–	477	–	–	–	–	–
Expansion of the coal line to increase capacity to 81 million tons	923	–	–	–	–	–	–
Transnet port terminal container handling equipment for Durban container terminal	798	–	–	–	–	–	–
Other	15 188	16 906	10 354	13 955	–	–	–
Total	29 666	32 516	33 946	30 765	29 423	30 160	17 392

Source: Transnet

Construction of a new multi-product pipeline to replace the existing line from Durban to Johannesburg is under way. Transnet expects the pipeline to be operational in 2016/17.

Over the MTEF period and beyond, major investments in roads, rail and ports include the following:

- SANRAL has been allocated R44.2 billion to maintain and improve the national non-toll and coal-haulage road network. It has also been allocated R3.7 billion to upgrade Moloto Road and R1.4 billion for the Gauteng Freeway Improvement Project.
- The *provincial roads maintenance grant* has been allocated R32.5 billion to rehabilitate road infrastructure.

- The Passenger Rail Agency of South Africa has been allocated R46.6 billion in capital transfers for new train sets for Metrorail, and to upgrade and refurbish infrastructure for both Metrorail and Shosholoza Meyl, the long-distance passenger rail service. Under this 10-year initiative, the agency is expected to receive the first 44 train sets over the medium term. A total of 578 Metrorail and Shosholoza Meyl coaches will be refurbished in each of the next three years. Part of the funding is earmarked to upgrade signalling systems and refurbish coaches.
- The Airports Company of South Africa will spend R7.6 billion on infrastructure improvements at major international airports over the next three years.

Human settlements

Over the medium term, R61.6 billion is allocated to provincial human settlements departments for low-income subsidy housing programmes, and R34.4 billion to metropolitan municipalities for bulk infrastructure, land and basic services, with particular emphasis on upgrading informal settlements. Government has also allocated R2.2 billion for social housing through the *capital restructuring grant*.

Health

Many health facilities require major refurbishments or replacement. Over the MTEF period, R28.1 billion will be invested in health infrastructure. A total of R15.8 billion from the direct *health facility revitalisation grant* will be transferred to provincial departments to fund new facilities and refurbishments. The health facility revitalisation component of the *national health insurance indirect grant* is allocated R2.7 billion over the medium term. This is to be used exclusively for infrastructure improvements in the 11 national health insurance pilot districts. The department is working closely with implementing agents to refurbish all 872 primary healthcare facilities in these districts and construct 216 new primary healthcare facilities.

Education

Provincial education departments will use R35.9 billion allocated through the *education infrastructure grant* over the medium term to ensure that schools are built and maintained according to the minimum norms and standards for school infrastructure.

The national Department of Basic Education will replace ageing, unsafe and other inappropriate infrastructure, and provide water, sanitation and electricity to schools across South Africa. Over the medium term, the department aims to replace 510 schools, and provide water to 1 120 schools, sanitation to 741 schools and electricity to 916 schools across South Africa through the *school infrastructure backlogs grant*. The grant is allocated R2.4 billion for this purpose in 2016/17.

An amount of R2.9 billion has been allocated over the medium term to the Department of Higher Education and Training to continue construction at two new universities – the University of Mpumalanga and Sol Plaatje University in the Northern Cape. New facilities include lecture rooms, laboratories and student accommodation. Existing universities will receive an allocation of R7.7 billion over the medium term for the construction of student accommodation, lecture halls and laboratories.

■ Strategic infrastructure projects

The Presidential Infrastructure Coordinating Commission coordinates the planning and implementation of strategic infrastructure projects (SIPs). The commission has approved 18 SIPs to support economic development and address service delivery across the country. Each SIP contains several infrastructure components and programmes. All nine provinces are covered, with more projects being implemented in poorer provinces.

Table B.4 provides a list of SIPs and their allocations from the national fiscus. In most cases, these amounts are augmented by investments financed by state-owned companies, which are not included in the table.

Table B.4 Allocations from the fiscus to strategic infrastructure projects

R million	2012/13 Audited outcome	2013/14	2014/15 Preliminary outcome	2015/16	2016/17 Forecast	2017/18	2018/19
SIP Category							
SIP 1: Unlocking the northern mineral belt with Waterberg as catalyst	1 051.9	1 042.8	1 053.7	604.1	371.4	397.8	478.9
SIP 2: Durban-Free State-Gauteng logistics and industrial corridor	13.0	11.6	4.9	109.5	50.7	8.7	–
Sip 3: South eastern node and corridor development	6 602.6	7 043.5	8 215.5	8 633.5	9 377.9	11 411.2	12 742.6
SIP 4: Unlocking the economic opportunities in the North West province	265.3	265.3	305.5	632.6	596.9	536.7	329.5
SIP 5: Saldanha-Northern Cape development corridor	228.7	44.5	177.2	269.4	136.0	55.3	35.5
SIP 6: Integrated municipal infrastructure project	16 959.3	17 117.0	18 042.4	20 043.0	19 915.1	20 459.5	21 109.5
SIP 7: Integrated urban space and public transport programme	36 520.1	38 873.0	49 751.5	49 398.3	49 749.1	55 199.1	58 562.3
SIP 10: Electricity transmission and distribution for all	1 937.7	2 251.3	3 018.0	3 779.8	3 692.8	4 066.0	4 196.7
SIP 11: Agri-logistics and rural infrastructure	6 845.1	7 544.8	9 401.5	9 861.2	10 267.5	10 847.9	11 797.1
SIP 12: Revitalisation of public hospitals and other health facilities	6 190.6	5 473.5	5 794.3	6 278.5	6 065.8	6 718.9	7 024.8
SIP 13: National school build programme	6 860.7	8 319.6	10 070.6	11 695.7	12 218.3	13 165.6	13 919.0
SIP 14: Higher education infrastructure	1 799.9	2 150.0	2 700.0	3 301.2	3 396.7	3 537.6	3 708.0
SIP 15: Expanding e-access to communication technology	–	808.2	–	226.7	450.3	563.6	890.5
SIP 16: SKA and Meerkat	218.7	328.1	645.2	687.4	652.8	711.9	729.0
SIP 18. Water and sanitation master plan	905.4	1 062.9	855.9	1 629.9	2 053.2	2 076.8	2 722.5
Total	86 399.1	92 336.0	110 036.4	117 150.9	118 994.4	129 756.6	138 245.9

Source: National Treasury

Public-private partnership projects

South Africa has completed 26 public-private partnership projects (PPP) in health, energy, transport, information and communications technology, tourism, and waste management. PPP projects under way include:

- Building the Statistics South Africa head office
- Building Tshwane House to accommodate all City of Tshwane employees
- Procuring 48 new passenger cars as part of the Gautrain's new rolling stock
- Providing renal dialysis facilities in the Northern Cape.

In recent years, the number of new PPP projects has declined, mainly as a result of delays and cancellation of various health and security projects. It has also been increasingly difficult to raise long-term debt finance for PPP projects at affordable rates. A working group consisting of the National Treasury, the Johannesburg Stock Exchange, the World Bank, the Independent Power Producer Unit at the Department of Energy, the Development Bank of Southern Africa and representatives of the South African investment community has been formed to develop and implement alternative infrastructure funding mechanisms. This is intended to lower projects costs by diversifying funding sources and increasing private-sector participation.

Improving performance

Provincial and municipal governments' capital spending has increased rapidly over the past decade, but has lagged behind budget allocations, which have grown even faster. As infrastructure spending increases, concerns about the quality of projects, appraisal, procurement systems, maintenance and effective asset management gain importance.

The National Treasury, the Department of Public Works and the Presidential Infrastructure Coordinating Commission are implementing reforms to improve spending efficiency through better planning, procurement and implementation of infrastructure projects.

These initiatives include the following:

- *Improving planning and delivery of quality projects:* Government is considering introducing a new capital budgeting framework. It will set out a systematic and consistent methodology for evaluating large projects and provide for new approaches to budget planning and appropriations. It will seek to ensure that funds are made available for well-designed projects that generate high returns for national development and effectively align resource allocation with project implementation.
- *Improving asset management:* In planning and budgeting, priority is being given to maintenance and rehabilitation projects to reduce maintenance backlogs and curtail the demand for new assets. Improved asset management practices will enhance the functioning of assets and reduce overall service-delivery costs. Under the current reforms to conditional grants, departments will allocate at least 20 per cent of the budget to maintenance. Infrastructure grants to local government have been reviewed and will be adjusted to encourage improved asset management over the lifecycle of municipal infrastructure assets.
- *Standardising procurement requirements:* The National Treasury recently published a Standard for Infrastructure Procurement and Delivery Management, which is linked to the Public Finance Management Act (1999) and the Municipal Finance Management Act (2003) through an instruction note and a guideline for establishing a model supply chain policy. This standard responds to the call in the National Development Plan for a procurement system that delivers value for money, while minimising the scope for corruption. The standard differentiates between the different types of procurement and their skills requirements, and puts in place a control framework for the planning, design and execution of infrastructure projects. It also provides a range of contracting strategies and approaches.

Status of major infrastructure projects

Major infrastructure projects under way

Table B.5 summarises major economic and social infrastructure projects where funds have been committed and work is under way. The projects' total estimated cost and status are provided. Most of the projects are publicly funded, while a small proportion, like the Renewable Energy Independent Power Producer Procurement Programme, is funded by the private sector. Where the implementing agent is a public enterprise, these projects are financed from its own balance sheet, backed by government guarantees when necessary. Sources of information include the corporate plans of public enterprises and National Treasury estimates of national expenditure.

Table B.5 Major infrastructure projects under way

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
Energy				
Renewable energy	Independent power producers	194	Implement photovoltaic, concentrated solar power and wind projects	The first five bidding windows have been undertaken with 6 377MW procured to date and 2 045MW in commercial operation by December 2015. The last determination was made in August 2015 to procure another 7 300MW (6 300MW renewable energy and 1 000MW for cogeneration) by 2022
Medupi power station	Eskom	145	Construct 4 800MW coal plant in the Waterberg region	First unit commercial operation achieved in August 2015. Next unit expected online in March 2018
Kusile power station	Eskom	161.4	Construct 4 764MW coal plant in Mpumalanga	First unit of 800MW expected in July 2018, with remaining units to come onstream thereafter until 2022
Ingula pumped-storage scheme	Eskom	29.6	Construct 1 332MW pumped-storage scheme	First unit commercial operation planned for January 2017
Education				
University of Mpumalanga	Department of Higher Education and Training	7.5	Construct university with various campuses across the province and at least one centre in each of the three municipal districts by 2025	Construction of the second phase of the new building at Mbombela campus is under way to enable increase in enrolments in 2017 academic year
Sol Plaatje University (Northern Cape)	Department of Higher Education and Training	5.4	Construct university with campuses in Kimberley, Upington and Kuruman by 2025	Upgrading of existing buildings is complete. Construction is under way on 4 new buildings on the central campus
Technical vocational education and training college campuses	Department of Higher Education and Training	25.4	Construct 12 new technical vocational education and training colleges, refurbish old ones by 2017	Construction nearing completion at three sites: Thabazimbi, Nkandla A and Bambanani. Procurement process for another 3 sites is under way
Tertiary institution infrastructure	Department of Higher Education and Training	35.2	Construct new buildings and procure equipment, refurbish and upgrade facilities	Work in progress
School infrastructure backlogs in-kind allocation	Department of Basic Education	11.7	Replace 510 inappropriate and unsafe school structures, and provide water to 1 120 schools, sanitation to 741 and electricity to 916	Work in progress
Education infrastructure allocation	Department of Basic Education	95.8	Construct, maintain, upgrade and rehabilitate new and existing infrastructure in schools	Work in progress
Health				
Health facility revitalisation grant	Provincial departments	17.1	Accelerate construction, maintenance, upgrading and rehabilitation of new and existing infrastructure in health	Work in progress
Dr. Pixley ka Seme Hospital	Provincial departments	2.7	Replace hospital	Under construction
Kw aZulu-Natal: Ngw elezane Hospital and Lower Umfolozi War Memorial Hospital Complex	Provincial departments	0.9	Construct hospital complex	Work in progress
Eastern Cape: Cecilia Makiwane Hospital	Provincial departments	1.3	Construct main hospital (phase 4)	Under construction
North West: Bophelong Hospital	Provincial departments	1	Construct new hospital	Under construction
Kw aZulu-Natal: King George V	Provincial departments	1.2	Upgrade and add to existing hospital	Under construction
Free State: Boitumelo Hospital	Provincial departments	0.6	Revitalise existing hospital	Under construction
Gauteng: Chris Hani Baragwanath	Provincial departments	0.8	Construct pharmacy, outpatient and x-ray departments	Under construction
Mpumalanga: Rob Ferreira Hospital	Provincial departments	0.9	Upgrade existing hospital	Under construction
Eastern Cape: St Elizabeth's Hospital	Provincial departments	0.7	Upgrade existing facility	Under construction
National health insurance indirect grant (health facility revitalisation component)	National Department of Health	2.7	Accelerate construction, maintenance, upgrading and rehabilitation of new and existing infrastructure in health	Work in progress
Telecommunications				
Square Kilometre Array	National Research Foundation	16	Host the most powerful radio telescope in the world	Construction of MeerKat (the 64-dish prototype phase) taking place (21 dishes expected to be completed by end 2015/16), with some elements operational by 2020. Full operation

Table B.5 Major infrastructure projects under way (continued)

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
Water				
Mokolo River and West Crocodile River water augmentation project (phase 1)	Trans-Caledon Tunnel Authority	2.1	Construct pump station and 43 km pipeline to augment domestic and industrial water supply to new power stations, associated mining activities and growing population	Under construction
OR Tambo, Mthatha and King Sabata Dalindyebo district municipality bulk water supply and sanitation	Municipal project	2.7	Augment existing bulk water scheme	Under construction
Olifants River water resources development project: De Hoop Dam (phase 2A)	Trans-Caledon Tunnel Authority	3.1	Supply water to new mining developments, augment domestic water supplies to urban and rural users in the middle Olifants River catchment area and to various communities on Nebo Plateau and Sekhukhune	Under construction
Olifants River water resources development project (phase 2C)	Trans-Caledon Tunnel Authority	3.4	Construct bulk distribution works from Flag Boshielo to Mokopane, De Hoop to Steelpoort, Steelpoort to Mooihoek, Mooihoek to Olifantspoort and Nebo Plateau to Roossenekal	Under construction. Projected completion in July 2016
Vaal Gamagara scheme	Department of Water and Sanitation	2	Upgrade existing bulk water scheme	Under construction
Mogalakwena bulk water supply	Department of Water and Sanitation	1.6	Upgrade boreholes and construct new bulk water scheme	Under construction
Greytown regional bulk scheme	Department of Water and Sanitation	1	Construct new bulk water scheme and upgrade existing bulk water scheme	Under construction
Umgeni Water Board: Lower Thukela bulk water supply scheme	Umgeni Water Board	1	Construct new bulk water scheme	Under construction
Rehabilitation of 28 water conveyances (bulk transfer scheme)	Department of Water and Sanitation	5	Rehabilitate of canals and pipelines	Under construction
Transport				
Rolling stock for passenger rail	Passenger Rail Agency of South Africa	53	Implement rolling stock fleet renewal programme over 10 years, starting 2012, and delivery starting in 2014/15	First test train delivered in December 2015; testing under way
Locomotives for freight rail	Transnet	58.8	Acquire 1 064 locomotives for general freight rail, 95 electric locomotives and 60 Class 43 diesel locomotives	69 of the 95 electric locomotives were delivered and accepted as at February 2015. In addition 60 class diesel locomotives were delivered and are undergoing acceptance testing
Manganese rail and terminal	Transnet	19.9	Increase manganese exports from 7.0 million tonnes per annum (mtpa) to 14.0mtpa by 2020 thereafter to 16.0mtpa	Under construction
Sishen-Saldanha corridor expansion programme	Department of Transport	9.4	Expand Sishen-Saldanha iron ore line capacity from 60mtpa to 71mtpa and thereafter to 90mtpa	Under construction
Coal export line expansion	Department of Transport	9.1	Upgrade coal line from Mpumalanga to 81.0mtpa thereafter to 97.0mtpa	Under construction
Human settlements				
Cornubia integrated human settlement	Housing Development Agency/municipalities	25.8	Construct 50 000 mixed-income, mixed-density houses by 2026	Under construction

Source: National Treasury

Major projects in preparation

Table B.6 lists major projects in the planning phase. These projects form part of the pipeline of infrastructure projects over the medium term. The table excludes projects at the concept and pre-feasibility stages because it is not yet possible to reliably estimate their costs. While some projects are still undergoing feasibility studies, others are in the design and tender stage. As the scope of the project is clearly defined during this preparatory phase, the estimated project costs are likely to change.

Table B.6 Major infrastructure projects in planning

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
Energy				
Solar park	Central Energy Fund	200	Establish 1GW solar park near Upington region and further 4GW elsewhere in Northern Cape	Feasibility
Eskom solar concentrated solar power	Eskom	12	Construct 100MW of concentrated solar power technology with storage	Tender
Closed cycle gas turbine	Independent power producers	17	Construct 2 652MW of installed capacity of gas turbines	Tender
Photovoltaic	Independent power producers	154	Add another 7 000MW over and above 1 450MW in the current 3 725MW renewable energy independent power producers	Tender
Concentrated solar power	Independent power producers	60	Add another 1 000MW over and above 200MW in the current 3 725MW renewable energy independent power producers	Tender
Wind	Independent power producers	111	Add another 6 550MW over and above 1 850MW in the renewable energy independent power producers, and 800MW committed elsewhere	Tender
Health				
Limpopo: Siloam Hospital	Provincial department	1.2	Replace hospital (main hospital and staff accommodation)	Design
Limpopo: Tshildzini Hospital	Provincial department	1.4	Replace hospital	Feasibility
Western Cape: Valkenberg Hospital	Provincial department	1.2	Rehabilitate hospital	Feasibility
Eastern Cape: Zithulele Hospital	Provincial department	1	Replace hospital	Feasibility
Gauteng: Soshanguve Hospital	Provincial department	1.4	Build new hospital	Feasibility
Telecommunications				
South Africa Connect: phase 1 of digital development pillar	Department of Telecommunications	6.7	Connect schools, clinics and government institutions to broadband	Feasibility
Sentech: digitisation of terrestrial television network	Public corporations and private enterprises	1.5	Use spectrum efficiently, broadcast digital dividend, multiple channel possibilities and new content generation	Design
Transport				
Waterberg rail	Transnet	5.1	Develop Waterberg as coal hub, increasing coal tonnage to 23 million tonnes per annum (mtpa) over seven years	Feasibility
Coal line expansion	Transnet	8.9	Upgrade Mpumalanga-Richards Bay coal line to 97 million tonnes over 10 years	Concept
Swaziland rail link	Transnet	19	Construct new rail link, reconstruct and upgrade existing rail links from Lothair through Swaziland to Sidvokodvo, upgrade adjacent network	Concept
Durban port expansion	Transnet	8.2	Deepen berths at Durban container terminal, expand Durban container terminal pier 1 phase 2, infill Z shape	Design
Iron-ore line (Sishen to Saldanha Bay)	Transnet	16.3	Expand Sishen-Saldanha iron ore railway line to 82.5mtpa	Feasibility
Manganese rail and terminal	Transnet	18.7	Upgrade rail, port and terminal capacity for manganese export	Feasibility
Liquid fuels				
Mthombo	Department of Energy	200	Construct 3 000 kilo barrel per day (kbbld) oil refinery at Coega with supporting infrastructure of R100 billion	Feasibility
Biofuels	Industrial Development Corporation	2	Construct 90 million litres per annum (l/a) plant at Cradock using sugar, beet and sorghum	Design

Table B.6 Major infrastructure projects in planning (continued)

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
Water				
Olifants River water resources development project (phases 2B and 2G)	Departmental agencies	13.1	Construct Flag Boshielo to Mokopane pipeline and second pipeline between Flag Boshielo and Mokopane	Feasibility
Sedibeng bulk regional sewerage scheme remainder	Departmental agencies	2.4	Construct new wastewater treatment works	Design
De Hoop: Greater Sekhukhune district municipality regional bulk water and wastewater	Municipal project	4	Construct new bulk water infrastructure linking the communities with De Hoop Dam	Feasibility
Magalies water to Waterberg	Departmental agencies	800	Construct new bulk water scheme	Feasibility
Lusikisiki regional water supply scheme: Zalu Dam on Xura River	Departmental agencies	5	Develop bulk water and wastewater infrastructure for municipal reticulation infrastructure	Feasibility

Source: National Treasury