



VOTE 34
Science and Technology

**ESTIMATES
OF NATIONAL
EXPENDITURE** **2011**



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The *Estimates of National Expenditure 2011* e-publications are compiled with the latest available information from departmental and other sources. Some of this information is unaudited or subject to revision. More comprehensive coverage of goods and services, donor funding, transfers and subsidies, public entities and lower level institutional information, is provided in this publication where applicable.

The *Estimates of National Expenditure 2011* e-publications are available on www.treasury.gov.za

Foreword

When this publication was introduced in 2001, we stated that “The Estimates of National Expenditure represents a significant step forward in national budget transparency.” Since then, the national budget process has undergone continued reform. The Budget preparation for 2011 saw a shift from budgeting by department to budgeting by function of government, thus enabling a more strategic focus on a smaller number of key outcomes. Using the functional approach, there is better transparency and coordination in budgeting due to participation by stakeholders responsible for delivery across all spheres of government, including the various agencies. Ongoing efforts to reform non-financial performance information have led to a systematic improvement in the veracity of this information. These reforms will lead to greater accountability and control.

Budgets are the link between the outcomes targeted by government and the services that are ultimately delivered. Government’s adoption of the outcomes approach in 2009 started the process of closer cooperation and improved coordination across government departments and agencies towards the attainment of 12 clearly stated outcomes that are of considerable importance to the country’s development. This approach started with the re-organisation of national government departments and was further re-enforced by signed agreements concluded between the president and ministers of national departments.

Budgets proposed for each of the votes in this publication give consideration to the initiatives focused on the 12 outcomes. One of the outcomes warranting a special mention is that of job creation. 2011 has been declared the year of job creation. A key aim of the new growth path is to achieve job creation on a significant scale through economic transformation and inclusive growth.

There is a focus on the reprioritisation of existing budgets, in addition to the allocation of new money made available by the main Budget framework. This publication indicates details per vote of savings amounting to R30.6 billion over the period ahead. This year, specific detail has been included on: the outcomes which institutions contribute towards and the output and other performance measures supporting them; personnel budgets, employee numbers and spending trends; and the purpose and key activities of each sub-programme within a vote. Compared to the abridged version of the Estimates of National Expenditure, the e-publications for each vote contain more comprehensive coverage of goods and services, transfers and subsidies, public entities, lower level expenditure information and information on donor funding.

The independent Open Budget Index assessment of budget transparency began in 2006. It is conducted every two years to measure the availability and comprehensiveness of key budget documents. In 2010, South Africa achieved first place among all the 94 countries surveyed across the world, scoring 92 per cent. South Africa’s score on the index rose from 86 per cent in 2006 (when 59 countries were surveyed), and 87 per cent in 2008 (when 85 countries surveyed).

The detailed expenditure estimates of departments set out in this publication are the result of an arduous executive and administrative process. Executive approval of additional spending allocations and savings takes place under the political guidance of the ministers’ committee on the Budget and follows a wide ranging intergovernmental consultative process led by a committee of senior officials in central government departments.

A special word of thanks is due to all our colleagues from other departments for their contributions. I also wish to express my appreciation to the National Treasury team, which worked tirelessly to produce a document of which we are rightly proud.



Lesetja Kganyago
Director-General: National Treasury

Introduction

South Africa has once again achieved international recognition for meeting budget transparency and accountability standards. The International Budget Partnership ranks South Africa first among 94 countries in the 2010 Open Budget Survey. The quality and usability of budget documents such as the Estimates of National Expenditure have made a significant contribution to this achievement. Moreover, the Money Bills Amendment Procedure and Related Matters Act (2009) has increased Parliament's oversight over the Budget proposal as it sets out the procedure in terms of which the proposal must be considered for possible amendment. The parliamentary procedure involves canvassing the opinion of civil society groups and lends itself to more participatory budgeting. The increased transparency of budgets and the increased scrutiny make it possible for South African public servants to be held more accountable for their management of resources and performance over the period ahead.

The 2011 Estimates of National Expenditure is a comprehensive publication that provides details of the spending plans of all national departments and agencies for the next three financial years (2011/12 to 2013/14), expenditure outcomes for the past three years (2007/08 to 2009/10), and revised estimates for the current year (2010/11). Information is also provided on legislation, policies, outcomes and performance targets over the seven-year period. Any changes in these areas are explained in relation to trends in planned expenditure. The Estimates of National Expenditure e-publications per vote give more extensive coverage of transfers and subsidies, public entities, goods and services, donor funding and lower level institutional information than does the abridged version of the Estimates of National Expenditure. This more detailed information for each vote is available at www.treasury.gov.za.

In keeping with the ongoing budget reform improvements to the way that public finances are managed and reported, changes have also been made in the 2011 Estimates of National Expenditure. Information on the outcomes that departments and government agencies contribute to and the related outputs included in delivery agreements is briefly discussed in the strategic overview section. Departments will also provide more information on the key functions of each subprogramme on a vote, particularly regarding its transfers and subsidies, personnel complement, volume of work carried out and the composition of spending. A new section on personnel information has been introduced under the expenditure trends section, including a table that provides information on posts funded on budget, vacancies and the number of posts in the department by salary level, as well as by programme and unit cost.

Budgeting for outcomes

Over the past decade, strong growth in public spending has not always been matched with a concomitant improvement in service delivery. If government's development and economic objectives stipulated in the new growth path are to be met, it is stated in the new growth path framework that public service delivery must improve significantly. Better public services require a culture of efficiency, effectiveness and stewardship of public resources, obliging government to become more responsive to the needs of citizens.

This objective is supported by various reform initiatives which have been and continue to be undertaken. At the outset, in 2009 the national macro organisation of the state project effected the reorganisation of national government departments to enhance their efficiency and improve on service delivery. Following on from this, the outcomes approach was adopted and 12 outcome targets were agreed upon for government, and signed ministerial performance agreements and interdepartmental and interagency delivery agreements followed. The outcomes approach provides a platform for achieving greater efficiency in the public service as it is aimed at addressing the weaknesses identified in coordination and cooperation across government. The five major budget priorities over the medium term expenditure framework period are expressed in terms of the 12 government outcomes. Budget decisions are informed by an agreed set of outputs and activities to the extent that they are organised around the 12 government outcomes and elaborated upon in delivery agreements.

Government has taken a different approach in reviewing its spending baseline to realign expenditure with the government outcomes and to make existing resources work with greater efficiency. Government's consumption expenditure (including wages as well as goods and services) has to be managed more efficiently to obtain greater value for money. Over recent years, there have been significant increases in overall personnel costs,

although expenditure on frontline personnel has not increased markedly. Government is targeting the reduction of large administrative budgets in favour of increasing frontline personnel and infrastructure investment, to channel more resources towards the actual delivery of key services.

In developing the 2011 medium term expenditure framework there was a shift towards budgeting by function rather than by department. The functional approach focuses on the purpose (the function) for which funds are to be used, and groups together national, provincial and local government, and government agencies, in terms of the function of government they perform. In this way a consolidated functional expenditure amount can be calculated, and monies transferred from one sphere of government to another can be more easily offset against each other. In support of the reprioritisation of funds in line with outcomes, more effective comparison of allocations with service delivery trends, and assessment of spending proposals, including the trade-offs between different options, are carried out in a given function. This approach provides more transparency and better coordination in the budgeting process. The table below shows the functional classification and, for each function, the national department(s) involved and the outcomes each function supports.

Functional classification of national departments and related outcomes

Functional Classification	Department(s)	Outcome(s)
Economic affairs	Government Communication and Information System [9], Public Enterprises [11], Agriculture, Forestry and Fisheries [26], Economic Development [28], Energy [29], Environmental Affairs [30], Mineral Resources [32], Rural Development and Land Reform [33], Science and Technology [34], Tourism [35], Trade and Industry [36], Transport [37]	<p>Outcome 4: Decent employment through inclusive economic growth</p> <p>Outcome 5: A skilled and capable workforce to support an inclusive growth path</p> <p>Outcome 6: An efficient, competitive and responsive economic infrastructure network</p> <p>Outcome 7: Vibrant, equitable and sustainable rural communities with food security for all</p> <p>Outcome 10: Environmental assets and natural resources that are well protected and continually enhanced</p>
Housing and community amenities	Human Settlements [31], Water Affairs [38]	<p>Outcome 4: Decent employment through inclusive economic growth</p> <p>Outcome 7: Vibrant, equitable and sustainable rural communities with food security for all</p> <p>Outcome 8: Sustainable human settlements and improved quality of household life</p> <p>Outcome 9: A responsive, accountable, effective and efficient local government system</p>
Education	Basic Education [15], Higher Education and Training [17]	<p>Outcome 1: Improved quality of basic education</p> <p>Outcome 5: A skilled and capable workforce to support an inclusive growth path</p>
Health	Health [16]	Outcome 2: A long and healthy life for all South Africans
Social protection	Women, Children and People with Disabilities [8], Labour [18], Social Development [19]	
Recreation, culture and sport	Arts and Culture [14], Sport and Recreation South Africa [20]	Outcome 12: An efficient, effective and development orientated public service and an empowered, fair and inclusive citizenship
Public order and safety	Correctional Services [21], Independent Complaints Directorate [23], Justice and Constitutional Development [24], Police [25]	<p>Outcome 3: All people in South Africa are and feel safe</p> <p>Outcome 11: Create a better South Africa and contribute to a better and safer Africa and World</p> <p>Outcome 12: An efficient, effective and development orientated public service and an empowered, fair and inclusive citizenship</p>
Defence	Defence and Military Veterans [22]	<p>Outcome 3: All people in South Africa are and feel safe</p> <p>Outcome 11: Create a better South Africa and contribute to a better and safer Africa and World</p>
General public service	Presidency [1], Parliament [2], Cooperative Governance and Traditional Affairs [3], Home Affairs [4], International Relations and Cooperation [5], Performance Monitoring and Evaluation [6], Public Works [7], National Treasury [10], Public Service and Administration [12], Statistics South Africa [13], Communications [27]	<p>Outcome 9: A responsive, accountable, effective and efficient local government system</p> <p>Outcome 11: Create a better South Africa and contribute to a better and safer Africa and World</p> <p>Outcome 12: An efficient, effective and development orientated public service and an empowered, fair and inclusive citizenship</p>

The functional groups that have been used are derived from the Classification of the Functions of Government published by the United Nations, but are modified for the South African budgeting context. All decisions on savings and spending in relation to each function were reached as part of a broad consultative process between different stakeholders in the sector, including the medium term expenditure committee of senior officials in central government departments which leads this process, the provincial technical and executive forums, the ministers' committee on the budget, Cabinet and Parliament. These decisions comprise the Budget proposal tabled on Budget day for Parliament's consideration.

Savings and reprioritisation of budgets

While the global economy has been showing signs of recovery, international opinion on the economy is still cautious, on the grounds of perceived uncertainties. In addition to the macroeconomic situation, in line with achieving government's outcomes targets the composition of government expenditure needs to change to ensure that there is value for money. To sustain public expenditure in South African in the long run, a moderation in spending growth over the period ahead is necessary. This necessitates a rigorous review of budget baseline expenditure and an assessment of the:

- capacity of departments and public entities to spend and manage resources appropriately
- strength of the link between expenditure and the outcomes approach as well as with government departmental mandates
- expenditure trade-offs between the different budget options proposed
- non-performing/ underperforming projects/ programmes and entities
- sourcing of funds through savings and reprioritisation initiatives
- alternative revenue raising capacity, cost recovery efforts and donor funding availability.

This year's budget preparation focused extensively on finding savings within the departmental and agency budget baselines linked to a given functional grouping. Departments were able to decrease spending on non-core goods and services, restrict expenditure on low priority programmes, reschedule expenditure, effect savings on foreign exchange rate projections, reduce transfers to certain public entities, improve financial management and reduce expenditure on administration. Savings identified per function over the medium term in this exercise are presented in the table below.

Savings realised per function over the medium term

R thousand	2011/12	2012/13	2013/14	Total
Economic affairs	1 387 674	1 645 222	1 232 355	4 265 251
Housing and community amenities	1 970 233	2 618 510	2 314 474	6 903 217
Education	24 157	24 418	25 590	74 165
Health	44 000	44 000	544 000	632 000
Social protection	1 273 468	1 021 306	519 124	2 813 898
Recreation, culture and sport	28 222	25 571	56 858	110 652
Public order and safety	293 940	1 768 802	1 860 911	3 923 653
Defence	404 824	458 919	434 034	1 297 777
General public service	933 163	1 187 437	875 382	2 995 982
Total	6 359 682	8 794 185	7 862 728	23 016 595

Savings realised over the three years on national votes amounted to R23 billion, of which R6.4 billion is in 2011/12, R8.8 billion in 2012/13 and R7.9 billion in 2013/14. Of these savings, R21.6 billion is reprioritised within functional budget baselines towards meeting existing outcomes commitments. The remainder of R1.4 billion is added to the policy reserve for reallocation. The major savings and reprioritisation areas identified over the medium term are presented in the table below.

Major areas of savings and reprioritisation

Function	Savings identified	Savings redirected
Economic affairs	Non-core goods and services (R2 billion) Underperforming programmes (R1.3 billion)	Road maintenance (R950 million) Expansion of public transport infrastructure and system grant (R580 million) Rural development and land reform (R1.3 billion)
Housing and community amenities	Underperforming programmes (R600 million) Non-core goods and services (R478 million) Rescheduling of expenditure (R759 million) Expanded public works programme: Infrastructure (R688 million)	Completion of De Hoop Dam and a portion of bulk distribution system (R1 billion) Regional bulk infrastructure (R600 million) Expanded public works programme Social sector (R825 million)
Social protection	Non-essential items such as catering and consultation fees (R927 million)	Old age grants - means threshold increased (R280 million) Efficient and effective grant payment model (R535 million)
Public order and safety	Non-essential items (R555 million)	Anti-retroviral drugs for prisoners and additional police personnel (R465 million)
Defence	Non-core goods and services (R1.3 billion)	New remuneration dispensation (R1.3 billion)

In addition to the initial exercise, a further reduction of 0.3 per cent on the budgets of provincial and national departments was also effected; this yielded an additional R6 billion in savings.

Policy reserve

In line with the change to functional budgeting, the additional allocation made available through the national Budget framework was divided per function and a policy reserve was also retained. In the 2011 Budget process the policy reserve was created to fund key government priorities over the next three years. Including the initial identified savings of R1.4 billion that was not reprioritised and the R6 billion identified later, a policy reserve amounting to R33 billion was created. The table below shows how the policy reserve was allocated.

Allocation of the policy reserve

R thousand	2011/12	2012/13	2013/14	Total
For various functions				
Job creation and youth employment	2 000 000	3 000 000	4 000 000	9 000 000
Economic affairs				
Economic regulatory capacity	50 000	50 000	50 000	150 000
Green economy: allocated	200 000	-	-	200 000
: unallocated	-	300 000	500 000	800 000
Broadband information and communication technology: universal access	100 000	150 000	200 000	450 000
Rural development and farmer support	150 000	350 000	600 000	1 100 000
Public transport	200 000	400 000	600 000	1 200 000
Agro-Processing Competitiveness Fund	34 000	108 000	108 000	250 000
Khula Direct	55 000	-	-	55 000
Housing and community amenities				
Human settlement upgrading	200 000	400 000	600 000	1 200 000
Water infrastructure and quality	50 000	150 000	200 000	400 000
Education				
School infrastructure	700 000	1 500 000	2 300 000	4 500 000
Further education and training colleges expansion and National Students Financial Aid Scheme	1 949 990	2 714 188	3 075 595	7 739 773
Health				
Public health services	600 000	1 400 000	2 000 000	4 000 000
Public order and safety				
Police capacity and border control	100 000	400 000	900 000	1 400 000
Defence				
Border control	100 000	200 000	300 000	600 000
Total	6 488 990	11 122 188	15 433 595	33 044 773

The largest allocation from the policy reserve amounts to R9 billion and targets job creation and youth employment, which is allocated on the National Treasury vote. It will be allocated to line departments that provide proposals for projects that meet the objectives of the fund. Of the R1 billion allocation for the green economy, R800 million is currently unallocated to any specific vote but will be announced in the 2011 Budget

as available for appropriation over the medium term. Other major allocations in the policy reserve include R7.7 billion for further education and training colleges and the National Student Financial Aid Scheme, R4.5 billion for school infrastructure and R4 billion for public health services.

Additional allocations

Including policy reserve funding, a total addition of R94.1 billion is allocated to government institutions in terms of the revised national Budget framework to fund government's key priorities over the next three years. Of the R94.1 billion, national departments receive R48.8 billion (51.9 per cent): R9.9 billion in 2011/12, R14.7 billion in 2012/13 and R24.2 billion in 2012/13. Provinces and municipalities receive the remainder: R40.2 billion (42.7 per cent) to provinces and R5.1 billion (5.4 per cent) to municipalities over the medium term. Conditional grants to provinces and municipalities are reflected on both national budgets and the budgets of provinces or municipalities, and are included in the discussion below.

A summary of additional allocations in line with government's policy priorities is provided below by national vote. It is important to note that the discussion on increases in the budget excludes all direct charges against the National Revenue Fund and the amounts of the local and provincial equitable share. Details are only provided for national votes receiving relatively large additional allocations for implementing new programmes or extending existing programmes. The amounts per vote in the discussion below correspond with those in table 2. They represent the gross additional allocations, before the baseline savings and reprioritisation have been effected. The total amounts may therefore be bigger than the overall net change in the budget of a specific vote. In the discussion below, these gross amounts will be referred to as the allocations received for the coming three year medium term expenditure framework period. In certain instances, the savings on a particular vote exceed the gross total allocation to that vote and the overall net change in the budget of that vote is actually negative.

Economic affairs

Taking into account the policy and practical budgeting considerations within this government function in the South African context, this function has been disaggregated broadly into four areas that are each discussed in turn.

Transport

For the **Department of Transport** for the medium term expenditure framework period, R2.7 billion is provided for the public transport infrastructure and systems conditional grant to municipalities to develop integrated public transport networks. The South African National Roads Agency is allocated R2.7 billion for the maintenance of roads and R1.4 billion is allocated to the Passenger Rail Agency South Africa to upgrade and replace Metrorail's signalling infrastructure.

Energy and environmental protection

Over the medium term, the **Department of Environmental Affairs** receives an additional R191 million to implement measures that will address wildlife trafficking, air quality, waste and coastline management, and oil spill disasters. For climate change mitigation and the establishment of a green fund for South Africa, R1 billion is provided. This will be announced in the 2011 Budget as an amount largely not appropriated to any specific vote, except for the R200 million in funding that is allocated to host the 2011 United Nations Conference on Climate Change in 2011/12.

Industrial development

An allocation to the **Economic Development Department** of R250 million is for the Competition Commission to group its work on anti-competitive practices in four priority sectors and to form a specialised cartel investigation unit.

Agriculture, forestry, fisheries and land affairs

An amount of R1.1 billion is the gross allocation to the **Department of Rural Development and Land Reform** for the comprehensive rural development programme.

The **Department of Agriculture, Forestry and Fisheries** receives R500 million for the comprehensive agriculture support programme grant and the land care programme grant.

Also, a gross allocation of R450 million is made available to the **Department of Communications** for broadband services information and communication technologies infrastructure, and universal access in underdeveloped or rural areas in the country.

Housing and community amenities

This function's budget is dominated by transfer payments. Over the MTEF period, an additional R2.1 billion is allocated to the **Department of Human Settlements** for informal settlements upgrading through the new urban settlements development grant. The Social Housing Regulatory Authority receives R972 million to increase the delivery of affordable rental housing.

The **Department of Water Affairs** is allocated a gross addition of R3.7 billion, of which R1 billion is for the completion of the De Hoop Dam and the provision of some bulk infrastructure pipelines, R952 million is for regional bulk infrastructure, R520 million for the completion of the Nandoni pipeline and R450 million for emergency drought relief in the Nelson Mandela Bay municipality.

Education

This function receives the biggest gross total allocation of R33.9 billion. The **Department of Basic Education** receives R8.2 billion, most of which is for transfers to provinces. The funds are mostly for school buildings for the eradication of inappropriate infrastructure structures and to ensure that more schools have water, sanitation and electricity. For bursaries for mathematics and science teachers, R596 million is allocated.

The **Department of Higher Education and Training** receives R3.6 billion for the National Student Financial Aid Scheme for funding higher education students, R300 million for establishing universities in Mpumalanga and Northern Cape, R3.9 billion for a state bursary scheme that will increase poor learners' access to further education and training colleges, and R1.4 billion to further education and training colleges to increase the number of students they enrol.

Health

The gross total allocation to the health function over the medium term is R18.5 billion. Most of this funding is allocated by means of the provincial equitable share. An amount of R1.4 billion is allocated to the national **Department of Health** towards increasing HIV counselling and circumcisions. To improve health facilities and medical equipment in preparation for national health insurance, the department receives a further R1.6 billion.

Social protection

The **Department of Social Development** is allocated R870 million for the South African Social Security Agency to implement a new grants application process that will reduce beneficiary waiting times and fraud.

Recreation, culture and sport

The **Department of Sport and Recreation South Africa** receives a gross allocation of R136 million to provide increased support to national sporting federations to enhance sports development and transformation, particularly in the participation of previously disadvantaged communities.

For the development of the local film industry R135 million is allocated to the National Film and Video Foundation under the **Department of Arts and Culture's** vote and R37 million is also allocated to capacitate the National Library of South Africa.

Public order and safety

Additional funding of R2.1 billion is made available to this function for the **Department of Police's** vote for the recruitment of additional policing personnel in the areas of visible policing, detective services and crime intelligence services. The number of police personnel will increase to 202 260 in 2013/14.

The **Department of Justice and Constitutional Development** receives additional funding of R490 million for the construction of two new high courts in Nelspruit and Polokwane, which will bring the total number of high courts to 16.

The **Department of Correctional Services** is allocated R460 million over the medium term for the upgrading of information technology that will enhance the functioning of the criminal justice system.

Defence

In this function, an amount of R600 million is allocated to the **Department of Defence** to deploy soldiers to the country's borders and upgrade and improve border facilities and equipment.

General public service

An amount of R500 million is added to the budget of **Statistics South Africa** for the 2011 Census, towards the costs of 120 000 field workers and to ensure greater coverage of the population than in the 2001 Census.

The **Department of Public Works** receives an additional R2.2 billion for municipal and accommodation charges payable.

To deal with the post recovery and reconstruction effects of the flooding disaster, R600 million has been allocated under the **National Treasury** vote. The National Treasury also receives R1.5 billion to fund increases in amounts payable to the Political Office Bearers' Pension Fund, as well as increases in costs related to post-retirement benefits and injury-on-duty benefits.

For the new conditional grants to deal with immediate disaster effects, R1.8 billion is allocated over the medium term under the **Cooperative Governance and Traditional Affairs**' vote. Of this, R675 million is for the provinces and R1.2 billion is allocated to municipalities.

Overview of expenditure

The main Budget, including state debt costs, provides for total expenditure of R888.9 billion in 2011/12, R968.1 billion in 2012/13 and R1.1 trillion in 2013/14, reflecting a nominal growth rate of approximately 9.1 per cent on average over the medium term expenditure framework period. Non-interest expenditure comprises on average 89.3 per cent of total main Budget expenditure, growing at an average annual rate of 7.6 per cent over the period. These budgeted estimates provide for a contingency reserve set aside to deal with unanticipated events, amounting to R4.1 billion in 2011/12, R11.4 billion in 2012/13 and R23.4 billion in 2013/14.

The allocations in the main Budget are detailed in the pages of this publication, with a high level overview provided in the summary tables below.

Summary tables

Table 1: Main budget framework 2007/08 to 2013/14

Table 2: Additional allocation to national votes 2011/12 to 2013/14

Table 3: Expenditure by national vote 2007/08 to 2013/14

Table 4: Expenditure by economic classification 2007/08 to 2013/14

Table 5: Amounts to be appropriated from the National Revenue Fund for 2011/12

Table 6a: Conditional grants to provinces 2007/08 to 2013/14

Table 6b: Conditional grants to municipalities 2007/08 to 2013/14

Table 7: Training expenditure per vote 2007/08 to 2013/14

Table 8: Infrastructure expenditure per vote 2007/08 to 2013/14

Table 9: Personnel expenditure per vote 2007/08 to 2013/14

Table 10: Departmental receipts per vote 2007/08 to 2013/14

Table 1 Main budget framework 2007/08 to 2013/14

R million	Audited outcome			Revised estimate	Medium-term estimates		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Revenue (National Revenue Fund)							
Tax revenue (gross)	572 814.6	625 100.2	598 705.4	672 200.0	741 620.0	827 310.0	927 960.0
Departmental and other receipts, and repayments	12 693.0	12 616.0	8 889.0	12 254.0	10 000.9	11 540.0	12 351.1
Less: Southern Africa Customs Union payments	-24 712.6	-28 920.6	-27 915.4	-14 991.3	-21 763.2	-32 431.8	-35 997.4
Other adjustment ¹	-	-	-	-2 900.0	-	-	-
Total revenue	560 795.1	608 795.5	579 679.0	666 562.7	729 857.6	806 418.2	904 313.7
<i>Percentage of GDP</i>	<i>27.0%</i>	<i>26.3%</i>	<i>23.7%</i>	<i>25.0%</i>	<i>25.0%</i>	<i>25.2%</i>	<i>25.6%</i>
Expenditure							
State debt cost	52 877.1	54 393.7	57 129.2	66 570.4	76 578.7	90 807.7	104 036.2
<i>Percentage of GDP</i>	<i>2.5%</i>	<i>2.4%</i>	<i>2.3%</i>	<i>2.5%</i>	<i>2.6%</i>	<i>2.8%</i>	<i>2.9%</i>
Current payments ²	88 512.0	103 376.4	117 130.0	135 313.3	147 760.3	156 210.6	166 884.0
Transfers and subsidies	391 929.9	458 702.2	532 182.3	578 332.9	648 496.9	695 554.1	740 738.6
Payments for capital assets ²	7 018.5	8 508.4	9 202.2	8 817.0	11 206.9	13 823.7	17 464.5
Payments for financial assets	1 105.9	10 972.6	31 553.0	20 889.7	750.1	0.1	0.1
Unallocated	-	-	-	-	40.0	330.0	530.0
Contingency reserve	-	-	-	-	4 090.4	11 405.4	23 375.2
Total expenditure	541 443.4	635 953.3	747 196.8	809 923.3	888 923.3	968 131.7	1 053 028.6
<i>Percentage of GDP</i>	<i>26.0%</i>	<i>27.5%</i>	<i>30.6%</i>	<i>30.4%</i>	<i>30.5%</i>	<i>30.2%</i>	<i>29.8%</i>
Budget deficit³	19 351.6	-27 157.8	-167 517.7	-143 360.6	-159 065.7	-161 713.5	-148 714.9
<i>Percentage of GDP</i>	<i>0.9%</i>	<i>-1.2%</i>	<i>-6.9%</i>	<i>-5.4%</i>	<i>-5.5%</i>	<i>-5.1%</i>	<i>-4.2%</i>
GDP	2 078 822.0	2 312 965.0	2 442 593.0	2 666 893.9	2 914 861.7	3 201 299.3	3 536 001.5

1. Payment to SACU partners in respect of a previous error in calculation of the 1969 agreement.

2. Excludes conditional grants to provinces and local government, which are included in transfers and subsidies.

3. A positive number reflects a surplus and a negative number a deficit.

Table 2 Additional allocation to national votes 2011/12 to 2013/14¹

R million	Medium-term expenditure estimates			Total
	2011/12	2012/13	2013/14	
Central Government Administration	1 948.2	2 277.4	2 923.5	7 149.1
1 The Presidency	90.5	131.3	126.4	348.3
2 Parliament	30.4	31.3	32.4	94.1
3 Cooperative Governance and Traditional Affairs	964.1	873.0	1 250.8	3 087.9
4 Home Affairs	176.9	444.8	600.2	1 221.9
5 International Relations and Cooperation	145.2	162.2	170.1	477.4
6 Performance Monitoring and Evaluation	37.4	97.5	114.5	249.3
7 Public Works	493.7	522.3	609.1	1 625.1
8 Women, Children and People with Disabilities	10.0	15.0	20.0	45.0
Financial and Administrative Services	4 067.9	4 190.0	5 261.1	13 519.0
9 Government Communication and Information System	10.1	10.6	9.9	30.6
10 National Treasury	3 442.3	4 048.0	5 097.8	12 588.1
11 Public Enterprises	44.8	4.6	4.6	53.9
12 Public Service and Administration	34.9	44.2	55.0	134.0
13 Statistics South Africa	535.8	82.7	93.8	712.3
Social Services	4 043.4	7 691.7	14 993.2	26 728.2
14 Arts and Culture	66.9	83.1	105.7	255.8
15 Basic Education	826.4	2 574.4	5 649.7	9 050.4
16 Health	442.0	692.0	2 236.0	3 370.0
17 Higher Education and Training	2 215.3	3 560.3	4 403.6	10 179.2
18 Labour	131.7	170.3	187.3	489.3
19 Social Development	312.1	543.3	2 322.5	3 177.9
20 Sport and Recreation South Africa	49.0	68.3	88.4	205.7
Justice, Crime Prevention and Security	3 740.6	5 760.1	7 583.9	17 084.7
21 Correctional Services	579.9	1 046.7	1 147.8	2 774.3
22 Defence and Military Veterans	1 180.2	1 552.8	1 863.6	4 596.6
23 Independent Complaints Directorate	7.9	9.1	10.1	27.1
24 Justice and Constitutional Development	477.0	1 098.6	1 196.9	2 772.4
25 Police	1 495.7	2 052.9	3 365.5	6 914.2
Economic Services and Infrastructure	6 550.4	8 755.2	10 874.5	26 180.1
26 Agriculture, Forestry and Fisheries	194.1	405.7	512.4	1 112.2
27 Communications	105.7	155.9	206.1	467.7
28 Economic Development	101.6	156.0	166.1	423.7
29 Energy	307.9	29.2	32.6	369.7
30 Environmental Affairs	297.9	146.0	186.4	630.3
31 Human Settlements	657.5	1 215.8	1 757.2	3 630.6
32 Mineral Resources	43.2	53.6	34.1	130.9
33 Rural Development and Land Reform	610.4	838.5	1 113.9	2 562.8
34 Science and Technology	14.6	139.9	404.1	558.6
35 Tourism	52.5	42.4	44.9	139.8
36 Trade and Industry	527.6	621.7	646.3	1 795.6
37 Transport	2 180.8	3 689.9	4 786.2	10 656.9
38 Water Affairs	1 456.6	1 260.4	984.2	3 701.2
Total	20 350.6	28 674.3	41 636.1	90 661.1

1. Excludes additional allocations on provincial equitable share and other direct charges against the National Revenue Fund.

Table 3 Expenditure by national vote 2007/08 to 2013/14

R million	Audited outcome			Adjusted appropriation
	2007/08	2008/09	2009/10	2010/11
Central Government Administration				
1 The Presidency	649.4	308.8	659.1	766.9
2 Parliament	849.8	1 071.5	1 009.0	1 201.6
3 Cooperative Governance and Traditional Affairs	28 359.9	33 386.0	33 661.6	41 748.5
4 Home Affairs	3 241.7	4 666.6	5 195.4	5 834.4
5 International Relations and Cooperation	4 069.7	5 472.3	5 417.4	4 715.8
6 Performance Monitoring and Evaluation	2.0	3.6	10.4	40.5
7 Public Works	3 402.3	4 197.0	5 533.6	7 364.8
8 Women, Children and People with Disabilities	52.5	61.9	77.5	106.2
Financial and Administrative Services				
9 Government Communication and Information System	380.9	427.5	495.4	550.2
10 National Treasury	12 569.3	23 762.8	53 240.6	38 704.9
11 Public Enterprises	4 604.0	3 265.1	3 983.3	555.5
12 Public Service and Administration	609.6	630.6	670.8	658.7
13 Statistics South Africa	1 054.3	1 323.1	1 555.8	2 101.4
Social Services				
14 Arts and Culture	1 585.8	2 114.5	2 224.9	2 441.2
15 Basic Education	4 799.5	6 384.0	7 854.3	10 924.3
16 Health	13 578.6	16 424.5	19 168.6	23 132.5
17 Higher Education and Training	15 999.1	18 767.8	20 684.4	23 776.2
18 Labour	1 431.5	1 507.2	1 698.7	1 835.8
19 Social Development	67 191.4	76 096.7	85 318.2	95 941.1
20 Sport and Recreation South Africa	5 048.0	4 871.4	2 866.4	1 255.5
Justice, Crime Prevention and Security				
21 Correctional Services	11 122.4	12 822.6	13 687.3	15 427.5
22 Defence and Military Veterans	25 180.1	27 801.3	31 324.2	30 442.6
23 Independent Complaints Directorate	80.9	99.3	106.2	131.4
24 Justice and Constitutional Development	7 194.0	8 244.4	9 653.5	10 787.3
25 Police	36 525.9	41 635.2	47 662.5	53 529.7
Economic Services and Infrastructure				
26 Agriculture, Forestry and Fisheries	3 957.2	3 564.9	3 961.8	4 003.9
27 Communications	1 911.8	2 328.6	2 301.9	2 138.0
28 Economic Development	245.1	220.4	314.6	449.8
29 Energy	2 229.8	2 961.7	3 690.9	5 648.7
30 Environmental Affairs	1 564.5	1 789.9	2 124.3	2 438.5
31 Human Settlements	10 503.0	13 269.5	16 407.4	19 305.9
32 Mineral Resources	717.5	768.3	853.8	995.8
33 Rural Development and Land Reform	5 896.6	6 669.8	5 863.8	7 293.4
34 Science and Technology	3 127.3	3 703.5	4 183.9	4 128.0
35 Tourism	1 056.0	1 202.2	1 145.6	1 183.8
36 Trade and Industry	5 050.2	4 836.7	5 923.3	6 194.2
37 Transport	19 155.9	28 161.7	28 664.0	30 380.8
38 Water Affairs	4 802.9	5 797.8	7 188.6	8 203.2
Total appropriation by vote	309 800.8	370 620.6	436 383.5	466 338.6
Plus:				
Direct charges against the National Revenue Fund				
President and Deputy President salary (The Presidency)	2.3	4.0	3.8	4.6
Members remuneration (Parliament)	240.7	304.2	398.8	392.7
State debt costs (National Treasury)	52 877.1	54 393.7	57 129.2	67 606.9
Provincial equitable share (National Treasury)	171 053.7	201 795.6	236 890.8	265 139.4
General fuel levy sharing with metros (National Treasury)	-	-	6 800.1	7 542.4
Skills levy and Setas (Higher Education and Training)	6 284.3	7 234.1	7 815.6	8 424.2
Judges and magistrates salaries (Justice and Constitutional Development)	1 184.5	1 601.1	1 774.9	1 929.9
Total direct charges against the National Revenue Fund	231 642.6	265 332.8	310 813.2	351 040.0
Unallocated	-	-	-	-
Contingency reserve	-	-	-	-
Projected underspending	-	-	-	-1 700.0
Total	541 443.4	635 953.3	747 196.8	815 678.6

Table 3 Expenditure by national vote 2007/08 to 2013/14

Revised estimate	Medium-term expenditure estimates			R million
	2010/11	2011/12	2012/13	
				Central Government Administration
766.9	815.0	887.5	924.2	The Presidency
1 201.6	1 265.3	1 315.9	1 387.6	Parliament
41 748.5	47 933.6	53 842.8	57 120.8	Cooperative Governance and Traditional Affairs
5 834.4	5 464.1	5 249.7	5 864.3	Home Affairs
4 715.8	4 796.8	5 154.9	5 569.3	International Relations and Cooperation
40.5	75.8	141.0	160.4	Performance Monitoring and Evaluation
7 138.7	7 819.3	8 061.2	8 900.1	Public Works
106.2	117.9	129.5	140.8	Women, Children and People with Disabilities
				Financial and Administrative Services
550.2	496.4	524.4	552.0	Government Communication and Information System
38 375.4	22 598.2	23 469.1	25 578.9	National Treasury
555.5	230.2	199.7	210.4	Public Enterprises
656.7	690.1	726.2	774.5	Public Service and Administration
1 741.7	3 240.9	1 698.3	1 717.7	Statistics South Africa
				Social Services
2 339.7	2 468.6	2 625.1	2 784.7	Arts and Culture
9 093.0	13 868.1	16 557.9	20 409.6	Basic Education
22 218.7	25 731.6	27 610.8	30 136.7	Health
23 757.2	28 228.6	31 318.5	33 688.2	Higher Education and Training
1 793.2	1 981.5	2 098.5	2 221.7	Labour
94 841.0	104 732.7	113 524.0	122 075.5	Social Development
1 249.6	802.7	852.3	915.5	Sport and Recreation South Africa
				Justice, Crime Prevention and Security
15 232.5	16 559.2	17 805.0	18 827.8	Correctional Services
30 442.6	34 605.0	37 371.2	39 702.2	Defence and Military Veterans
131.4	151.6	161.0	170.4	Independent Complaints Directorate
10 742.3	11 413.5	12 674.3	13 409.3	Justice and Constitutional Development
53 529.7	58 061.5	62 077.6	66 696.7	Police
				Economic Services and Infrastructure
4 003.9	4 719.7	5 312.0	5 503.2	Agriculture, Forestry and Fisheries
2 138.0	1 889.1	1 721.7	1 851.7	Communications
384.5	594.5	674.7	713.3	Economic Development
5 648.7	6 089.9	5 575.3	4 304.8	Energy
2 359.8	2 846.1	2 399.3	2 643.0	Environmental Affairs
19 305.9	22 578.5	24 875.1	26 674.7	Human Settlements
995.8	1 036.2	1 107.5	1 178.7	Mineral Resources
7 293.4	8 124.2	8 674.1	9 381.1	Rural Development and Land Reform
4 128.0	4 404.6	4 887.4	5 510.1	Science and Technology
1 183.8	1 242.9	1 273.9	1 345.3	Tourism
6 075.5	6 786.9	7 366.9	7 572.4	Trade and Industry
29 989.4	35 084.0	38 204.4	41 198.9	Transport
7 609.7	9 936.2	10 231.5	10 883.5	Water Affairs
459 919.7	499 480.9	538 380.2	578 700.1	Total appropriation by vote
				Plus:
				Direct charges against the National Revenue Fund
4.6	4.8	5.1	5.3	President and Deputy President salary (The Presidency)
392.7	409.6	430.1	453.8	Members remuneration (Parliament)
66 570.4	76 578.7	90 807.7	104 036.2	State debt costs (National Treasury)
265 139.4	288 492.8	305 725.4	323 604.4	Provincial equitable share (National Treasury)
7 542.4	8 573.1	9 039.7	9 613.4	General fuel levy sharing with metros (National Treasury)
8 424.2	9 148.7	9 606.1	10 134.5	Skills levy and Setas (Higher Education and Training)
1 929.9	2 104.2	2 401.9	2 575.7	Judges and magistrates salaries (Justice and Constitutional Development)
350 003.5	385 312.0	418 016.1	450 423.3	Total direct charges against the National Revenue Fund
-	40.0	330.0	530.0	Unallocated
-	4 090.4	11 405.4	23 375.2	Contingency reserve
-	-	-	-	Projected underspending
809 923.3	888 923.3	968 131.7	1 053 028.6	Total

Table 4 Expenditure by economic classification 2007/08 to 2013/14

R million	Audited outcome			Adjusted appropriation
	2007/08	2008/09	2009/10	2010/11
Current payments				
Compensation of employees	56 221.9	64 819.2	75 276.3	88 740.8
Salaries and wages	46 758.3	53 869.3	62 806.6	74 671.9
Social contributions	9 463.6	10 949.9	12 469.7	14 068.9
Goods and services	32 272.1	38 522.2	41 695.1	47 989.9
Interest and rent on land	52 895.1	54 428.7	57 287.8	67 615.5
Interest (Incl. interest on finance leases)	52 893.9	54 428.5	57 280.1	67 614.7
Rent on land	1.2	0.2	7.7	0.8
Total current payments	141 389.1	157 770.1	174 259.2	204 346.3
Transfers and subsidies to:				
Provinces and municipalities	243 233.6	289 395.9	344 774.7	387 557.9
Provinces	204 668.3	243 851.9	293 163.8	326 000.2
Provincial revenue funds	204 668.3	243 851.9	293 163.8	326 000.2
Municipalities	38 565.4	45 544.0	51 610.8	61 557.8
Municipal bank accounts	38 565.4	45 544.0	51 610.8	61 557.8
Departmental agencies and accounts	44 609.0	53 708.8	57 458.8	56 035.9
Social security funds	8.5	2 508.7	9.7	11.6
Departmental agencies (non-business entities)	44 600.5	51 200.1	57 449.1	56 024.3
Universities and technikons	12 004.1	13 897.7	15 443.5	17 576.1
Foreign governments and international organisations	935.6	1 010.6	1 366.4	1 357.1
Public corporations and private enterprises	19 485.7	20 188.1	21 704.6	20 492.5
Public corporations	14 887.2	14 723.0	19 325.2	18 180.6
Subsidies on products or production	6 293.0	8 060.3	8 477.2	9 836.7
Other transfers to public corporations	8 594.1	6 662.6	10 848.0	8 343.9
Private enterprises	4 598.5	5 465.1	2 379.4	2 311.9
Subsidies on products or production	4 111.4	5 193.5	2 009.5	1 848.5
Other transfers to private enterprises	487.1	271.7	369.9	463.4
Non-profit institutions	1 006.7	1 222.2	1 220.3	1 470.9
Households	70 655.2	79 279.0	90 214.0	98 316.7
Social benefits	65 169.0	73 588.0	84 842.8	92 538.4
Other transfers to households	5 486.3	5 690.9	5 371.2	5 778.3
Total transfers and subsidies	391 929.9	458 702.2	532 182.3	582 807.0
Payments for capital assets				
Buildings and other fixed structures	3 631.3	5 331.6	5 712.2	5 975.7
Buildings	3 356.9	4 860.4	4 598.8	4 757.1
Other fixed structures	274.4	471.2	1 113.4	1 218.5
Machinery and equipment	3 161.5	2 926.7	3 127.6	3 298.6
Transport equipment	1 538.2	1 510.2	1 524.2	1 769.1
Other machinery and equipment	1 623.4	1 416.5	1 603.4	1 529.5
Heritage assets	-	0.1	0.2	-
Specialised military assets	-	-	83.1	19.0
Biological assets	10.6	2.7	2.1	2.0
Land and subsoil assets	27.4	49.0	83.9	0.1
Software and other intangible assets	187.7	198.3	193.2	40.8
Total payments for capital assets	7 018.5	8 508.4	9 202.2	9 336.2
Payments for financial assets	1 105.9	10 972.6	31 553.0	20 889.2
Total	541 443.4	635 953.3	747 196.8	817 378.6
Unallocated	-	-	-	-
Contingency reserve	-	-	-	-
Projected underspending	-	-	-	-1 700.0
Total	541 443.4	635 953.3	747 196.8	815 678.6

Table 4 Expenditure by economic classification 2007/08 to 2013/14

Revised estimate	Medium-term expenditure estimates			R million
	2010/11	2011/12	2012/13	
88 324.0	94 788.4	100 350.8	107 316.5	Current payments
				Compensation of employees
74 278.1	79 661.6	84 435.8	90 409.3	Salaries and wages
14 046.0	15 126.9	15 914.9	16 907.2	Social contributions
46 980.3	52 944.2	55 829.0	59 536.1	Goods and services
66 579.3	76 606.4	90 838.6	104 067.6	Interest and rent on land
66 578.5	76 605.4	90 837.4	104 066.4	Interest (Incl. interest on finance leases)
0.8	1.1	1.2	1.2	Rent on land
201 883.7	224 339.0	247 018.3	270 920.2	Total current payments
				Transfers and subsidies to:
384 334.3	428 131.5	457 512.2	486 602.9	Provinces and municipalities
323 080.3	357 928.6	380 449.6	404 251.4	Provinces
323 080.3	357 928.6	380 449.6	404 251.4	Provincial revenue funds
61 254.0	70 202.9	77 062.5	82 351.5	Municipalities
61 254.0	70 202.9	77 062.5	82 351.5	Municipal bank accounts
55 866.1	68 241.9	73 170.5	78 537.2	Departmental agencies and accounts
11.6	12.4	13.0	13.7	Social security funds
55 854.6	68 229.5	73 157.5	78 523.5	Departmental agencies (non-business entities)
17 571.1	19 365.4	20 766.7	21 953.2	Universities and technikons
1 358.2	1 463.4	1 723.6	1 830.5	Foreign governments and international organisations
20 459.5	23 642.9	25 011.7	25 561.1	Public corporations and private enterprises
18 180.6	20 434.1	21 742.4	22 063.1	Public corporations
9 836.7	9 879.4	9 997.1	8 896.9	Subsidies on products or production
8 343.9	10 554.7	11 745.4	13 166.3	Other transfers to public corporations
2 278.9	3 208.8	3 269.3	3 498.0	Private enterprises
1 813.5	2 718.2	2 663.9	2 856.4	Subsidies on products or production
465.4	490.6	605.4	641.6	Other transfers to private enterprises
1 461.7	1 500.4	1 874.8	2 099.0	Non-profit institutions
97 282.0	106 151.3	115 494.5	124 154.6	Households
91 514.5	101 279.1	110 239.7	118 596.5	Social benefits
5 767.5	4 872.3	5 254.9	5 558.1	Other transfers to households
578 332.9	648 496.9	695 554.1	740 738.6	Total transfers and subsidies
				Payments for capital assets
5 615.9	7 845.0	10 560.6	14 057.6	Buildings and other fixed structures
4 479.1	5 486.6	7 813.1	11 078.5	Buildings
1 136.8	2 358.3	2 747.6	2 979.1	Other fixed structures
3 144.0	3 302.7	3 202.5	3 344.4	Machinery and equipment
1 699.1	1 922.9	1 645.0	1 697.5	Transport equipment
1 444.9	1 379.8	1 557.5	1 646.9	Other machinery and equipment
0.0	-	-	-	Heritage assets
19.0	20.7	21.3	22.4	Specialised military assets
2.0	0.2	0.3	0.3	Biological assets
0.1	-	-	-	Land and subsoil assets
35.9	38.3	39.1	39.9	Software and other intangible assets
8 817.0	11 206.9	13 823.7	17 464.5	Total payments for capital assets
20 889.7	750.1	0.1	0.1	Payments for financial assets
809 923.3	884 792.9	956 396.3	1 029 123.4	Total
-	40.0	330.0	530.0	Unallocated
-	4 090.4	11 405.4	23 375.2	Contingency reserve
-	-	-	-	Projected underspending
809 923.3	888 923.3	968 131.7	1 053 028.6	Total

Table 5 Amounts to be appropriated from the National Revenue Fund for 2011/12

R million	Appropriated (including direct charges)	Current payments	Transfers and subsidies	Payments for capital assets	Payments for financial assets	To be appropriated	Increase/ Decrease	
	2010/11			2011/12				
Central Government Administration								
1	The Presidency	706.8	417.5	387.8	14.5	-	819.8	113.0
2	Parliament	1 571.9	1 383.1	287.9	3.9	-	1 674.9	103.0
3	Cooperative Governance and Traditional Affairs	41 096.9	691.3	47 222.4	19.8	0.1	47 933.6	6 836.7
4	Home Affairs	5 719.6	4 437.4	1 000.1	26.7	-	5 464.1	-255.5
5	International Relations and Cooperation	4 824.4	3 703.1	809.9	283.7	-	4 796.8	-27.7
6	Performance Monitoring and Evaluation	20.4	72.8	-	3.0	-	75.8	55.4
7	Public Works	6 446.3	2 265.4	4 010.3	1 543.6	-	7 819.3	1 372.9
8	Women, Children and People with Disabilities	97.8	60.5	55.2	2.3	-	117.9	20.2
Financial and Administrative Services								
9	Government Communication and Information System	546.2	334.8	159.2	2.4	-	496.4	-49.8
10	National Treasury	378 589.1	78 015.4	317 463.8	13.7	750.0	396 242.8	17 653.7
11	Public Enterprises	350.6	188.1	40.8	1.4	-	230.2	-120.4
12	Public Service and Administration	651.5	396.5	290.9	2.7	-	690.1	38.6
13	Statistics South Africa	1 973.4	3 188.8	10.5	41.7	-	3 240.9	1 267.5
Social Services								
14	Arts and Culture	2 406.7	392.9	2 069.3	6.4	-	2 468.6	61.9
15	Basic Education	10 918.5	2 136.9	11 025.3	706.0	-	13 868.1	2 949.7
16	Health	22 967.9	1 209.3	24 489.3	32.9	-	25 731.6	2 763.6
17	Higher Education and Training	32 144.9	455.8	36 913.4	8.1	-	37 377.3	5 232.4
18	Labour	1 783.9	1 349.9	599.4	32.1	-	1 981.5	197.6
19	Social Development	95 929.1	543.7	104 177.1	11.9	-	104 732.7	8 803.6
20	Sport and Recreation South Africa	1 245.6	222.5	574.1	6.0	-	802.7	-442.9
Justice, Crime Prevention and Security								
21	Correctional Services	15 129.0	15 342.1	31.3	1 185.8	-	16 559.2	1 430.2
22	Defence and Military Veterans	30 715.3	27 278.4	6 978.0	348.6	-	34 605.0	3 889.6
23	Independent Complaints Directorate	129.3	147.6	0.1	4.0	-	151.6	22.3
24	Justice and Constitutional Development	12 180.4	10 933.7	1 791.1	792.9	-	13 517.7	1 337.3
25	Police	52 556.4	54 596.4	464.6	3 000.5	-	58 061.5	5 505.1
Economic Services and Infrastructure								
26	Agriculture, Forestry and Fisheries	3 708.0	2 039.4	2 567.8	112.5	-	4 719.7	1 011.8
27	Communications	2 114.0	585.2	1 299.6	4.3	-	1 889.1	-224.9
28	Economic Development	418.6	123.2	464.8	6.5	-	594.5	175.9
29	Energy	5 535.4	297.2	5 784.9	7.8	-	6 089.9	554.5
30	Environmental Affairs	2 557.8	1 119.1	1 219.0	508.0	-	2 846.1	288.3
31	Human Settlements	19 215.6	642.2	21 700.6	235.7	-	22 578.5	3 362.9
32	Mineral Resources	1 030.0	587.6	438.4	10.1	-	1 036.2	6.2
33	Rural Development and Land Reform	6 769.6	2 524.1	5 564.7	35.4	-	8 124.2	1 354.7
34	Science and Technology	4 615.5	369.7	4 031.6	3.3	-	4 404.6	-210.9
35	Tourism	1 151.8	268.2	968.0	6.7	-	1 242.9	91.0
36	Trade and Industry	6 150.1	1 172.4	5 600.4	14.1	-	6 786.9	636.8
37	Transport	30 178.0	841.8	34 238.0	4.1	-	35 084.0	4 906.0
38	Water Affairs	7 996.6	4 005.2	3 767.2	2 163.9	-	9 936.2	1 939.6
Total	812 142.9	224 339.0	648 496.9	11 206.9	750.1	884 792.9	72 650.0	

1. A positive number reflects an increase and a negative number a decrease.

Table 6a Conditional grants to provinces 2007/08 to 2013/14¹

R million	Audited outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimates		
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14
Central Government Administration								
3	–	29.7	–	214.4	214.4	305.0	180.0	190.0
7	836.6	889.3	1 466.0	2 252.9	2 181.3	2 270.9	2 504.8	2 778.5
Financial and Administrative Services								
10	–	–	4 200.0	–	–	–	–	–
Social Services								
14	163.2	344.6	440.6	512.7	512.7	543.4	570.8	602.2
15	4 012.9	5 215.6	6 460.1	8 683.6	7 107.4	10 546.4	11 330.6	11 953.7
16	12 368.6	14 988.7	17 523.8	21 363.7	20 483.0	23 947.7	25 746.5	28 175.2
17	2 435.3	3 005.8	3 155.3	3 804.0	3 804.0	4 326.0	4 705.1	5 262.4
20	194.0	293.7	402.3	426.4	426.4	452.0	474.6	500.7
Economic Services and Infrastructure								
26	761.7	898.0	973.7	1 166.9	1 166.9	1 487.1	1 683.9	1 866.9
31	6 988.5	8 727.6	10 819.3	13 032.1	13 032.1	14 941.5	15 599.4	16 457.4
37	5 853.7	7 663.3	10 832.1	9 404.1	9 012.8	10 615.9	11 928.5	12 860.0
Total	33 614.6	42 056.3	56 273.0	60 860.7	57 940.8	69 435.8	74 724.2	80 647.0

1. Detail provided in the Division of Revenue Act (2011).

Table 6b Conditional grants to municipalities 2007/08 to 2013/14¹

R million	Audited outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimates		
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14
Central Government Administration								
3	7 167.2	7 186.4	8 988.3	9 726.7	9 726.7	12 132.9	14 474.2	15 272.1
7	–	–	100.5	623.0	551.4	679.6	665.7	779.5
Financial and Administrative Services								
10	716.5	361.5	808.1	1 394.6	1 186.6	1 184.6	1 279.3	1 326.1
Social Services								
20	4 605.0	4 295.0	2 168.7	512.6	512.6	–	–	–
Economic Services and Infrastructure								
29	462.5	589.1	1 074.6	1 240.1	1 240.1	1 376.6	1 151.4	1 214.8
31	2 948.3	3 572.4	4 418.2	5 157.6	5 157.6	6 267.0	7 409.5	8 126.8
37	1 174.0	2 928.7	2 431.0	3 709.9	3 709.9	4 838.8	5 037.2	5 602.9
38	732.9	994.6	902.4	990.5	966.3	1 010.8	399.0	420.9
Total	17 806.4	19 927.6	20 891.8	23 354.9	23 051.2	27 490.3	30 416.4	32 743.1

1. Detail provided in the Division of Revenue Act (2011).

Table 7 Training expenditure per vote 2007/08 to 2013/14

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimates		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Central Government Administration							
1 The Presidency	2.3	1.4	1.9	2.1	2.4	2.5	2.8
2 Parliament	10.6	11.9	10.1	10.4	14.2	15.0	16.8
3 Cooperative Governance and Traditional Affairs	2.3	1.7	1.8	2.4	5.0	5.2	5.5
4 Home Affairs	32.4	34.0	26.4	48.5	37.2	37.5	39.6
5 International Relations and Cooperation	13.1	8.1	12.4	19.6	16.6	17.8	20.0
7 Public Works	15.2	15.2	22.0	27.5	24.8	24.8	26.1
8 Women, Children and People with Disabilities	–	–	–	0.2	0.3	0.4	0.5
Financial and Administrative Services							
9 Government Communication and Information System	4.7	4.2	4.4	4.9	4.8	5.0	5.3
10 National Treasury	16.1	16.9	10.0	20.0	10.8	11.6	12.2
11 Public Enterprises	1.3	2.3	2.2	3.3	2.9	3.1	3.4
12 Public Service and Administration	2.2	3.7	2.6	3.4	3.2	3.4	3.7
13 Statistics South Africa	11.9	14.0	21.2	38.5	21.4	22.5	23.7
Social Services							
14 Arts and Culture	3.1	4.5	2.1	2.3	1.6	1.7	1.8
15 Basic Education	2.8	6.5	1.7	2.8	1.9	2.0	2.1
16 Health	9.5	1.8	4.5	5.5	4.0	4.5	4.9
17 Higher Education and Training	2.5	2.9	1.9	2.4	1.3	1.3	1.3
18 Labour	6.5	8.9	8.3	8.9	11.8	12.0	12.7
19 Social Development	1.7	1.8	2.3	2.5	2.7	2.9	3.0
20 Sport and Recreation South Africa	0.9	0.9	1.1	1.2	1.6	1.6	1.5
Justice, Crime Prevention and Security							
21 Correctional Services	125.6	76.0	89.5	64.0	100.5	105.6	111.0
22 Defence and Military Veterans	87.4	117.7	113.6	145.6	131.9	133.0	141.2
23 Independent Complaints Directorate	0.6	0.4	0.7	1.2	1.2	1.3	1.4
24 Justice and Constitutional Development	18.3	37.5	86.4	78.9	83.6	89.4	94.0
25 Police	966.0	1 124.0	1 253.4	1 386.6	1 449.0	1 514.2	1 590.0
Economic Services and Infrastructure							
26 Agriculture, Forestry and Fisheries	20.3	24.2	16.4	20.0	13.1	14.9	25.5
27 Communications	3.7	6.0	9.0	5.9	6.7	7.3	7.7
28 Economic Development	–	–	–	0.1	0.8	0.9	1.0
29 Energy	0.7	1.6	2.1	2.1	2.7	2.9	3.3
30 Environmental Affairs	2.1	2.2	2.3	2.5	4.1	4.2	4.3
31 Human Settlements	1.2	2.9	2.3	14.1	4.0	4.3	4.5
32 Mineral Resources	1.7	3.8	9.1	3.5	3.9	4.1	4.4
33 Rural Development and Land Reform	9.0	9.4	11.9	12.6	13.3	13.9	–
34 Science and Technology	1.7	2.0	3.2	5.1	5.4	5.6	5.9
35 Tourism	1.4	1.5	1.0	1.0	1.0	1.1	1.1
36 Trade and Industry	1.0	2.5	9.3	11.0	13.4	14.1	14.9
37 Transport	3.2	1.8	3.9	4.0	2.9	3.1	3.5
38 Water Affairs	38.9	40.8	50.6	56.7	62.4	68.6	75.5
Total	1 421.9	1 595.3	1 801.5	2 021.3	2 069.6	2 164.4	2 277.3

Table 8 Infrastructure expenditure per vote 2007/08 to 2013/14¹

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimates			
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
Central Government Administration								
3	Cooperative Governance and Traditional Affairs	6 967.2	6 969.0	8 727.5	9 514.7	11 500.2	13 983.1	14 752.2
4	Home Affairs	122.9	136.0	102.0	131.1	209.8	215.8	248.0
5	International Relations and Cooperation	649.9	926.7	165.3	267.9	250.9	318.2	319.2
7	Public Works	488.0	988.4	1 253.6	1 376.0	1 443.9	1 474.7	1 724.7
Financial and Administrative Services								
10	National Treasury	41.2	373.5	578.1	1 155.0	853.6	880.0	855.0
Social Services								
14	Arts and Culture	281.2	448.6	449.7	447.8	455.6	483.0	509.5
15	Basic Education	2 636.0	3 101.5	3 884.7	4 832.3	6 398.3	8 408.2	11 617.3
16	Health	5 507.8	3 361.4	3 720.5	5 403.0	5 838.1	6 156.9	5 989.0
18	Labour	64.4	37.6	26.9	28.5	44.2	10.5	7.6
20	Sport and Recreation South Africa	4 605.0	4 295.0	2 168.7	512.6	-	-	-
Justice, Crime Prevention and Security								
21	Correctional Services	1 005.3	948.5	833.6	950.9	968.3	1 016.8	1 072.7
22	Defence and Military Veterans	8.1	621.3	665.0	732.7	1 058.4	1 085.7	1 118.0
24	Justice and Constitutional Development	361.1	479.5	590.1	631.4	759.4	1 105.0	1 161.7
25	Police	732.5	991.2	1 070.1	1 118.2	1 235.3	1 544.6	1 629.5
Economic Services and Infrastructure								
26	Agriculture, Forestry and Fisheries	105.3	110.3	131.7	181.7	260.1	239.3	141.0
27	Communications	646.0	750.0	920.0	540.9	404.0	317.0	376.1
29	Energy	1 435.6	1 739.9	2 400.3	4 239.9	4 334.4	4 533.5	3 200.3
30	Environmental Affairs	603.7	405.4	477.5	637.7	647.8	149.7	187.5
31	Human Settlements	9 936.8	12 300.0	15 087.4	18 155.9	21 440.0	23 488.4	25 101.5
33	Rural Development and Land Reform	5.6	6.3	2.8	6.9	21.2	11.3	4.2
34	Science and Technology	272.0	408.0	699.3	236.9	254.2	473.1	595.2
36	Trade and Industry	911.0	967.5	1 407.3	1 224.4	827.4	839.6	629.9
37	Transport	10 889.1	13 915.3	16 955.1	19 747.4	23 128.1	25 592.1	27 901.4
38	Water Affairs	930.4	1 904.1	2 212.8	2 764.0	4 123.8	4 455.1	5 064.6
Total		49 206.1	56 185.0	64 530.2	74 837.7	86 457.1	96 781.5	104 206.1

1. Amounts include mega infrastructure projects and programmes (over R300 million per year for a minimum of three years, or R900 million total project cost), large projects and programmes (between R300 million and R50 million per year within a given MTEF period), small projects and programmes (less than R50 million per year). Infrastructure transfers to other spheres, agencies and entities, fixed installations transferred to households and maintenance and repair projects are also included. Details are provided in the additional tables in each vote.

Table 9 Personnel expenditure per vote 2007/08 to 2013/14

R million	Audited outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimates			
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14	
Central Government and Administration									
1	The Presidency	117.1	141.7	181.9	209.5	209.5	237.4	251.4	275.6
2	Parliament	517.3	651.0	784.6	868.1	868.1	936.1	990.2	1 046.8
3	Cooperative Governance and Traditional Affairs	128.1	153.8	165.7	232.1	232.1	232.9	245.9	258.1
4	Home Affairs	1 087.0	1 296.0	1 637.1	1 971.1	1 971.1	2 206.6	2 317.5	2 443.5
5	International Relations and Cooperation	1 293.2	1 683.4	1 833.3	1 858.6	1 858.6	1 704.5	1 811.9	2 034.5
6	Performance Monitoring and Evaluation	1.6	2.6	3.4	22.5	22.5	50.9	84.0	102.7
7	Public Works	721.5	801.0	976.1	1 200.9	1 200.9	1 242.1	1 241.2	1 305.1
8	Women, Children and People with Disabilities	4.8	5.9	9.8	24.1	24.1	34.6	39.9	46.3
Financial and Administrative Services									
9	Government Communication and Information System	116.2	114.0	138.7	150.7	150.7	165.4	173.4	183.2
10	National Treasury	272.7	321.0	402.1	552.6	511.2	605.9	637.7	672.2
11	Public Enterprises	56.0	70.4	75.2	90.3	90.3	96.5	101.0	106.2
12	Public Service and Administration	115.8	129.1	156.8	183.6	183.6	208.8	229.5	250.5
13	Statistics South Africa	472.0	700.7	879.2	978.7	931.6	1 531.0	1 165.0	1 185.0
Social Services									
14	Arts and Culture	107.2	126.8	146.3	152.9	152.9	164.8	174.3	183.7
15	Basic Education	150.4	186.3	225.2	271.1	271.1	325.6	349.3	371.7
16	Health	258.6	292.5	333.0	385.0	385.0	424.0	465.0	492.0
17	Higher Education and Training	146.2	174.8	201.8	251.6	249.6	301.5	334.1	359.7
18	Labour	497.9	491.3	576.5	744.8	701.9	786.3	865.8	915.2
19	Social Development	133.6	184.1	220.1	254.9	254.9	267.8	285.1	300.4
20	Sport and Recreation South Africa	43.4	54.5	61.3	75.8	74.3	79.9	84.0	88.4
Justice, Crime Prevention and Security									
21	Correctional Services	6 799.2	8 077.8	9 065.5	10 247.5	10 247.5	10 964.9	11 522.8	12 191.7
22	Defence and Military Veterans	9 735.9	10 620.0	12 705.6	16 219.0	16 219.0	16 770.7	17 700.5	18 787.8
23	Independent Complaints Directorate	45.7	58.0	65.1	75.8	75.8	86.6	91.8	97.2
24	Justice and Constitutional Development	4 250.9	5 326.2	6 028.1	7 262.9	7 224.1	7 631.2	8 382.2	8 850.6
25	Police	25 610.6	29 147.4	33 771.5	38 416.1	38 416.1	41 070.3	43 643.2	47 181.7
Economic Services and Infrastructure									
26	Agriculture, Forestry and Fisheries	811.1	931.3	1 082.2	1 199.6	1 199.6	1 273.0	1 395.3	1 474.5
27	Communications	97.7	108.0	129.6	164.6	164.6	171.7	179.3	188.0
28	Economic Development	–	–	7.9	57.7	33.7	79.2	91.8	96.5
29	Energy	85.5	103.0	133.3	147.9	147.9	181.7	192.4	218.3
30	Environmental Affairs	182.5	197.7	254.0	333.1	333.1	405.2	426.6	451.1
31	Human Settlements	103.5	134.2	166.9	289.0	289.0	319.0	331.9	346.8
32	Mineral Resources	210.1	231.0	275.1	343.7	343.7	377.6	401.0	421.8
33	Rural Development and Land Reform	476.4	614.2	760.9	1 196.8	1 196.8	1 395.7	1 523.3	1 608.9
34	Science and Technology	102.1	141.6	167.5	223.7	223.7	225.3	237.6	259.6
35	Tourism	130.8	106.4	89.6	101.1	101.1	141.9	158.4	169.4
36	Trade and Industry	327.5	383.1	437.7	569.8	533.3	602.2	644.2	676.4
37	Transport	131.3	182.6	228.1	266.2	266.2	294.4	309.9	326.5
38	Water Affairs	880.5	875.6	899.8	1 147.3	964.8	1 195.4	1 272.4	1 348.8
Total		56 221.9	64 819.2	75 276.3	88 740.8	88 324.0	94 788.4	100 350.8	107 316.5

Table 10 Departmental receipts per vote 2007/08 to 2013/14¹

R million	Audited outcome			Adjusted estimate	Revised estimate	Medium-term receipts estimates			
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14	
Central Government Administration									
1	The Presidency	0.3	0.2	0.6	0.5	0.5	0.3	0.3	0.3
2	Parliament	43.4	45.9	38.5	15.5	15.5	11.9	11.5	11.2
3	Cooperative Governance and Traditional Affairs	0.7	0.8	0.5	0.6	0.6	0.6	0.6	0.6
4	Home Affairs	421.1	355.7	442.2	455.3	455.3	482.6	506.7	557.4
5	International Relations and Cooperation	65.1	43.6	23.2	22.0	31.2	22.9	24.0	25.3
6.	Performance Monitoring and Evaluation	-	-	-	-	-	-	-	-
7	Public Works	95.8	28.5	39.6	30.9	30.9	38.7	40.6	42.6
8	Women, Children and People with Disabilities	-	-	-	-	-	-	-	-
Financial and Administrative Services									
9	Government Communication and Information System	3.1	3.3	2.9	3.0	2.7	2.5	2.6	2.6
10	National Treasury	5 095.8	5 270.4	2 543.6	3 204.2	2 842.2	1 233.2	2 391.4	2 746.0
11	Public Enterprises	0.1	0.8	1.2	1.2	1.2	0.1	0.1	0.1
12	Public Service and Administration	2.7	1.0	2.2	0.7	0.7	0.7	0.8	0.8
13	Statistics South Africa	17.7	2.8	8.5	2.2	2.2	2.4	2.5	2.7
Social Services									
14	Arts and Culture	0.4	3.6	1.1	0.8	0.8	0.8	0.9	1.1
15	Basic Education	1.9	1.5	0.7	1.2	1.5	1.0	1.1	1.2
16	Health	41.2	31.2	45.2	31.5	31.5	32.8	32.9	36.2
17	Higher Education and Training	6.9	6.7	6.7	7.9	7.9	7.9	8.0	8.0
18	Labour	8.4	28.9	12.9	16.1	16.1	22.4	24.3	25.5
19	Social Development	237.0	16.5	30.6	218.3	0.2	10.1	10.1	10.1
20	Sport and Recreation South Africa	0.0	0.3	0.2	0.3	0.3	0.4	0.4	0.4
Justice, Crime Prevention and Security									
21	Correctional Services	136.3	80.5	108.5	143.4	120.4	126.1	132.3	139.2
22	Defence and Military Veterans	551.9	629.4	699.9	902.5	902.5	803.5	843.7	885.9
23	Independent Complaints Directorate	0.4	0.1	0.2	0.2	0.1	0.1	0.2	0.2
24	Justice and Constitutional Development	317.0	356.8	382.9	377.6	377.6	399.8	422.5	443.7
25	Police	345.1	376.5	347.6	272.9	280.3	263.9	258.7	257.1
Economic Services and Infrastructure									
26	Agriculture, Forestry and Fisheries	121.1	254.0	250.5	119.3	119.3	121.5	118.2	123.6
27	Communications	3 007.4	3 520.1	1 344.8	1 398.7	898.9	913.4	928.0	943.4
28	Economic Development	229.3	244.4	456.0	230.0	366.3	243.8	250.0	263.8
29	Energy	1.2	3.3	4.4	3.7	3.7	3.9	4.1	4.2
30	Environmental Affairs	4.7	8.5	2.1	4.1	4.1	2.8	2.8	2.8
31	Human Settlements	0.7	2.4	0.7	1.2	1.2	0.5	0.6	0.6
32	Mineral Resources	267.1	261.3	212.7	99.0	99.0	27.6	28.0	28.3
33	Rural Development and Land Reform	176.4	64.2	44.0	41.7	41.7	69.0	64.5	68.3
34	Science and Technology	0.2	0.3	1.6	0.4	0.7	0.1	0.1	0.1
35	Tourism	-	-	0.7	1.5	1.5	-	-	-
36	Trade and Industry	94.2	64.9	52.6	108.3	90.3	115.0	120.3	121.5
37	Transport	362.5	215.8	106.1	266.7	266.7	137.4	144.3	151.5
38	Water Affairs	0.1	26.6	76.3	42.1	42.1	22.9	24.3	25.9
Total departmental receipts as per Estimates of National Expenditure		11 657.1	11 950.7	7 291.9	8 025.3	7 057.5	5 122.8	6 401.5	6 932.4
Less: Parliament (retained departmental receipts)		43.4	45.9	38.5	15.5	15.5	11.9	11.5	11.2
Plus: Direct receipts into the National Revenue Fund (National Treasury) ²		1 020.9	-	1 000.0	-	600.0	-	-	-
Plus: South African Revenue Service departmental receipts collection		58.0	711.4	635.1	4 255.0	4 612.0	4 890.0	5 150.0	5 430.0
Total departmental receipts as per Budget Review		12 692.6	12 616.2	8 888.5	12 264.8	12 254.0	10 000.9	11 540.0	12 351.1

1. Departmental receipts exclude extraordinary receipts which are deposited into the National Revenue Fund. Extraordinary receipts are included in the Budget Review.

2. Direct receipts into the National Revenue Fund in this instance refer to Levy accounts/exchange control forfeits collected by the South African Reserve Bank.

Information contained in each chapter

The Estimates of National Expenditure publication describes in detail the planned spending of all national government departments for three years going forward: that is, the years of the medium term expenditure framework (MTEF). The Estimates of National Expenditure is tabled in Parliament by the Minister of Finance on the day the main Budget is tabled. It provides details about the allocation of expenditure to all national departments set out in the Appropriation Bill, which is tabled on the same day.

The main divisions of the Appropriation Bill are divided into votes. A vote generally specifies the total amount appropriated per department, but more than one department may be contained within a single vote. Each chapter in the Estimates of National Expenditure relates to a vote. By appropriating funds from the National Revenue Fund through the approval of the Appropriation Bill, Parliament authorises expenditure.

Votes are arranged into the following functional groupings to facilitate analysis of interdepartmental initiatives and service delivery.

- central government administration
- financial and administrative services
- social services
- justice, crime prevention and security
- economic services and infrastructure.

These functional groupings are informal and are not the same as either the government's cluster system groupings or the standard chart of accounts' more rigorous classification of government functions. In the functional budgeting approach linked to the outcomes approach which has been adopted, these groupings are disaggregated further.

More detailed information for each vote is available on www.treasury.gov.za. More comprehensive coverage of vote specific information, particularly about goods and services, transfers, donor funding, public entities and lower level institutional information is provided.

The chapter for each vote contains the following information:

Budget summary

This table shows the budgeted expenditure for the vote for the three-year MTEF period.

R million	2011/12					2012/13	2013/14
	Total to be Appropriated	Current payments	Transfers and subsidies	Payments for capital assets	Payments for financial assets	Total	Total
MTEF allocation							
Programme name							
Programme name							
Programme name							
Subtotal							
Direct charge against the National Revenue Fund							
Item							
Item							
Total expenditure estimates							
Executive authority	Minister						
Accounting officer	Director-General / Chief Operating Officer						
Website address							

Due to rounding off, the figures do not necessarily add up to the total. Figures are mostly denoted in rand million unless otherwise indicated.

The **2011/12 total to be appropriated** shows the expenditure allocation per programme and the aggregated amount for 2011/12 and corresponds with the information in the 2011 Appropriation Bill.

The totals to be appropriated by Parliament are categorised by economic classification into **current payments, transfers and subsidies, payments for capital assets** and **payments for financial assets**.

Current payments are payments made by a department for its operational requirements.

Transfers and subsidies are payments made by a department for which the department does not directly receive anything in return.

Payments for capital assets are payments made by a department for an asset that can be used for more than one year and from which future economic benefits or service potential are expected to flow.

Payments for financial assets mainly consist of payments made by departments as loans to public corporations or as equity investments in public corporations. The reason for expensing the payments rather than treating them as financing is that, unlike other financial transactions, the purpose of the transaction is not profit oriented. This column is only shown in votes where such payments have been budgeted for. Payments for theft and losses are included in this category; however, these payments are not budgeted for and will thus only appear in the historical information, which can be seen in the expenditure estimates table.

Estimates for the two outer years of the expenditure framework, **2012/13** and **2013/14**, are also shown. These estimates are not included in the 2011 Appropriation Bill as they are still only indicative of actual expenditure levels in the outer years of the MTEF period. Parliament typically only appropriates or authorises expenditure for one financial year at a time. These forward estimates or indicative allocations do, however, form the basis for the planning of the 2012 Budget.

Direct charges against the National Revenue Fund are amounts spent in terms of statutes and do not require parliamentary approval and thus are not contained in the Appropriation Bill. They are not budgeted for under any programme on a particular vote and include, for example, state debt costs.

Total expenditure estimates are the sum of the expenditure on programmes and direct charges, classified into current payments, transfers and subsidies, payments for capital assets and payments for financial assets.

The last lines of the table provide accountability information: the vote's executive authority, accounting officer and website address.

Aim

The aim of the vote captures the department's mandate, strategic objectives or administrative functions, and corresponds with the aim stated in the Appropriation Bill.

Programme purposes

Each vote is comprised of several programmes. The activities and functions performed by a department are typically divided into these programmes. Programme 1 is the *Administration* programme, which houses the administrative activities and functions required to keep the department operating. Each vote programme is listed individually with its purpose, as stated in the Appropriation Bill. The programme purpose outlines the activities and functions of the particular programme as per the approved budget programme structure, in terms of the Public Finance Management Act (1999).

Strategic overview: 2007/08 – 2013/14

This section describes the department's strategic direction over the period under review. It includes policy and mandate developments, legislative changes, a discussion on how the department will contribute towards the achievement of outcomes that are attributed to it and the related outputs listed in the service delivery agreements, as well as a table of selected quantitative and trendable performance indicators.

Savings and cost effectiveness measures

In this section, departments discuss details of the reprioritisation of budgets and savings and cost reduction measures to be effected over the MTEF period.

These typically emanate from reduced expenditure on non-core goods and services, the rescheduling of expenditure over time in the case of delays, reduced transfers to certain public entities, improved financial management, reduced expenditure on administration in favour of frontline services and through seeking alternative sources of financing.

Selected performance indicators

Indicator	Programme	Past			Current	Projections		
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14

The table presents only a selected set of a department or entity's performance information and is not intended to provide a comprehensive view of performance. It should, however, contain key performance indicators that form part of the service delivery agreements.

An **indicator** is a numerical measure that tracks a department's or entity's progress towards its goal. An indicator may measure inputs, activities, outputs, outcomes or in certain instances explanatory information relating to the internal or external environment.

The **programme** column links the indicator to the vote programme associated with it.

Expenditure estimates

This table shows expenditure outcomes and estimates over a seven-year period, by vote programme and by economic classification item.

Programme	Audited outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14
R million								
1. Programme name								
2. Programme name								
3. Programme name								
Subtotal								
Direct charge against the National Revenue Fund								
Item								
Item								
Total								
Change to 2010 Budget estimate								

Economic classification

Current payments			
Economic classification item			
Economic classification item			
Transfers and subsidies			
Economic classification item			
Economic classification item			
Payments for capital assets			
Economic classification item			
Economic classification item			
Payments for financial assets			
Total			

Expenditure is set out first by **programme** and then by **economic classification** over a seven-year period.

For comparability, where programme structures have been changed in recent years, expenditure has, where possible, been reallocated to the new approved programme structure for all seven years.

Audited outcomes are presented as they appear in the department or entity's annual financial statements, with amounts reallocated for any subsequent approved budget programme structure changes.

Adjusted appropriation includes any changes made to the appropriation voted in the main 2010 Budget for the financial year, with amounts reallocated for any subsequent approved programme structure changes. Changes are generally made mid-year at the time of the adjustments budget. These adjustments can only be made in terms of the circumstances listed in section 30 of the Public Finance Management Act (1999). Adjustments were included in the Adjustments Appropriation Bill, which Parliament approved before expenditure could take place, and the details were published in the Adjusted Estimates of National Expenditure publication.

The **revised estimate** for 2010/11 represents National Treasury's current estimate, in consultation with the department, of expenditure outcomes. This does not imply a change in the amounts voted to departments in the 2010/11 adjusted appropriation; it is merely a more recent estimate of what the department is likely to spend in this financial year.

The **medium-term expenditure estimates** are shown for 2011/12, 2012/13 and 2013/14. The spending figures for 2011/12 constitute the proposed appropriation to be funded from the National Revenue Fund that is contained in the main Appropriation Bill, which has to be considered by Parliament after it has been tabled. The medium-term expenditure estimates for 2012/13 and 2013/14 are indicative allocations, and will form the basis for planning the 2012 Budget.

Direct charges against the National Revenue Fund are amounts spent in terms of statutes and do not require parliamentary approval and thus are not contained in the Appropriation Bill. They are not budgeted for in terms of a programme on a particular vote and include, for example, state debt costs.

The **totals**, which are the sum of the expenditure on programmes and direct charges, are also classified into current payments, transfers and subsidies, payments for capital assets and payments for financial assets.

Expenditure trends

The main expenditure trends and vote programme structure changes from 2007/08 to 2013/14 are described. Trends are generally represented over the MTEF period between 2010/11 and 2013/14, or over the entire period between 2007/08 and 2013/14.

An explanation of the spending focus over the MTEF period in relation to the strategic objectives and the performance targets that will be achieved over the period is given. Expenditure growth in the historical period is also typically compared to expenditure anticipated over the MTEF period. Reasons are given for trends that are identified, and the significant increases or decreases in expenditure are explained in terms of the underlying policies that inform the trends. A summary of the new (additional) allocations to the vote programme's baseline budget is given. The baseline is derived from the previous year's forward estimates after consideration of savings, cost reduction and reprioritisation opportunities.

Generally, unless otherwise indicated, average annual growth rates are reflected in nominal, not real, terms. Where inflationary growth has been excluded from the calculation and real growth estimates are provided, the consumer price index has been used to deflate the growth rate.

Personnel information

A brief summary of the personnel posts per programme by salary level is given.

Infrastructure spending

Expenditure on existing, new and mega infrastructure is discussed.

Departmental receipts

Departmental anticipated (non-tax) receipts for the MTEF period are described in relation to receipts for 2010/11.

R thousand	Audited outcome			Adjusted estimate	Revised estimate	Medium-term receipts estimate		
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14
Departmental receipts								
Economic classification item								
Economic classification item								
Total								

Information on each programme

Each programme section (with the exception of the *Administration* programme) opens with the purposes and activities of the subprogrammes that form that programme. Key functions, activities and transfers are highlighted by subprogramme. The work carried out by the subprogramme is explained in relation to the personnel responsible, the spending allocation of the funding, and outputs achieved.

Programme 1 is always *Administration*, which includes spending on the ministry, the director-general's office and central corporate services. The Ministry subprogramme includes spending on the ministerial and deputy ministerial offices.

Objectives and measures

Objectives and measures are indicated for each programme. Objectives should include an explanation of strategic intent as well as specific interventions and progress measures. (Programme 1 (*Administration*) is generally exempt from providing objectives and measures.)

For example: Improve the provision of specified services and products to eligible citizens and residents (strategic intent/objective) by reducing the time taken to issue passports and travel documents (specific intervention) from 10 days in 2010/11 to 5 days in 2013/14 (progress measure).

Expenditure estimates (per programme)

Tables for each programme set out expenditure by subprogramme and economic classification over a seven-year period.

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R million							
Subprogramme name							
Subprogramme name							
Subprogramme name							
Total							
Change to 2010 Budget estimate							
Economic classification							
Current payments							
Economic classification item							
Economic classification item							
Transfers and subsidies							
Economic classification item							
Economic classification item							
Payments for capital assets							
Economic classification item							
Economic classification item							
Payments for financial assets							
Total							

Expenditure trends (per programme)

Important expenditure trends for each programme are explained. The scope of the information provided in this section is similar to what is provided for the entire vote.

Public entities and other agencies

The scope of information contained in the write-up on public entities is similar to what is reported for the department.

Information on each of the public entities generally consists of the following:

- key legislative mandates in terms of which the entity was established and within which it operates as well as the outcomes and related outputs as stated in service delivery agreements
- selected performance indicators relating to the entity's mandate
- planned deliverables for the next MTEF period
- key achievements during the previous reporting periods
- financial data tables for the entity, focusing on the sources of funding for the entity, key spending areas and expenditure trends, and, if applicable, an analysis of some of the more important items on the entity's balance sheet that relate to the key activities being carried out
- reprioritisation, savings and cost effectiveness measures implemented
- personnel expenditure by salary level
- a list of other entities for which more detail appears on www.treasury.gov.za appears at the end of each chapter together with a short description of what the entity does and its total budget.

Additional tables

Additional tables appear at the end of the vote. These include:

Summary of expenditure trends and estimates per programme and economic classification

This table shows the budgeted expenditure and the revised estimate for 2010/11 as well as the audited outcome for 2009/10.

Details of approved establishment and personnel numbers per salary level

Employment information is provided in respect of the department. The amount spent by a department on compensation of employees is shown.

Information is provided on the **number of personnel posts filled/planned for on funded establishment** in the department at different salary levels **per programme** as at 30 September 2010.

Number of posts on approved establishment refers to the number of departmental employment positions approved by the Department of Public Service and Administration.

Number of funded posts refers to the number of departmental employment positions which are provided for within the budget.

Number of posts additional to the establishment typically refers to additional employment positions that have been allocated on an ad hoc basis and that do not form part of the approved departmental establishment.

Summary of expenditure on training

Information is provided on the funds spent on training as a proportion of compensation of employees, and the number of people trained by the department.

Summary of conditional grants to provinces and municipalities

A conditional grant refers to an allocation made by the national government, from its nationally raised revenue, to a province, local government or municipality, on condition that certain requirements or services are met.

Summary of departmental public private partnerships projects

Disclosure notes with additional details are provided for the projects signed in terms of Treasury Regulation 16.

Public private partnerships refer to contractual arrangements in which a private party performs part of a government function and assumes the associated risks. In return, the private party receives a fee according to predefined performance criteria. A public private partnership may also be a project in which a private party uses state assets for its own commercial purposes, and government benefits from the profits generated by the enterprise.

A signed project is a public private partnership project which has reached financial close and is being implemented.

Projects in preparation are in some stage of inception, feasibility or procurement, but have not yet reached financial close.

Unitary charge or fee refers to the total payment made to the private party for the provision of the various services.

Advisory fees are costs related to the hiring of transaction advisors who assist government with feasibility studies and procurement in the public private partnership project process.

Project monitoring cost is associated with the ongoing evaluation and monitoring of public private partnerships in operation.

Summary of donor funding

Donor funding is funding received by departments over and above the allocations provided in the South African government's appropriation legislation.

Donor funding comprises official development assistance and other local and international donations.

Official development assistance is an official resource flow from the international donor community to the South African government in the form of grants, technical cooperation and financial cooperation.

The **programme** column links the donor funding to the vote programme that is associated with it.

The **spending focus** shows what the department aims to achieve by using the funding.

Summary of expenditure on infrastructure

The infrastructure table includes new and replacement assets, maintenance and repairs, upgrades and additions, and rehabilitation, renovation and refurbishment of assets.

Departmental infrastructure refers to direct spending by a department on infrastructure assets which the department will own.

Infrastructure transfers to other spheres, agencies and departments refers to transfers and grants to other government institutions for expenditure on infrastructure.

Fixed installations transferred to households shows the transfer of funds to individual South Africans to be used for the construction of fixed 'on-site' structures that enhance the welfare of households.

Maintenance refers to all maintenance, repairs and refurbishment expenditure on infrastructure that prolongs the life and retains the value of the infrastructure asset. This item does not include day-to-day maintenance.

In all expenditure and revenue tables a dash (-) indicates that information is unavailable or zero.

Science and Technology

**National Treasury
Republic of South Africa**



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Vote 34

Science and Technology

Budget summary

R thousand	2011/12				2012/13	2013/14
	Total to be appropriated	Current payments	Transfers and subsidies	Payments for capital assets	Total	Total
MTEF allocation						
Administration	192 116	189 144	1 000	1 972	201 979	220 575
Research, Development and Innovation	854 610	54 323	800 067	220	1 112 372	1 272 812
International Cooperation and Resources	137 194	55 308	81 372	514	145 892	157 196
Human Capital and Knowledge Systems	1 950 427	26 221	1 924 095	111	2 045 547	2 406 335
Socio Economic Partnerships	1 270 271	44 717	1 225 113	441	1 381 566	1 453 176
Total expenditure estimates	4 404 618	369 713	4 031 647	3 258	4 887 356	5 510 094
Executive authority	Minister of Science and Technology					
Accounting officer	Director General of Science and Technology					
Website address	www.dst.gov.za					

Aim

Realise the full potential of science and technology in social and economic development, through the development of human resources, research and innovation.

Programme purposes

Programme 1: Administration

Purpose: Conduct the overall management of the department. Ensure that the organisations funded by the department comply with good corporate governance and their activities are aligned with the strategic focus of the national system of innovation. Monitor and evaluate the performance of the science councils.

Programme 2: Research, Development and Innovation

Purpose: Provide policy leadership in long term and cross cutting research and innovation areas in the national system of innovation. Play a key role in developing strategic new areas of focus for research and innovation in South Africa. Create an enabling environment and relevant instruments to support the commercialisation of research and development as well as innovation.

Programme 3: International Cooperation and Resources

Purpose: Develop and monitor bilateral and multilateral relationships and agreements in science and technology to strengthen the national system of innovation and enable a flow of knowledge, capacity and resources into South Africa and Africa.

Programme 4: Human Capital and Knowledge Systems

Purpose: Develop and implement national programmes to produce knowledge and develop human capital and the associated infrastructure and equipment.

Programme 5: Socio Economic Partnerships

Purpose: Form strategic partnerships to contribute to South Africa's transition to a knowledge economy.

Strategic overview: 2007/08 – 2013/14

The Department of Science and Technology derives its mandate from the 1996 White Paper on Science and Technology. As the coordinator for the development of the national system of innovation, the department influences this system through key strategies such as the national research and development strategy and the 10-year innovation plan. The innovation plan seeks in particular to contribute to the transformation of the South African economy into a knowledge based economy, in which the production and dissemination of knowledge will lead to economic benefits and enrich all fields of human endeavour. The measure of success will be the degree to which science and technology play a driving role in enhancing productivity, economic growth and socioeconomic development.

Working towards a knowledge based economy

The national system of innovation can play an important role as the vehicle for the achievement of a knowledge based economy. Since 1996, the Department has put in place several building blocks and interventions to develop and enable the national system of innovation to become functional. Some of the latest interventions include the National Intellectual Property Management Office, the Intellectual Property Rights Act and the Technology Innovation Agency.

Science, technology and innovation underpin the foundations of any modern economy and society, and must play a pivotal role in South Africa's economic recovery from the global downturn and growth, through supporting and strengthening the ability of the state to address poverty and inequality, as well as unemployment and skills shortages. Integrating science, technology and innovation into South Africa's economic base is essential for developing a sustainable, post-industrial knowledge economy that leverages its natural resource base by applying and developing new approaches (that assist in modernising technology). Through the different science councils, the department is positioning itself to work more effectively with industry and universities. These partnerships are aimed at facilitating strategic technology and innovation interventions.

To realise the full potential of science, technology and innovation, South Africa should increase its science and technology innovation investment, as well as improving its ability to convert some of its research and development activities into products and services. Such investment should focus on increased human capital development (especially, in science, technology, engineering and innovation) thereby producing a greater number of skilled individuals, knowledge generation and exploitation, consolidation and establishment of new entities, and on supporting African initiatives and leveraging off international cooperation.

Regional and international cooperation advances science and technology through shared learning. The department's strategies include leading South Africa's engagement in the United Nations (UN) family of science organisations, maximising participation in major summits and international conventions, strengthening South-South partnerships, and accessing international research programmes such as the European Union's (EU) framework programme of research.

Government's outcomes framework and related outputs for the department

In relation to government's 12 outcomes, the department contributes directly to three of the outcomes. The first is creating a skilled and capable workforce to support an inclusive growth path (outcome 5). Related outputs are: establishing a credible institutional mechanism for skills planning (output 1); increasing access to programmes leading to intermediate and high level learning (output 2); increasing access to occupationally directed programmes in needed areas and thereby expanding the availability of intermediate level skills (with a special focus on artisan skills) (output 3); increasing access to high level occupationally directed programmes in needed areas (output 4); and facilitating research, development and innovation in human capital for a growing knowledge economy (output 5). Specific related departmental sub-outputs are: increased access to high level occupationally directed programmes in needed areas; increased human capital for research, development and innovation, for a growing knowledge based economy; increased support to industry-university partnerships; and increase investment in research and development, especially in the science, engineering and technology sector.

The department has already initiated postgraduate funding support (mainly through bursaries) and research support programmes, such as the centres of competence and the South African Research Chairs Initiative and will continue to implement interventions aimed at addressing skills shortages.

The second outcome is creating decent employment through inclusive economic growth (outcome 4). Related outputs are: faster and sustainable inclusive growth; more labour absorbing growth; a multi-prolonged strategy to reduce youth unemployment; increased competitiveness, to raise net exports, grow South Africa's share of world trade and improve its composition; developing targets for improving the country's global competitiveness rating; and increasing the country's expenditure on research and development as a percentage of GDP to reach 1.5 per cent of GDP by 2014. Drawing on previous investments the department will play a key role over the medium term in supporting the development of selected industries in South Africa.

The third outcome is contributing to a long and healthy life for all South Africans (outcome 2). The related output is strengthening the effectiveness of the health system (output 4). Health and health innovations have been a long standing focus of the department. Successful projects have included the piloting of tele-medicine, and the bioeconomy.

Savings and cost effectiveness measures

The department has identified efficiency savings of R31.9 million in 2011/12, R31.5 million in 2012/13 and R33.2 million in 2013/14, and has implemented cost effectiveness measures by reducing ineffective spending on goods and services across all programmes. The department conducted an analysis of areas where savings could be effected and adjusted operational policies in relation to catering, subsistence and travel, and entertainment.

The budget cuts will not impede the department's progress in implementing its mandate. The construction of MeerKAT, will, however, be extended to 2013/14, which is still in time to allow South Africa to compete for the Square Kilometre Array project.

Selected performance indicators

Table 34.1 Science and Technology

Indicator	Programme	Past			Current	Projections		
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number of patents, patents applications and trademarks resulting from policy funded research	Socioeconomic Partnerships	-	-	-	11	19	21	25
Number of companies provided with a technology assistance package per year to facilitate successful participation in infrastructure public procurement process	Socioeconomic Partnerships	-	-	24	24	24	28	30
Total number of postgraduate students supported	Human Capital and Knowledge Systems	5 207	5 060	5 131	5 644	6 600	7 000	7 500
Total number of postgraduate students financially supported	Socioeconomic Partnerships	-	-	-	66	80	99	110
Number of researchers supported financially per year	Human Capital and Knowledge Systems	2 054	2 422	2 442	2 519	2 500	2 550	2 600
Value of foreign funds leveraged per year in support of science, technology and innovation cooperation	International Cooperation and Resources	R94.1m	R189m	R230m	R196.3m	R199.3m	R500m	R600m
Number of technologies in development per year	Research, Development and Innovation	9	13	17	13	9	15	21
Number of households benefiting from technology based inventions per year	Socioeconomic Partnerships	-	-	-	280	300	350	350

Table 34.1 Science and Technology (continued)

Indicator	Programme	Past			Current	Projections		
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number of joint science and technology projects initiated between the Department of Science and Technology and other departments per year	Socioeconomic Partnerships	–	2	6	10	13	14	14
Total number of institutions implementing the research information management system	Socioeconomic Partnerships	–	–	3	15	25	32	34

Expenditure estimates

Table 34.2 Science and Technology

Programme	Audited outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14
R thousand								
Administration	125 346	141 035	159 122	185 683	185 683	192 116	201 979	220 575
Research, Development and Innovation	528 593	852 974	1 141 350	826 848	826 848	854 610	1 112 372	1 272 812
International Cooperation and Resources	95 628	136 314	117 474	135 978	135 978	137 194	145 892	157 196
Human Capital and Knowledge Systems	1 273 781	1 454 698	1 591 357	1 763 964	1 763 964	1 950 427	2 045 547	2 406 335
Socio Economic Partnerships	1 103 932	1 118 447	1 174 554	1 215 510	1 215 510	1 270 271	1 381 566	1 453 176
Total	3 127 280	3 703 468	4 183 857	4 127 983	4 127 983	4 404 618	4 887 356	5 510 094
Change to 2010 Budget estimate				(487 558)	(487 558)	(564 151)	327 107	–
Economic classification								
Current payments	210 699	259 840	284 245	370 089	370 089	369 713	389 625	423 821
Compensation of employees	102 077	141 585	167 488	223 691	223 691	225 251	237 551	259 557
Goods and services	108 622	118 255	116 757	146 398	146 398	144 462	152 074	164 264
<i>of which:</i>								
<i>Administrative fees</i>	5 538	4 537	2 567	4 566	4 566	4 699	4 960	5 219
<i>Advertising</i>	2 082	10 680	4 994	6 327	6 327	3 073	3 205	3 703
<i>Assets less than the capitalisation threshold</i>	164	578	526	429	429	593	626	670
<i>Audit cost: External</i>	781	1 614	2 414	1 432	1 432	1 794	1 868	2 082
<i>Bursaries: Employees</i>	783	1 172	967	1 551	1 551	1 934	2 013	2 240
<i>Catering: Departmental activities</i>	1 249	2 110	1 677	2 536	2 536	2 191	2 315	2 468
<i>Communication</i>	7 093	6 812	8 384	8 221	8 221	8 215	8 669	9 302
<i>Computer services</i>	3 238	3 226	9 307	4 652	4 652	5 125	5 379	5 853
<i>Consultants and professional services: Business and advisory services</i>	34 424	7 599	7 262	16 920	16 920	17 057	18 243	19 492
<i>Consultants and professional services: Legal costs</i>	–	268	189	1 408	1 408	1 028	1 075	1 172
<i>Contractors</i>	3 630	3 173	6 247	6 029	6 029	7 092	7 203	7 854
<i>Agency and support / outsourced services</i>	–	22 414	19 342	24 388	24 388	17 650	18 439	21 258
<i>Entertainment</i>	938	1 217	640	1 341	1 341	6 708	6 834	7 082
<i>Inventory: Fuel, oil and gas</i>	374	35	–	68	68	101	106	116
<i>Inventory: Other consumables</i>	57	358	242	768	768	926	966	1 056
<i>Inventory: Stationery and printing</i>	5 448	3 533	4 519	5 153	5 153	5 042	5 281	5 700
<i>Lease payments</i>	1 958	3 976	3 094	3 229	3 229	3 539	3 742	4 007
<i>Property payments</i>	3	99	1 598	4 411	4 411	4 689	4 973	5 357

Table 34.2 Science and Technology (continued)

R thousand	Audited outcome			Adjusted appropriation 2010/11	Revised estimate	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10			2011/12	2012/13	2013/14
Economic classification								
Current payments								
<i>Transport provided: Departmental activity</i>	-	-	-	(1 037)	(1 037)	-	-	-
<i>Travel and subsistence</i>	32 336	35 714	27 867	41 054	41 054	38 629	41 056	43 325
<i>Training and development</i>	1 653	2 023	5 767	3 336	3 336	4 553	4 729	5 229
<i>Operating expenditure</i>	3 127	4 906	4 025	4 545	4 545	4 757	5 020	5 395
<i>Venues and facilities</i>	3 746	2 211	5 129	5 071	5 071	5 068	5 372	5 683
Transfers and subsidies	2 908 647	3 440 230	3 891 873	3 752 822	3 752 822	4 031 647	4 494 312	5 082 676
Departmental agencies and accounts	1 516 928	1 866 540	2 310 885	2 266 593	2 266 593	2 619 942	2 800 518	3 202 529
Universities and technikons	46 117	69 452	113 447	32 880	32 880	-	-	-
Public corporations and private enterprises	1 023 212	1 075 099	1 183 333	1 002 445	1 002 445	924 764	962 641	1 012 983
Non-profit institutions	322 215	428 439	283 506	450 904	450 904	486 941	731 153	867 164
Households	175	700	702	-	-	-	-	-
Payments for capital assets	7 934	3 322	7 659	5 072	5 072	3 258	3 419	3 597
Machinery and equipment	7 934	3 322	7 659	5 072	5 072	3 258	3 419	3 597
Payments for financial assets	-	76	80	-	-	-	-	-
Total	3 127 280	3 703 468	4 183 857	4 127 983	4 127 983	4 404 618	4 887 356	5 510 094

Expenditure trends

Over the medium term, the spending focus will be on human capital development and knowledge generation and exploitation. The department will continue to invest in initiatives to increase the number and diversity of young people entering and remaining in careers in science and technology. The number of chairs under the South African Research Chairs Initiative will be increased. The initiative is succeeding in contributing to the transformation of South Africa's cohort of scientists. The number of postgraduate students supported by research chair grants will be used as a measure to monitor this objective.

Expenditure increased from R3.1 billion to R4.1 billion, at an average annual rate of 9.7 per cent between 2007/08 and 2010/11. This was mainly due to the substantial allocations for projects in the *Research, Development and Innovation* programme, human capital development initiatives and increases in funding for initiatives such as the South African Research Network, the National Research Foundation in the *Human Capital and Knowledge Systems* programme, the Council for Scientific and Industrial Research, and the Human Science Research Council in the *Socio Economic Partnerships* programme.

Over the medium term, expenditure is expected to increase to R5.5 billion in 2013/14, at an average annual rate of 10.1 per cent. The growth is attributed to additional allocations in the 2011 MTEF Budget for improved conditions of service (R23.6 million), bursaries for postgraduate students (R358.0 million), the establishment of an intellectual property office (R27 million), and the purchase of scientific equipment (R150 million). The rescheduling of funding for the Square Kilometre Array project from 2011/12 to 2012/13 and 2013/14 has also increased expenditure.

The ratio of administrative cost to line function cost in the department is 1:11.5.

Infrastructure spending

In September 2006, South Africa and Australia were shortlisted as suitable sites to host the core of the Square Kilometre Array radio telescope. The announcement of the successful bidding country is expected before the end of 2012. The shortlisted countries are building demonstration telescopes to develop the technology and optimise alignment with the scientific research expectations. The South African demonstration telescope, MeerKAT, is being constructed in two phases. The seven-dish array prototype was completed in 2009/10 and the complete MeerKAT telescope is expected to be fully

assembled by 2013/14. R173 million was spent in 2009/10 on infrastructure, human capital development and completion of the radio telescope array prototype.

The Centre for High Performance Computing and the South African National Research Network are large research, development and innovation infrastructure projects that provide cyber infrastructure for the national system of innovation. The centre is intended to provide high performance computing for research in manipulating and analysing large amounts of complex data and the research network is a high speed network to facilitate access to and sharing of research information and data between researchers locally and internationally. R344.5 million was spent between 2007/08 to 2009/10, R310 million has been allocated to the network over the MTEF period.

The national research infrastructure programmes (such as the national equipment and national nanotechnology equipment programmes) are designed to provide support to individual researchers and institutions to enhance research performance and productivity. Over the MTEF period, R134 million has been allocated to the national nanotechnology centres, while R35 million has been spent to date.

Scientific and technological activities

Government regards investment in research, and scientific and technological activities as an integral part of its transition to a knowledge based economy. It also reflects the extent to which government is modernising and using scientific processes to add value to its operations and service delivery. Expenditure on science and technology activities funded by the Department of Science and Technology increased from R2.9 billion in 2007/08 to R4.2 billion in 2010/11, at an average annual rate of 13.7 per cent. Expenditure is expected to decrease to R3.6 billion over the MTEF period, at an average annual rate of 5.9 per cent due to the reprioritisation of funds.

Table 34.3 Science and technology activities funded by the Department of Science and Technology

R thousand	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Science and technology Innovations (STI)	2 279 254	2 781 818	3 159 576	3 564 283	3 539 954	2 541 259	2 668 322
Scientific and technological Services (STS)	614 828	571 338	599 988	284 144	413 432	433 183	454 842
Scientific and technical education and training (STET)	35 300	49 828	61 548	358 200	453 900	445 900	468 195
Total STAs	2 929 382	3 402 984	3 821 112	4 206 627	4 407 286	3 420 342	3 591 359

Table 34.4 Public institutions that undertake scientific and technological activities which report to the Department of Science and Technology

R thousand	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Academy of Science of South Africa	3 400	5 570	9 893	10 554	11 152	11 710	12 319
Africa Institute of South Africa	26 530	30 464	29 280	30 594	32 440	34 062	35 833
Human Science Research Council	155 949	163 851	166 185	194 293	206 169	216 365	227 616
National Research Foundation	657 699	683 420	692 131	749 142	1 089 035	1 068 156	1 126 087
Council for Scientific and Industrial Research	517 352	554 687	599 384	685 784	687 169	727 491	765 580
South African National Energy Research	42 000	44 268	0	0	0	0	0
Technology Innovation Agency	0	0	0	410 628	433 816	455 196	478 217
South African National Space Agency	0	0	0	0	93 583	95 539	100 247
Tshumisano Trust	49 500	36 600	36 437	0	0	0	0
Total	1 452 430	1 518 860	1 533 310	2 080 995	2 553 364	2 608 519	2 745 899

Personnel information

The number of posts filled increased from 321 in 2007/08 to 421 in 2010/11, and is expected to grow to 470 over the medium term. The growth is attributed to the expansion in the department's activities due to the establishment of new entities and to respond to the economic and social challenges of the country.

There are 41 vacancies within the department, of which 20 are in salary levels 13-15 and 21 are in salary levels 4-12. Most of these vacancies are in the *Administration* programme. These posts remain vacant because of resignations and will be filled early in 2011. The ratio of support staff to line function staff in the department is 1:12.

Departmental receipts

The department's receipts include miscellaneous items such as debt repayments, interests on bank accounts and recovered private telephone costs. Departmental receipts increased from R219 000 in 2007/08 to R385 000 in 2010/11, at an average annual rate of 20.7 per cent. Over the medium term, departmental receipts are expected to decrease to R115 000 in 2013/14, due to a projected decrease in transactions in financial assets and liabilities.

Table 34.5 Departmental receipts

R thousand	Audited outcome			Adjusted estimate	Revised estimate	Medium-term receipts estimate		
	2007/08	2008/09	2009/10	2010/11		2011/12	2012/13	2013/14
Departmental receipts	219	333	1 585	385	683	112	115	115
Sales of goods and services produced by department	24	26	30	17	21	26	27	27
Interest, dividends and rent on land	6	9	3	-	7	7	8	8
Sales of capital assets	110	-	-	-	-	-	-	-
Transactions in financial assets and liabilities	79	298	1 552	368	655	79	80	80
Total	219	333	1 585	385	683	112	115	115

Programme 1: Administration

Table 34.6 Administration

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R thousand							
Ministry ¹	2 056	2 890	3 192	3 312	3 494	3 669	3 853
Management	47 708	56 617	58 208	67 561	72 085	77 372	85 945
Corporate Services	67 474	76 645	90 285	101 828	104 523	108 331	117 608
Governance	3 801	3 444	5 772	9 173	8 022	8 411	8 755
Office Accommodation	4 307	1 439	1 665	3 809	3 992	4 196	4 414
Total	125 346	141 035	159 122	185 683	192 116	201 979	220 575
Change to 2010 Budget estimate				2 751	(1 745)	(1 841)	-

¹ From 2008/09, the current payments relating to the total remuneration package of political office bearers are shown. Before this, only salary and car allowance are included.

Administrative and other subprogramme expenditure may in addition include payments for capital assets as well as transfers and subsidies.

Table 34.6 Administration (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Economic classification							
Current payments	116 918	138 119	151 582	181 138	189 144	198 909	217 346
Compensation of employees	47 413	60 682	82 637	108 351	111 008	116 488	125 719
Goods and services	69 505	77 437	68 945	72 787	78 136	82 421	91 627
<i>of which:</i>							
<i>Administrative fees</i>	5 142	4 322	1 942	4 121	4 347	4 594	4 832
<i>Advertising</i>	1 309	8 930	2 585	5 049	2 031	2 102	2 553
<i>Assets less than the capitalisation threshold</i>	99	522	438	331	451	475	518
<i>Audit cost: External</i>	781	1 614	1 964	1 432	1 794	1 868	2 082
<i>Bursaries: Employees</i>	639	1 172	967	1 526	1 912	1 991	2 218
<i>Catering: Departmental activities</i>	370	1 082	751	991	1 142	1 202	1 315
<i>Communication</i>	4 037	3 289	4 758	4 102	4 805	5 070	5 528
<i>Computer services</i>	2 238	3 033	8 194	4 149	4 489	4 726	5 172
<i>Consultants and professional services: Business and advisory services</i>	27 395	6 818	3 564	8 185	9 009	9 531	10 341
<i>Consultants and professional services: Legal costs</i>	–	268	189	480	601	626	698
<i>Contractors</i>	3 619	2 540	5 441	5 195	5 343	5 580	6 188
<i>Agency and support / outsourced services</i>	–	16 815	9 409	4 207	4 894	5 143	7 362
<i>Entertainment</i>	501	563	247	461	492	523	563
<i>Inventory: Fuel, oil and gas</i>	373	35	–	68	101	106	116
<i>Inventory: Other consumables</i>	45	178	220	501	680	710	788
<i>Inventory: Stationery and printing</i>	2 761	1 561	2 480	2 516	3 004	3 146	3 474
<i>Lease payments</i>	1 255	3 059	2 200	2 169	2 419	2 554	2 779
<i>Property payments</i>	–	3	1 417	4 013	4 304	4 568	4 930
<i>Transport provided: Departmental activity</i>	–	–	–	(1 037)	–	–	–
<i>Travel and subsistence</i>	14 955	15 834	11 617	16 385	17 017	18 137	19 437
<i>Training and development</i>	1 281	2 005	5 711	3 265	4 103	4 273	4 761
<i>Operating expenditure</i>	2 021	3 055	3 277	2 952	3 348	3 534	3 852
<i>Venues and facilities</i>	684	739	1 574	1 726	1 850	1 962	2 120
Transfers and subsidies	1 434	649	1 005	1 000	1 000	1 000	1 051
Universities and technikons	746	49	135	–	–	–	–
Non-profit institutions	550	600	418	1 000	1 000	1 000	1 051
Households	138	–	452	–	–	–	–
Payments for capital assets	6 994	2 195	6 458	3 545	1 972	2 070	2 178
Machinery and equipment	6 994	2 195	6 458	3 545	1 972	2 070	2 178
Payments for financial assets	–	72	77	–	–	–	–
Total	125 346	141 035	159 122	185 683	192 116	201 979	220 575

Table 34.6 Administration (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Details of transfers and subsidies							
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Households							
Households social benefits							
Current	138	-	452	-	-	-	-
Households	138	-	452	-	-	-	-
Universities and technikons							
Current	746	49	135	-	-	-	-
Institutional and Programme Support	746	49	135	-	-	-	-
Households							
Households other transfers							
Current	-	-	-	-	-	-	-
Gifts and donations	-	-	-	-	-	-	-
Non-profit institutions							
Current	550	600	418	1 000	1 000	1 000	1 051
Institutional and Programme Support	550	600	418	1 000	1 000	1 000	1 051

Expenditure trends

Expenditure increased from R125.3 million in 2007/08 to R185.7 million in 2010/11, at an average annual rate of 14 per cent. This is attributed to the expansion of the information management unit, internal audit services, as well as the creation of administrative support for deputy directors general.

Expenditure is expected to increase to R220.6 million over the MTEF period, at an average annual rate of 5.9 per cent. The increase is attributed to inflationary adjustments to spending in compensation of employees and on goods and services.

Programme 2: Research, Development and Innovation

- *Space Science* formalises the national space programme to bring coherence in leveraging the benefits of space science and technology in addressing socioeconomic challenges. This entails developing space applications, products and services that respond to the needs of end users across all tiers of government. The subprogramme has a total budget of R904 million over the medium term. An average annual allocation of 96 per cent of the budget is allocated to the South African National Space Agency (33 per cent) and the Square Kilometre Array project (63 per cent). The personnel number assigned to this subprogramme is to remain stable over the medium term, at 11.
- *Hydrogen and Energy* addresses the technological capabilities that will support government objectives to ensure universal access to modern energy services, energy security to support economic growth, and environmental protection. The total allocation over the medium term is R446 million, with 6 per cent going to the administrative functions. The number of personnel in this subprogramme is expected to grow from 10 in 2011/12 to 11 in 2012/13 and 2013/14. The department is making progress in hydrogen and fuel cell technologies research, and development and innovation strategy objectives. The focus in 2011/12 will once again be on the development of the hydrogen strategy catalysis and hydrogen strategy systems centres of competence, to facilitate human capacity development, capital acquisitions, and the undertaking of projects. Over the MTEF period, R94 million has been allocated to the hydrogen strategy, where R29 million has been spent from 2007/08 to 2009/10.
- *Biotechnology and Health* provides policy leadership for developing a worldclass bioeconomy in South Africa. This will be achieved through strengthening the bioeconomy value chain to ensure the effective translation of life science research into innovative products and services. This subprogramme has a total budget of R395 million, of which 32 per cent is used for health innovation research and 41 per cent is

allocated for implementing the biotechnology strategy and health innovation activities. The number of personnel in this sub-programme is expected to remain constant at 12 over the medium term. The focus in 2011/12 for health motivation and biotechnology will be to increase the number and quality of South African developed products and services for the prevention and treatment of HIV and AIDS through increased support for basic and applied research in the areas of antiretrovirals, microbicides, vaccines and diagnostics.

- *Innovation Planning and Instruments* drives strategic interventions and creates support instruments which enable the national system of innovation to translate a greater portion of its research and development and intellectual property into diversified products, services, spin offs and new industries. The total budget over the medium term is R1.5 billion. 95 per cent of the subprogramme's budget is an allocation to the activities of the Technology Innovation Agency. The number of personnel in this subprogramme is expected to remain constant at 27 over the medium term. The implementation of the Technology Innovation Agency and the Intellectual Property Rights Act (2008) will support the commercialisation of locally developed technologies, and provide a sound management system for intellectual property developed using public money.

Objectives and measures

- Ensure that the competence of human capital in the space, energy, biosciences and innovation focus areas is at a level that can respond adequately to national strategic needs, through producing technically competent graduates, by:
 - funding programmes that will train people to PhD level
 - establishing research chairs and centres of competence
 - stimulating young people's interest in the sector through public awareness campaigns.
- Support the national space programme by:
 - finalising the establishment of the space agency
 - strengthening international cooperation by entering into bilateral agreements
 - monitoring the quality of response to the national space programme imperatives.
- Facilitate the development and launch of products and services from space applications by:
 - commissioning science councils and universities
 - establishing centres of competence
 - increasing the number of requests to the recently established Space Agency for datasets for research and development and decision making from 3 000 in 2010/11 to 4 000 in 2011/12
 - creating intergovernmental and multi-stakeholder platforms for space science and technology innovation, thus enhancing collaborative efforts
 - establishing a space forum before the end of 2010/11 that will coordinate inputs from across government to ensure that the national space programme remains relevant to government's needs.
- Grow and strengthen South Africa's bioeconomy through the bioeconomy strategy by reviewing and evaluating existing biotechnology and health innovation instruments and institutions (policies, organizations, business models, and so on) and reconfiguring institutional arrangements by March 2011.
- Support a globally competitive South African energy industry, which will in turn ensure universal access to modern energy services for all South Africans, support sustainable economic growth, and contribute to the protection of the environment, by achieving advanced technological capabilities.

Expenditure estimates

Table 34.7 Research, Development and Innovation

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R thousand							
Space Science	147 990	340 999	575 166	102 847	116 298	336 146	451 315
Hydrogen and Energy	39 084	139 650	146 755	132 321	142 373	147 887	155 500
Biotechnology and Health	193 463	228 447	253 907	155 193	124 261	131 460	139 379
Innovation Planning and Instruments	148 056	143 878	165 522	436 487	471 678	496 879	526 618
Total	528 593	852 974	1 141 350	826 848	854 610	1 112 372	1 272 812
Change to 2010 Budget estimate				(457 192)	(486 564)	286 172	-
Economic classification							
Current payments	14 937	23 508	32 510	46 623	54 323	53 924	57 510
Compensation of employees	8 823	13 572	17 136	25 713	31 676	31 067	33 720
Goods and services	6 114	9 936	15 374	20 910	22 647	22 857	23 790
<i>of which:</i>							
<i>Administrative fees</i>	153	70	116	112	96	100	107
<i>Advertising</i>	260	843	956	442	346	364	365
<i>Assets less than the capitalisation threshold</i>	14	15	17	47	92	94	97
<i>Audit cost: External</i>	-	-	450	-	-	-	-
<i>Bursaries: Employees</i>	49	-	-	25	22	22	22
<i>Catering: Departmental activities</i>	47	180	181	229	167	179	175
<i>Communication</i>	416	634	789	689	504	519	529
<i>Computer services</i>	451	38	240	175	345	350	360
<i>Consultants and professional services: Business and advisory services</i>	144	319	51	962	831	853	877
<i>Consultants and professional services: Legal costs</i>	-	-	-	528	-	-	-
<i>Contractors</i>	1	173	585	192	1 007	828	843
<i>Agency and support / outsourced services</i>	-	1 761	5 798	11 515	8 518	8 838	9 199
<i>Entertainment</i>	91	155	20	38	5 419	5 465	5 633
<i>Inventory: Other consumables</i>	-	10	1	70	61	63	64
<i>Inventory: Stationery and printing</i>	287	520	430	606	402	413	423
<i>Lease payments</i>	82	82	195	93	252	257	264
<i>Property payments</i>	3	-	1	-	-	-	-
<i>Travel and subsistence</i>	3 276	4 917	4 408	4 484	3 599	3 498	3 799
<i>Training and development</i>	280	-	56	71	450	456	468
<i>Operating expenditure</i>	45	86	442	300	259	273	273
<i>Venues and facilities</i>	515	133	638	332	277	285	292
Transfers and subsidies	513 384	829 262	1 108 500	779 851	800 067	1 058 217	1 215 059
Departmental agencies and accounts	302 962	458 526	739 015	485 215	632 221	661 142	699 343
Universities and technikons	16 314	54 149	82 853	27 900	-	-	-
Public corporations and private enterprises	49 682	32 556	103 423	12 773	-	-	-
Non-profit institutions	144 426	283 681	183 209	253 963	167 846	397 075	515 716
Households	-	350	-	-	-	-	-
Payments for capital assets	272	203	340	374	220	231	243
Machinery and equipment	272	203	340	374	220	231	243
Payments for financial assets	-	1	-	-	-	-	-
Total	528 593	852 974	1 141 350	826 848	854 610	1 112 372	1 272 812

Table 34.7 Research, Development and Innovation (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Details of transfers and subsidies							
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Current	222 962	194 262	246 790	485 215	632 221	661 142	699 343
Biotechnology Strategy	37 500	2 000	50 383	-	-	-	-
Energy Grand Challenge	-	-	500	23 076	44 495	46 720	49 149
Health Innovation	65	-	15 978	-	-	-	-
Hydrogen Strategy	-	8 680	11 700	-	-	-	-
Innovation Projects	-	-	7 000	10 781	17 912	21 187	27 019
Innovation Fund	141 818	140 000	149 229	-	-	-	-
International Centre for Genetic Engineering and Biotechnology	10 000	-	-	9 900	9 900	10 395	10 936
Space Science	-	18 086	-	-	-	-	-
Square Kilometer Array	25 512	25 496	12 000	12 624	13 217	11 842	12 458
Technology Innovation Agency	-	-	-	410 628	433 816	455 196	478 217
HIV and Aids Prevention and Treatment Technologies	8 067	-	-	18 206	19 298	20 263	21 317
South African National Space Agency	-	-	-	-	93 583	95 539	100 247
Capital	80 000	264 264	492 225	-	-	-	-
Space Science	-	-	1 932	-	-	-	-
Square Kilometer Array	80 000	264 264	490 293	-	-	-	-
Universities and technikons							
Current	10 414	15 391	38 624	27 900	-	-	-
Biofuels	1 500	-	-	-	-	-	-
Biotechnology Strategy	-	200	3 976	-	-	-	-
Energy Grand Challenge	-	-	328	18 900	-	-	-
Health Innovation	192	-	-	-	-	-	-
Hydrogen Strategy	6 000	10 000	31 843	9 000	-	-	-
Space Science	2 722	5 191	2 477	-	-	-	-
Capital	5 900	38 758	44 229	-	-	-	-
Hydrogen Strategy	3 000	38 758	44 229	-	-	-	-
Space Science	2 900	-	-	-	-	-	-
Households							
Households other transfers							
Current	-	350	-	-	-	-	-
Households	-	350	-	-	-	-	-
Non-profit institutions							
Current	141 426	283 681	183 209	158 397	115 943	123 839	130 277
Biofuels	-	5 000	5 000	5 000	5 300	5 565	5 854
Biotechnology Strategy	124 222	175 257	123 946	75 984	37 771	42 758	44 981
Energy Grand Challenge	-	44 268	5 000	-	-	-	-
Health Innovation	6 242	14 500	17 570	37 872	39 652	41 635	43 800
Hydrogen Strategy	9 926	18 000	800	13 638	30 356	30 874	32 479
Innovation Projects	-	-	3 000	-	-	-	-
International Centre for Genetic Engineering and Biotechnology	-	10 000	9 930	-	-	-	-
Space Science	1 036	55	735	25 903	-	-	-
Technology Top 100	-	-	-	-	2 864	3 007	3 163
HIV and Aids Prevention and Treatment Technologies	-	16 601	17 228	-	-	-	-

Table 34.7 Research, Development and Innovation (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Capital	3 000	-	-	95 566	51 903	273 236	385 439
Hydrogen Strategy	3 000	-	-	48 361	51 903	54 498	57 332
Space Science	-	-	-	47 205	-	-	-
Square Kilometer Array	-	-	-	-	-	218 738	328 107
Public corporations and private enterprises							
Public corporations							
Other transfers to public corporations							
Current	28 582	16 615	69 423	8 588	-	-	-
Biofuels	3 000	-	-	-	-	-	-
Biotechnology Strategy	-	50	1 699	-	-	-	-
Energy Grand Challenge	-	-	34 000	-	-	-	-
Health Innovation	2 500	1 000	2 000	-	-	-	-
Hydrogen Strategy	4 650	8 750	6 597	6 000	-	-	-
Innovation Projects	4 600	-	-	-	-	-	-
Innovation Fund	-	-	2 000	-	-	-	-
Space Science	13 832	6 815	23 127	2 588	-	-	-
Capital	21 100	15 941	34 000	4 185	-	-	-
Hydrogen Strategy	4 000	1 742	-	-	-	-	-
Space Science	17 100	14 199	34 000	4 185	-	-	-

Expenditure trends

The spending focus over the medium term will be on the Technology Innovation Agency, with an allocation of R1.4 billion over the MTEF period to achieve the technological innovation strategic objective.

Expenditure increased from R528.6 million in 2007/08 to R826.8 million in 2010/11, at an average annual rate of 16.1 per cent. The increase is ascribed to the introduction of programmes that bolster the bioeconomy, renewable energy, space science and innovation instruments initiatives. The 82.1 per cent decrease in 2010/11 in the *Space Science* was due to the capital budget being reduced by R508 million for the Square Kilometre Array project, due to refinements in the design of the dishes. These refinements are meant to strengthen south Africa's bid for the Square Kilometre Array.

Over the medium term, expenditure is expected to increase to R1.3 billion in 2013/14, at an average annual rate of 15.5 per cent. The increase is mainly due to a rescheduling of the funding for the Square Kilometre Array project from 2011/12, to 2012/13 and 2013/14.

The ratio of administrative costs to line function costs in this programme is 1:57.8.

Programme 3: International Cooperation and Resources

- *Multilateral Cooperation and Africa* advances and facilitates South Africa's participation in strategic bilateral and multilateral engagements on science, technology and innovation to support the national system of innovation and to achieve shared economic and social development in the region and the continent. The total budget over the medium term is R191 million. These activities take up 42 per cent of the subprogramme's budget, the Africa Institute of South Africa take up 54 per cent and the remaining 4 per cent is for administrative functions. The subprogramme has a staff complement of 20 for 2011/12 and is expected to grow to 23 in 2012/13 and 2013/14. Maximising South Africa's participation in implementing the outcomes of major summits and international conventions at national, regional and international levels through the implementation of a new international cooperation strategy, these

relationships will be realigned to address the major challenges and associated crosscutting imperatives set out in the 10-year innovation plan and the national research and development strategy.

- *International Resources* leverages funding, human capital and knowledge; promotes the hosting of global research infrastructures in South Africa, and facilitates access to international research facilities to benefit researchers within the national system of innovation. The subprogramme's budget over the MTEF period is R151 million, while the cost-driving activities aimed at advancing these activities are transfer payments and goods and services, which take up 54 per cent and 22 per cent respectively. The total staff complement assigned for the subprogramme's activities is expected to grow from 20 in 2011/12 to 22 in 2012/13 and 2013/14. The subprogramme attracts foreign direct investment expertise and knowledge into the science system, and enlarges research and innovation networks through functional strategic multilateral partnerships to meet its objective of strengthening developmental partnerships to attract official development aid for science and technology in South Africa and Africa.
- *Overseas Bilateral Cooperation* promotes and facilitates collaborative activities and leverages resources in support of the national system of innovation from countries outside Africa, with a specific focus on developing a knowledge driven economy. The subprogramme consists of two units: the unit for Europe and the Gulf, and the unit for Asia and the Americas. The subprogramme has a total budget over the medium term of R98 million. These activities take up 36 per cent of the programme's budget and related goods and services take up 26 per cent. The personnel number assigned to this subprogramme is expected to grow from 20 in 2011/12 to 23 in 2012/13 and 2013/14. The subprogramme is focusing on a number of joint research projects, including those within the India-Brazil-South Africa framework in areas such as nanotechnology, biotechnology, and polar and oceanographic research.

Objectives and measures

- Stimulate international technology transfer and knowledge production and enhance innovation in pursuit of research led socioeconomic development by increasing the leveraging off foreign science, technology and innovation funds to R1.533 million by March 2012 and R4.318 million by March 2014.
- Facilitate the scientific, technical and socioeconomic development of regional and continental partners to enhance economic relations and regional integration by increasing South African and foreign funds spent on science and technology based socioeconomic development in Africa to R32.3 million by March 2012 and a total of R101.3 million by March 2014.
- Increase access to global knowledge and to science, technology and innovation networks, through international bilateral agreements, to facilitate international technology transfer and a competent and equitable pool of science, engineering and technology skills to support the national system of innovation.
- Promote the involvement of the next generation of researchers in the international knowledge network by increasing the number of South African students participating in international cooperative science, technology and innovation research projects, thus contributing to the development of a skilled future workforce able to promote South Africa's national system of innovation.

Expenditure estimates

Table 34.8 International Cooperation and Resources

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R thousand							
Multilateral Cooperation and Africa	44 890	57 194	54 601	56 780	59 955	63 458	67 446
International Resources	31 754	42 163	39 238	49 260	47 212	50 632	53 273
Overseas Bilateral Cooperation	18 984	36 957	23 635	29 938	30 027	31 802	36 477
Total	95 628	136 314	117 474	135 978	137 194	145 892	157 196
Change to 2010 Budget estimate				867	(5 898)	(2 590)	-

Table 34.8 International Cooperation and Resources (continued)

R thousand	Audited outcome			Adjusted appropriation 2010/11	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10		2011/12	2012/13	2013/14
Economic classification							
Current payments	36 330	48 936	41 596	58 194	55 308	61 532	68 450
Compensation of employees	19 850	30 393	27 915	34 145	30 531	35 467	40 959
Goods and services	16 480	18 543	13 681	24 049	24 777	26 065	27 491
<i>of which:</i>							
<i>Administrative fees</i>	114	60	275	118	118	124	129
<i>Advertising</i>	103	404	296	390	373	393	415
<i>Assets less than the capitalisation threshold</i>	28	10	9	43	43	45	47
<i>Bursaries: Employees</i>	25	-	-	-	-	-	-
<i>Catering: Departmental activities</i>	575	362	414	372	368	387	408
<i>Communication</i>	1 228	1 272	1 165	1 555	1 508	1 587	1 674
<i>Computer services</i>	5	54	313	130	132	138	146
<i>Consultants and professional services: Business and advisory services</i>	3 231	238	2	210	208	219	231
<i>Consultants and professional services: Legal costs</i>	-	-	-	400	427	449	474
<i>Contractors</i>	8	347	2	266	453	476	502
<i>Agency and support / outsourced services</i>	-	2 883	923	3 677	3 920	4 124	4 349
<i>Entertainment</i>	316	452	194	736	724	762	804
<i>Inventory: Fuel, oil and gas</i>	1	-	-	-	-	-	-
<i>Inventory: Other consumables</i>	11	139	2	173	166	174	183
<i>Inventory: Stationery and printing</i>	803	454	357	614	611	642	678
<i>Lease payments</i>	336	540	433	568	548	576	608
<i>Property payments</i>	-	96	180	398	385	405	427
<i>Travel and subsistence</i>	7 180	8 605	6 885	11 388	11 497	12 095	12 757
<i>Training and development</i>	47	17	-	-	-	-	-
<i>Operating expenditure</i>	649	1 587	215	895	852	897	946
<i>Venues and facilities</i>	1 820	1 023	2 016	2 116	2 445	2 572	2 712
Transfers and subsidies	59 014	86 913	75 642	77 272	81 372	83 821	88 179
Departmental agencies and accounts	27 349	44 265	42 793	33 771	32 440	34 062	35 833
Universities and technikons	4 526	2 763	3 805	3 580	-	-	-
Public corporations and private enterprises	22 749	34 344	26 938	6 702	-	-	-
Non-profit institutions	4 367	5 541	2 106	33 219	48 932	49 759	52 346
Households	23	-	-	-	-	-	-
Payments for capital assets	284	465	236	512	514	539	567
Machinery and equipment	284	465	236	512	514	539	567
Total	95 628	136 314	117 474	135 978	137 194	145 892	157 196
Details of transfers and subsidies							
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Current	27 349	44 265	42 793	33 771	32 440	34 062	35 833
Africa Institute of South Africa	26 530	30 464	29 280	30 594	32 440	34 062	35 833
Global Science - Bilateral Cooperation	629	12 900	7 734	1 200	-	-	-
Global Science - International Resources	190	401	3 329	855	-	-	-

Table 34.8 International Cooperation and Resources (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Global Science - Multilaterals and Africa	-	500	2 450	1 122	-	-	-
Universities and technikons							
Current	4 526	2 763	3 805	3 580	-	-	-
Global Science - International Resources	3 026	1 557	1 305	2 080	-	-	-
Global Science - Multilaterals and Africa	1 500	1 206	2 500	1 500	-	-	-
Households							
Households other transfers							
Current	23	-	-	-	-	-	-
Gifts and donations	23	-	-	-	-	-	-
Non-profit institutions							
Current	4 367	5 541	2 106	33 219	48 932	49 759	52 346
Global Science - Bilateral Cooperation	3 350	799	-	10 000	11 500	11 600	12 203
Global Science - International Resources	227	592	1 706	19 491	26 132	26 759	28 150
Global Science - Multilaterals and Africa	790	4 150	400	3 728	11 300	11 400	11 993
Public corporations and private enterprises							
Public corporations							
Other transfers to public corporations							
Current	22 749	34 344	26 938	6 702	-	-	-
Global Science - Bilateral Cooperation	500	6 324	1 266	-	-	-	-
Global Science - International Resources	16 639	21 051	20 672	2 480	-	-	-
Global Science - Multilaterals and Africa	5 610	6 969	5 000	4 222	-	-	-

Expenditure trends

The spending focus over the medium term will be on advancing and facilitating South Africa's participation in strategic bilateral and multilateral agreements, and leveraging off resources that support the national systems of innovation through global science initiatives.

Expenditure increased from R95.6 million in 2007/08 to R136 million in 2010/11, at an average annual rate of 12.5 per cent. The increase in 2008/09 is attributable to the expansion of projects aimed at strengthening bilateral and multilateral cooperation and leveraging off international resources.

Over the medium term, expenditure is expected to increase to R157.2 million in 2013/14, at an average annual rate of 5 per cent for inflationary adjustment.

The ratio of administrative costs to line function costs in this programme is 1:1.3.

Programme 4: Human Capital and Knowledge Systems

- *Human Capital and Science Platforms* formulates and implements programmes that address the availability of human capital for science, technology and innovation; and ensures the production of new knowledge to build South Africa's knowledge resources. This entails: promoting science and technology to the youth through a range of programmes; encouraging the production of a new generation of researchers by supporting postgraduate studies through bursaries and fellowships; supporting emerging researchers, with a particular emphasis on black researchers younger than 45 at universities and science councils; and supporting and maximising the output of actively established researchers to ensure that they produce the required knowledge and innovation outputs; and supervise the next generation of researchers. The cost-driver in this sub-programme is transfer payments, which take up 99 per cent of the sub-programme's budget. The average annual allocation to the National

Research Foundation takes up 72 per cent of the subprogramme's budget and 27 per cent covers the other initiatives. The personnel in this subprogramme is expected to grow from 12 in 2011/12 to 15 in 2012/13 and 2013/14, while the budget over the MTEF period is R4.6 billion.

- *Indigenous Knowledge Systems* focuses on developing indigenous knowledge and integrating it into the national system of innovation by developing and integrating policy, and undertaking strategic projects through the national indigenous knowledge systems office. Key initiatives include: improving the protection of indigenous knowledge systems innovations through the implementation of the Intellectual Property Law Amendment Bill; improved management of indigenous knowledge through a national record system through the establishment of the Indigenous Knowledge System documentation centres. These activities take up 68 per cent of the subprogramme's allocation of R87 million over the MTEF period. The subprogramme's staff complement is expected to remain unchanged over the medium term, at 12.
- *Emerging Research Areas and Infrastructure* steers the advancement of novel and cross cutting research areas and the establishment of world-class research infrastructure in the national system of innovation. With a budget of R1.7 billion over the MTEF period, 99.6 per cent is allocated to: infrastructure (49 per cent); the Centre for High Performance Computing (25.3 per cent); the South African National Research Network (17.7 per cent) and the national nanotechnology centres (7.6 per cent). The subprogramme's staff complement is expected to remain unchanged over the medium term, at 10. The subprogramme has identified nanotechnology, synthetic biology and robotics research as new and emerging research areas for development, with nanotechnology being the most developed to date. The national nanotechnology centres have been allocated a budget of R134 million over the MTEF period to equip these centres. The subprogramme also provides national research, development and innovation infrastructure, such as cyber infrastructure in the form of broadband connectivity and high performance computing, as well as research equipment to researchers. The South African National Research Network project has been allocated R310 million over the MTEF period.

Objectives and measures

- Promote science and technology to the youth by providing a range of programmes, supporting emerging researchers, and supporting and maximising the output of active established researchers, thus contributing to the development of high level human capital for research, development and innovation for the national system of innovation.
- Promote and enhance research productivity by providing grants that enable researchers to conduct and publish research, register patents and generally increase their research outputs, thus improving South Africa's research compositeness and contributing to tackling the socioeconomic needs of the country
- Enhance research productivity and the development of human capital through ensuring the availability of appropriate infrastructure (such as cyber infrastructure, research equipment and specialised facilities) for research, development and innovation.
- Ensure that South Africa is able to protect and use indigenous knowledge for the benefit of the country and indigenous knowledge holders through promoting and developing research, development and innovation in the indigenous knowledge system.

Expenditure estimates

Table 34.9 Human Capital and Knowledge Systems

Subprogramme	Audited outcome			Adjusted	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	appropriation	2011/12	2012/13	2013/14
R thousand				2010/11			
Human Capital and Science Platforms	944 539	1 061 963	1 119 136	1 248 814	1 395 844	1 443 212	1 722 980
Indigenous Knowledge Systems	10 508	12 122	23 525	27 551	27 132	28 437	31 241
Emerging Research Areas and Infrastructure	318 734	380 613	448 696	487 599	527 451	573 898	652 114
Total	1 273 781	1 454 698	1 591 357	1 763 964	1 950 427	2 045 547	2 406 335
Change to 2010 Budget estimate				15 293	(4 700)	111 599	-
Economic classification							
Current payments	19 862	21 463	25 689	36 837	26 221	27 319	30 503
Compensation of employees	11 869	14 964	18 112	23 390	19 743	20 568	23 483
Goods and services	7 993	6 499	7 577	13 447	6 478	6 751	7 020
<i>of which:</i>							
<i>Administrative fees</i>	50	43	168	95	41	38	40
<i>Advertising</i>	258	196	638	84	32	33	34
<i>Assets less than the capitalisation threshold</i>	3	26	18	2	2	2	2
<i>Bursaries: Employees</i>	37	-	-	-	-	-	-
<i>Catering: Departmental activities</i>	90	285	189	656	282	292	303
<i>Communication</i>	638	788	888	829	558	580	602
<i>Computer services</i>	169	98	209	131	105	108	113
<i>Consultants and professional services: Business and advisory services</i>	1 038	128	195	439	473	492	511
<i>Contractors</i>	1	1	189	234	176	184	191
<i>Agency and support / outsourced services</i>	-	274	429	4 223	265	275	287
<i>Entertainment</i>	15	18	164	43	22	23	23
<i>Inventory: Other consumables</i>	-	31	1	18	14	14	15
<i>Inventory: Stationery and printing</i>	1 264	719	1 055	1 054	776	808	838
<i>Lease payments</i>	134	147	117	187	150	155	160
<i>Travel and subsistence</i>	3 509	3 394	2 581	4 596	3 141	3 288	3 423
<i>Training and development</i>	40	-	-	-	-	-	-
<i>Operating expenditure</i>	254	134	58	361	268	278	290
<i>Venues and facilities</i>	493	217	678	495	173	181	188
Transfers and subsidies	1 253 874	1 433 015	1 565 430	1 726 892	1 924 095	2 018 112	2 375 710
Departmental agencies and accounts	936 105	1 090 088	1 239 527	1 376 654	1 550 222	1 634 847	1 972 516
Universities and technikons	8 270	5 761	18 524	1 400	-	-	-
Public corporations and private enterprises	259 852	262 109	260 019	186 116	104 710	99 946	105 143
Non-profit institutions	49 647	74 707	47 110	162 722	269 163	283 319	298 051
Households	-	350	250	-	-	-	-
Payments for capital assets	45	217	238	235	111	116	122
Machinery and equipment	45	217	238	235	111	116	122
Payments for financial assets	-	3	-	-	-	-	-
Total	1 273 781	1 454 698	1 591 357	1 763 964	1 950 427	2 045 547	2 406 335

Table 34.9 Human Capital and Knowledge Systems (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Details of transfers and subsidies							
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Current	886 105	959 088	1079 159	1171 139	1312 596	1355 340	1631 075
Technology Top 100	–	–	2 500	–	–	–	–
Emerging Research Areas	–	–	17 000	–	–	–	–
Frontier Science and Technology	20 500	–	–	–	–	–	–
Human Resources Development	169 429	227 035	273 322	352 629	159 450	220 067	434 381
Indigenous Knowledge System	1 550	1 250	11 310	130	–	–	–
National Research Foundation	657 699	683 420	692 131	749 142	1089 035	1068 156	1126 087
Science and Youth	2 631	2 190	20 691	6 500	–	–	–
Science Themes	34 296	45 193	57 739	59 709	64 111	67 117	70 607
Learnerships	–	–	4 466	3 029	–	–	–
Capital	50 000	131 000	160 368	205 515	237 626	279 507	341 441
Frontier Science and Technology	–	11 500	–	–	–	–	–
Research and Development Infrastructure	50 000	119 500	160 368	205 515	237 626	279 507	341 441
Universities and technikons							
Current	8 270	5 761	5 948	1 400	–	–	–
Technology Top 100	–	–	100	–	–	–	–
Emerging Research Areas	–	–	1 900	–	–	–	–
Frontier Science and Technology	–	500	–	–	–	–	–
Human Resources Development	6 352	58	78	–	–	–	–
Indigenous Knowledge System	1 200	2 600	3 420	1 400	–	–	–
Science and Youth	400	2 603	200	–	–	–	–
Science Themes	18	–	–	–	–	–	–
Women in Science	300	–	250	–	–	–	–
Capital	–	–	12 576	–	–	–	–
Research and Development Infrastructure	–	–	12 576	–	–	–	–
Households							
Households other transfers							
Current	–	350	250	–	–	–	–
Indigenous Knowledge System	–	–	50	–	–	–	–
Science Themes	–	–	50	–	–	–	–
Women in Science	–	350	150	–	–	–	–
Non-profit institutions							
Current	49 647	72 907	47 110	124 385	146 640	154 670	162 712
Technology Top 100	2 417	2 280	–	2 735	–	–	–
Centre for High Performance Computing	–	–	–	–	1 847	1 939	2 040
Emerging Research Areas	–	–	–	48 925	55 551	58 179	61 204
Human Resources Development	10 540	16 078	5 592	–	–	–	–
Indigenous Knowledge System	1 000	–	10	15 077	18 726	19 660	20 682
Science and Youth	24 978	40 794	30 434	46 659	59 364	63 182	66 467
Science Themes	7 312	1 545	1 181	–	–	–	–
Women in Science	–	–	–	435	–	–	–
Academy of Science of South Africa: Contribution to operations	3 400	5 570	9 893	10 554	11 152	11 710	12 319
Learnerships	–	6 640	–	–	–	–	–

Table 34.9 Human Capital and Knowledge Systems (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Capital	–	1 800	–	38 337	122 523	128 649	135 339
Centre for High Performance Computing	–	–	–	–	80 123	84 129	88 504
National Nanotechnology Centres	–	–	–	38 337	42 400	44 520	46 835
Research and Development Infrastructure	–	1 800	–	–	–	–	–
Public corporations and private enterprises							
Public corporations							
Other transfers to public corporations							
Current	97 852	153 909	101 355	3 323	–	–	–
Centre for High Performance Computing	–	–	61 349	1 623	–	–	–
Emerging Research Areas	–	–	30 399	–	–	–	–
Frontier Science and Technology	83 000	132 450	–	–	–	–	–
Human Resources Development	9 590	20 539	6 188	–	–	–	–
Indigenous Knowledge System	450	920	1 139	500	–	–	–
Science and Youth	–	–	–	1 200	–	–	–
Science Themes	1 700	–	–	–	–	–	–
Learnerships	3 112	–	2 280	–	–	–	–
Capital	162 000	108 200	158 664	182 793	104 710	99 946	105 143
Centre for High Performance Computing	–	–	1 414	70 397	–	–	–
National Nanotechnology Centres	–	–	34 905	–	–	–	–
Research and Development Infrastructure	–	19 200	28 871	13 613	–	–	–
South African National Research Network	162 000	89 000	93 474	98 783	104 710	99 946	105 143

Expenditure trends

The spending focus over the medium term will continue to be on increasing South Africa's human capital in research, development and innovation, as well as supporting research infrastructure and scientific equipment that sponsor high quality research and supervision of postgraduate students.

Expenditure increased from R1.3 billion to R1.8 billion between 2007/08 and 2010/11, at an average annual rate of 11.5 per cent. The main area of expenditure was in human capital development, mainly to support researchers conducting research and producing research outputs, and students pursuing postgraduate studies at honours, masters, doctoral and postdoctoral level. These activities are managed by the National Research Foundation, which explains the transfer payments over this period. In addition, spending on research and development infrastructure and cyber infrastructure, which include the Centre for High Performance Computing and the South African Research Network, also increased spending.

Over the medium term, expenditure is expected to increase to R2.4 billion in 2013/14, at an average annual rate of 10.9 per cent. The increase is due to additional allocations for: increasing South Africa's human capital in research, development and innovation; and supporting research infrastructure and scientific equipment that support high quality research and supervision of postgraduate students. The National Research Foundation's baseline allocation also increases by R299.9 million in 2011/12, R298.3 million in 2012/13 and R316.2 million in 2013/14, as a result of a policy decision to incorporate funding for a number of department initiated programmes such as the South African Research Chairs Initiative into the Foundation's baseline.

The ratio of administrative costs to line function costs in this programme is 1:75.9.

Programme 5: Socio Economic Partnerships

- *Science and Technology for Economic Impact* advances government's strategic economic growth and sector development priorities, as well as government service delivery, through three functions: investing in the long term knowledge generation capabilities of the national system of innovation in targeted innovation areas; partnering with other government departments and economic actors to spearhead focused efforts that exploit knowledge capabilities for economic benefit; and developing advanced industries, improved government service delivery, and technology transfer. The subprogramme's budget over the medium terms is R3 billion, 97 per cent of which is taken up by transfer payments. The Council for Scientific and Industrial Research accounts for 73 per cent of the total transfers and projects account for 24 per cent. The subprogramme's staff complement is 34 for 2011/12 and it is expected to grow to 39 in 2012/13 and 2013/14. Global change was identified as a major challenge in the 10-year innovation plan. The first phase of the atlas on risk and vulnerability for South Africa was finalised and a hard copy version was produced and published in May 2010. The implementation of the 10-year global change research plan will continue in 2011/12.
- *Science and Technology for Social Impact* leads and supports knowledge generation in human and social dynamics in development, and promotes technology transfer for poverty reduction. The total budget over the medium term is R1 billion, with the transfer payments taking up 97 per cent of the subprogrammes budget as follows: the Human Science Research Council accounts for 61 per cent; research and development accounts for 15 per cent; and the initiatives that support technology for sustainable livelihoods account for 9 per cent. The number of personnel assigned to this subprogramme is expected to remain constant over the medium term, at 13. The subprogramme focuses on mature technologies that are seen as having the potential to achieve government's broad development objectives. This is done by building partnerships with other government departments, focusing on research and technology transfer. The subprogramme is currently piloting the community university partnership programme at four rurally based universities (Fort Hare, Limpopo, Zululand and Venda), which will be carried out between 2009/10 and 2011/12.
- *Science and Technology Investment* leads and supports the development of science and technology indicators, monitors national science and technology expenditure and planning; and implements section 11D of the Income Tax Act (1962). The subprogramme's cost driving activities are policy indicators and research and development planning, where policy indicator activities take up 44 per cent of the programme's budget, and research and development activities 31 per cent of a total budget of R22 million for 2010/11. The total number of personnel assigned to this subprogramme is expected to grow from 15 in 2011/12 to 17 in 2012/13 and 2013/14. Progress with the implementation of the research information management system, which relates to university requirements for managing research portfolios, is under way. The number of institutions actually using one or two modules has increased from 3 in 2008/09 to 10 in 2009/10.

Objectives and measures

- To grow and strengthen a portfolio of niche, high potential but neglected science and technology capabilities and facilitating the exploitation of existing and new capabilities to support sustainable development priorities and the non-energy green economy ambitions of South Africa through:
 - funding and co-funding a minimum of 200 Masters and PhD students over the medium term in designated areas
 - funding and co-funding the development of at least 5 patents, proof of concepts, and demonstrators
 - supporting the publication of 150 publications and technical papers.
- To grow and strengthen a portfolio of niche, high potential research and development capabilities that support the development of new industries in advanced manufacturing, chemicals, advanced metals and information, communication and technology by::
 - funding and co-funding a minimum of 136 Masters and PhD students over the medium term in designated areas
 - funding and co-funding the development of at least 40 patents, proof of concepts, and demonstrators

- providing technology assistance packages to 82 companies by March 2014
- continuing to provide technology services to approximately 1 600 small and medium enterprises annually.
- Demonstrate technology based interventions for poverty reduction in order to support the creation of sustainable job and wealth creation opportunities and contribute to sustainable human settlements and enhanced service delivery in area of deprivation by:
 - supporting the creation of 1 200 sustainable job opportunities by March 2014
 - incubating 10 new businesses by March 2014
 - increasing the number of households benefiting from technology based interventions to 8 000 by March 2014, thus contributing to sustainable human settlements and enhanced service delivery in areas of deprivation.
- Contribute to improving government decision making on science and technology as productive investments and to promote the private sector research and development activities in order to increase government expenditure on research and development as a percentage of Gross Domestic Product by:
 - publishing the 2009 research and development survey report by December 2011
 - producing the 2008 South African innovation survey report by March 2011
 - reporting on the performance of research and development tax incentives by October 2011.

Expenditure estimates

Table 34.10 Socio Economic Partnerships

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10		2010/11	2011/12	2012/13
R thousand							
Science and Technology for Economic Impact	845 009	847 157	899 209	921 731	950 847	984 252	1 035 784
Science and Technology for Social Impact	254 076	247 595	264 910	260 978	297 952	373 371	392 110
Science and Technology Investment	4 847	23 695	10 435	32 801	21 472	23 943	25 282
Total	1 103 932	1 118 447	1 174 554	1 215 510	1 270 271	1 381 566	1 453 176
Change to 2010 Budget estimate				(49 277)	(65 244)	(66 233)	–
Economic classification							
Current payments	22 652	27 814	32 868	47 297	44 717	47 941	50 012
Compensation of employees	14 122	21 974	21 688	32 092	32 293	33 961	35 676
Goods and services	8 530	5 840	11 180	15 205	12 424	13 980	14 336
<i>of which:</i>							
Administrative fees	79	42	66	120	97	104	111
Advertising	152	307	519	362	291	313	336
Assets less than the capitalisation threshold	20	5	44	6	5	10	6
Bursaries: Employees	33	–	–	–	–	–	–
Catering: Departmental activities	167	201	142	288	232	255	267
Communication	774	829	784	1 046	840	913	969
Computer services	375	3	351	67	54	57	62
Consultants and professional services: Business and advisory services	2 616	96	3 450	7 124	6 536	7 148	7 532
Contractors	1	112	30	142	113	135	130
Agency and support / outsourced services	–	681	2 783	766	53	59	61
Entertainment	15	29	15	63	51	61	59
Inventory: Other consumables	1	–	18	6	5	5	6
Inventory: Stationery and printing	333	279	197	363	249	272	287
Lease payments	151	148	149	212	170	200	196
Travel and subsistence	3 416	2 964	2 376	4 201	3 375	4 038	3 909
Training and development	5	1	–	–	–	–	–
Operating expenditure	158	44	33	37	30	38	34
Venues and facilities	234	99	223	402	323	372	371

Table 34.10 Socio Economic Partnerships (continued)

R thousand	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Transfers and subsidies	1 080 941	1 090 391	1 141 296	1 167 807	1 225 113	1 333 162	1 402 677
Departmental agencies and accounts	250 512	273 661	289 550	370 953	405 059	470 467	494 837
Universities and technikons	16 261	6 730	8 130	-	-	-	-
Public corporations and private enterprises	690 929	746 090	792 953	796 854	820 054	862 695	907 840
Non-profit institutions	123 225	63 910	50 663	-	-	-	-
Households	14	-	-	-	-	-	-
Payments for capital assets	339	242	387	406	441	463	487
Machinery and equipment	339	242	387	406	441	463	487
Payments for financial assets	-	-	3	-	-	-	-
Total	1 103 932	1 118 447	1 174 554	1 215 510	1 270 271	1 381 566	1 453 176
Current	250 512	273 661	289 550	370 953	405 059	470 467	494 837
Global Change Science and Technology	-	12 700	15 617	23 696	33 581	33 260	34 990
Human and Social Development Dynamics	-	14 279	3 013	29 289	15 194	8 946	9 412
Human Science Research Council	155 949	163 851	166 185	194 293	206 169	216 365	227 616
Local Systems of Innovation	-	4 999	5 000	8 104	9 120	8 576	9 022
National Public Assets	43 000	-	-	-	-	-	-
Natural Resources and Public Assets	-	52 832	55 296	53 221	61 980	65 079	68 463
Quality of Life Nuclear Technologies	-	-	3 765	5 940	4 938	3 545	3 607
Resource Based Industries	-	-	1 666	3 822	-	-	-
Research Information Management System	-	14 000	-	13 870	2 296	3 611	3 799
Science and Technology Indicators	-	3 000	2 000	7 900	8 494	9 019	9 488
Technology for Poverty Alleviation	23 963	8 000	-	10 140	21 328	30 819	32 448
Technology for Sustainable Livelihoods	300	-	15 659	-	-	-	-
Technology Planning and Diffusion	11 300	-	-	-	-	-	-
Tshumisano Trust	-	-	-	-	-	-	-
Information Communication Technology	16 000	-	-	-	-	-	-
Local Manufacturing Capacity	-	-	-	20 678	22 545	20 862	21 947
South African Research Chairs Initiative	-	-	21 349	-	19 414	70 385	74 045
Universities and technikons							
Current	16 261	6 730	8 130	-	-	-	-
Global Change Science and Technology	-	32	72	-	-	-	-
Local Manufacturing Capacity	-	-	1 611	-	-	-	-
Local Systems of Innovation	-	400	1 680	-	-	-	-
Resource Based Industries	-	98	950	-	-	-	-
Technology for Poverty Alleviation	8 961	-	-	-	-	-	-
Technology for Sustainable Livelihoods	7 300	6 200	3 817	-	-	-	-
Households							
Households other transfers							
Current	14	-	-	-	-	-	-
Gifts and donations	14	-	-	-	-	-	-

Table 34.10 Socio Economic Partnerships (continued)

R thousand	Audited outcome			Adjusted appropriation 2010/11	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10		2011/12	2012/13	2013/14
Non-profit institutions							
Current	123 225	63 910	50 663	-	-	-	-
Advanced Manufacturing Technology Strategy	10 000	9 999	-	-	-	-	-
Local Systems of Innovation	-	311	120	-	-	-	-
Resource Based Industries	5 365	3 500	606	-	-	-	-
South African National Energy Research Institute	42 000	-	-	-	-	-	-
Technology for Poverty Alleviation	7 000	-	-	-	-	-	-
Technology for Sustainable Livelihoods	405	-	-	-	-	-	-
Technology Planning and Diffusion	22 455	-	-	-	-	-	-
Tshumisano Trust	36 000	36 600	36 437	-	-	-	-
Information Communication Technology	-	-	-	-	-	-	-
Local Manufacturing Capacity	-	13 500	13 500	-	-	-	-
Public corporations and private enterprises							
Public corporations							
Other transfers to public corporations							
Current	173 577	191 403	193 569	111 070	132 885	135 204	142 260
Advanced Manufacturing Technology Strategy	47 706	38 000	47 229	45 480	49 569	43 297	45 548
Global Change Science and Technology	-	4 268	4 685	-	-	-	-
Human and Social Development Dynamics	-	12 000	8 400	-	-	-	-
Local Manufacturing Capacity	-	10 000	10 000	-	-	-	-
Local Systems of Innovation	-	740	405	500	-	-	-
Quality of Life Nuclear Technologies	-	5 000	-	-	-	-	-
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Resource Based Industries	22 200	29 603	28 326	36 351	39 061	39 014	41 043
Technology for Poverty Alleviation	-	15 500	25 558	-	-	-	-
Technology for Sustainable Livelihoods	45 035	21 316	13 380	16 455	25 903	35 623	37 501
Technology Planning and Diffusion	4 426	-	-	-	-	-	-
Information Communication Technology	54 210	54 976	55 586	12 284	18 352	17 270	18 168
Public corporations and private enterprises							
Public corporations							
Public corporations - subsidies on products and production							
Current	517 352	554 687	599 384	685 784	687 169	727 491	765 580
Council for Scientific and Industrial Research	517 352	554 687	599 384	685 784	687 169	727 491	765 580

Expenditure trends

The spending focus over the medium term will be on providing technological support to local manufacturing firms to allow them to become potential suppliers to large scale public procurement processes. The programme will also continue to support the implementation of the 10-year innovation plan's objective for human and social development dynamics and science and technology for global change.

Expenditure increased from R1.1 billion in 2007/08 to R1.2 billion in 2010/11, at an average annual rate of 3.3 per cent. The marginal increase is ascribed to expansion of activities in policy and indicator

development, tax incentives, sustainable human settlement research, sustainable livelihoods and social development analysis.

Over the medium term, expenditure is expected to increase at an average annual rate of 6.1 per cent, to reach R1.5 billion in 2013/14, to provide for inflationary adjustments. .

The ratio of administrative costs to line function costs in this programme is 1:28.4.

Public entities and other agencies

Africa Institute of South Africa

Strategic overview: 2007/08 – 2013/14

The Africa Institute of South Africa is a statutory body established in terms of the Africa Institute of South Africa Act (2001). It focuses on political, socioeconomic, international and development issues in contemporary Africa, and contributes to the goals of the national system of innovation through research programmes which impact on knowledge production, human resource development, social science and innovation. The institute's key roles are to conduct research, support policy development, run training programmes, and establish, participate in and maintain networks for peace, development and prosperity in Africa. Budget allocations are augmented through joint research ventures with like minded institutions and sponsorships.

Over the medium term, the institute will continue to do research in priority areas focusing on projects with like minded partners and getting greater global coverage. In support of this, there will be an emphasis on building relationships with strategic partners in South Africa and other African countries, the African Union (AU), and the New Partnership for Africa's Development (NEPAD) and United Nations (UN) agencies. The institute will continue to build capacity and expand its database of researchers.

Savings and cost effectiveness measures

The institute implemented firmer controls over operational expenditure in the third quarter of 2010/11. The controls included: monitoring expenditure trends and implementing firmer controls; identifying process oriented efficiency to streamline operations and administration; improving cash flow stability; acquiring professional capacity more economically through new partnership agreements; monitoring vacant posts and evaluating its on a needs basis; exploring appointing an in-house internal auditor instead of outsourcing the said function. Efficiency savings will be monitored on a continual basis to ensure that the reduction in input costs does not erode the institute's effectiveness in the long term.

Selected performance indicators

Table 34.11 Africa Institute of South Africa

Indicator	Programme/Activity	Past			Current 2010/11	Projections		
		2007/08	2008/09	2009/10		2011/12	2012/13	2013/14
Number of journal articles published per year	Publications	15	66	72	53	30	30	30
Number of monographs, e-monographs and occasional papers published per year	Publications	2	6	6	11	12	12	12
Number of policy briefs published per year	Publications	-	-	-	25	32	32	32
Number of books accepted for publication or published per year	Publications	5	11	6	16	12	14	14
Number of conference papers published per year	Publications	-	-	-	-	15	15	15

Details of programmes/activities/objectives

Table 34.12 Africa Institute of South Africa

R thousand	Audited outcome			Revised estimate 2010/11	Medium-term estimates		
	2007/08	2008/09	2009/10		2011/12	2012/13	2013/14
Research	3 173	3 077	3 365	5 373	6 168	6 339	5 183
Publications	857	1 329	1 589	1 402	1 865	2 399	2 531
Library and Documentation	866	627	791	2 864	3 194	2 025	2 004
Corporate Affairs, Outreach and International Liaison	973	1 060	567	3 471	3 780	4 134	4 461
Other Objectives	18 178	18 216	26 648	23 133	22 221	24 465	27 013
Total expense	24 047	24 309	32 960	36 243	37 228	39 362	41 192

The total budget for Africa Institute of South Africa in 2010/11 was R36 million, 14.8 per cent of which was used in the research programme.

Research deals with all research activities. The total staff complement is 18 full time employees and 8 interns.

Publications publishes and disseminates all the research outputs of the institute. The division publishes policy briefs, newsletters, monographs, occasional papers and books. The institute's flagship publication, Africa Insight, is a Department of Higher Education accredited and peer reviewed journal. It has 5 full time employees and 1 intern.

Library and Documentation manages information and knowledge in the institute by collecting, processing and disseminating information in various formats to maximise access. It has 11 full time employees and 1 intern.

Corporate Affairs, Outreach and International Liaison organises the outreach and international liaison activities of the institute in South Africa and globally. This involves organising meetings, seminars, conferences, exhibitions and other events.

The support services of the institute include the **Human Resources** and **Finance, Administration and IT** programmes, which assist the core divisions and the institute in obtaining strategic objectives and goals. The human resources division has 4 full time employees and the finance division has 14 full time employees, 1 intern and 1 contract worker.

Expenditure estimates

Table 34.13 Africa Institute of South Africa

Statement of financial performance				Revised	Medium-term estimate		
R thousand	Audited outcome			estimate			
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Revenue							
Non-tax revenue	1 222	1 141	1 251	3 889	4 788	5 300	5 359
Sale of goods and services other than capital assets	54	36	60	254	120	140	160
<i>of which:</i>							
<i>Sales by market establishments</i>	54	36	60	254	120	140	160
<i>Other non-tax revenue</i>	1 168	1 105	1 191	3 635	4 668	5 160	5 199
Transfers received	26 530	30 464	29 280	30 594	32 440	34 062	35 833
Total revenue	27 752	31 605	30 531	34 483	37 228	39 362	41 192
Expenses							
Current expense	24 047	24 310	32 961	36 243	37 228	39 362	41 192
Compensation of employees	11 206	14 744	16 387	18 194	20 921	21 789	22 742
Goods and services	12 396	8 832	16 029	16 295	15 101	16 252	17 568
Depreciation	314	734	545	1 754	1 206	1 320	882
Interest, dividends and rent on land	131	-	-	-	-	-	-
Total expenses	24 047	24 310	32 961	36 243	37 228	39 362	41 192
Surplus / (Deficit)	3 705	7 295	(2 430)	(1 760)	-	-	-
Statement of financial position							
Carrying value of assets	2 386	3 539	4 847	2 761	2 502	2 294	2 262
<i>of which: Acquisition of assets</i>	1 221	2 002	3 313	500	1 020	1 220	1 650
Investments	34	61	-	65	68	72	6
Inventory	704	1 374	1 654	1 600	1 650	1 700	800
Receivables and prepayments	368	5 601	942	3 000	600	700	800
Cash and cash equivalents	8 221	4 788	5 337	11 193	4 911	4 737	-
Assets not classified elsewhere	2 285	2 427	3 201	1 903	1 703	1 503	1 800
Total assets	13 998	17 790	15 981	20 522	11 434	11 006	5 668
Accumulated surplus/deficit	11 461	14 822	11 392	7 584	9 184	8 136	5 228
Trade and other payables	1 667	2 206	1 386	1 900	450	2 100	1 140
Provisions	870	762	3 203	750	1 800	770	(700)
Liabilities not classified elsewhere	-	-	-	10 288	-	-	-
Total equity and liabilities	13 998	17 790	15 981	20 522	11 434	11 006	5 668

Expenditure trends

The spending focus over the medium term will be on research, with the specific focus outline on the new research agenda, which is seeking a development solution for African development. The aim is to channel research towards improving health, education and social services, sustainable community development and dealing with corruption in Africa.

Revenue is mainly generated from research publications. Between 2007/08 and 2010/11, revenue increased from R27.8 million to R34.5 million, at an average annual rate of 7.5 per cent. The decline in sales by market establishment by 14 per cent can be attributed to the strategic decision to remodel the marketing and redistribution strategies due to poor sales in recent years. Revenue is expected to increase to R42.7 million in 2013/14, at an average annual rate of 6.1 per cent. The increase in both periods is mainly due to inflationary adjustment.

Expenditure increased from R24 million in 2007/08 to R36.2 million in 2010/11, at an average annual rate of 14.7 per cent. Over the medium term, expenditure is expected to increase to R41.2 million, at an average annual rate of 4.4 per cent. The increase from 2007/08 to 2010/11 is driven mainly by an increase in

employment related costs, which grew by 17.5 per cent and are expected to increase at an average annual rate of 7.7 per cent over the medium term.

The ratio of administrative costs to line function costs in the agency is 1:1.58.

Personnel information

The institute consists of 11 members appointed by the Minister of Science and Technology for a three-year term. The chief executive officer and the accounting officer are appointed on a five-year contract. The total staff complement is 52 full time employees, 11 interns and 1 contract worker.

Academy of Science of South Africa

Strategic overview: 2007/08 – 2013/14

The mandate of the Academy of Science of South Africa, established under the Academy of Science of South Africa Act (2001), is to: link South Africa with scientific communities at the highest levels in the Southern African Development Community, the rest of Africa and internationally; promote common ground in scientific thinking across all disciplines; encourage and promote innovative and independent scientific thinking; promote the development of the intellectual capacity of all people; provide effective scientific evidence based advice and facilitate appropriate action in the public interest.

The academy's medium term priorities are to: improve the impact of the study reports produced on evidence based policy advice; strengthen interactions with key policymakers and stakeholders; promote robust high level discussions on science related issues that are of relevance to South Africa; and implement an open access platform for South African scholarly journals.

Savings and cost effectiveness measures

The academy will continue to implement measures consistent with prudent financial resource use without compromising on its ability to achieve its objectives and mandate. These measures include: negotiating discounted rates on travel and accommodation, which is expected to yield savings of R250 000; procuring goods and services after seeking competitive quotations; and making bookings in advance and only booking economy class air travel.

Selected performance indicators

Table 34.14 Academy of Science of South Africa

Indicator	Programme/Activity	Past			Current	Projections		
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number of consensus panel meetings held per year	Policy and Evidence Based Projects	8	15	15	16	16	16	16
Number of forum study meetings held per year	Policy and Evidence Based Projects	1	5	5	5	5	5	5
Number of National Scholarly Journal Editors Forum meetings held per year	Scholarly Publishing Programme	1	1	1	1	1	1	1
Number of evidence based reports published per year	Policy and Evidence Based Projects	1	2	5	5	5	5	5
Number of issues of the South African Journal of Science published per year	Scholarly Publishing Programme	6	7	6	6	6	6	6
Number of issues of Quest magazine published per year	Scholarly Publishing Programme	4	4	4	4	4	4	4
Number of public lectures and symposia hosted per year	National and International Liaison	8	6	7	6	6	6	6
Number of research fellowships and awards granted per year	National and International Liaison	4	3	3	3	3	3	3
Number of international conferences hosted per year	National and International Liaison	-	-	1	1	1	1	1

Details of programmes/activities/objectives

Table 34.15 Academy of Science of South Africa

R thousand	Audited outcome			Revised estimate	Medium-term estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Administration and Governance	562	814	2 009	2 094	2 094	2 160	2 268
National and International liaison	506	732	2 147	1 113	720	920	966
Policy and Evidence based projects	756	1 094	4 764	3 272	3 280	3 400	3 570
Scholarly Publishing Programme	456	660	3 455	694	767	1 140	1 197
Sustainability fund	5 887	9 393	12 471	13 888	14 030	14 750	15 197
Total expense	8 167	12 693	24 846	21 061	20 891	22 370	23 198

The total budget of Academy of Science of South Africa in 2010/11 was R21 million, of which 66 per cent was used in the sustainability fund programme.

Administration and Governance covers the activities of the council and its various committees, reports to the Department of Science and Technology, and conducts general administration, human resource and financial services. The total budget over the medium term is R6.5 million, with three members of staff undertaking these activities at a cost of R1.1 million.

National and International Liaison focuses on linkages with various government departments and science councils, as well as universities and members of the academy. International activities are currently focused mainly on Southern Africa and Africa. With the academy's election to the presidency of the Network of African Science Academies with effect from 2011, the academy's role in continental wide activities is expected to increase. This programme has a staff complement of 3 employees and a total medium term budget of R2.6 million, R1.2 million of which comprises the combined salaries.

Policy and Evidence Based Projects undertakes evidence based projects with a view to provide scientific policy advice to government and other stakeholders. This programme has a total budget of R10.3 million, over the medium term. The number of projects has greatly increased. There are 4 members of staff in this programme, with a combined salary of R1.6 million.

Scholarly Publishing Programme implements the recommendations of the academy's 2006 consensus report. Its overall aims are to enhance the visibility of South African scholarly journals and to enhance the national capacity to produce research. This programme has a total budget of R3.1 million over the MTEF period. There are 5 members of staff undertaking these activities and their combined salary is R1.9 million.

Communication is responsible for reports and publications (the South African Journal of Science and Quest), as well as marketing the academy among its stakeholders at events and through press releases. This programme has a staff complement of 4 employees and a total budget of R1.4 million, with a combined salary of R1.4 million.

Expenditure estimates

Table 34.16 Academy of Science of South Africa

Statement of financial performance				Revised estimate	Medium-term estimate		
R thousand	Audited outcome				2010/11	2011/12	2012/13
	2007/08	2008/09	2009/10				
Revenue							
Non-tax revenue	835	1 158	1 330	1 066	1 018	970	972
Sale of goods and services other than capital assets <i>of which:</i>	378	375	440	316	268	220	222
<i>Sales by market establishments</i>	378	375	440	316	268	220	222
<i>Other non-tax revenue</i>	457	783	890	750	750	750	750
Transfers received	8 602	16 430	24 803	19 994	19 873	21 400	22 226
Total revenue	9 437	17 588	26 133	21 060	20 891	22 370	23 198
Expenses							
Current expense	8 167	12 693	24 846	21 060	20 891	22 370	23 198
Compensation of employees	2 785	4 908	8 551	9 235	9 881	10 573	11 313
Goods and services	5 352	7 747	16 026	11 529	10 759	11 581	11 696
Depreciation	30	38	269	296	251	216	189
Total expenses	8 167	12 693	24 846	21 060	20 891	22 370	23 198
Surplus / (Deficit)	1 270	4 895	1 287	-	-	-	-
Statement of financial position							
Carrying value of assets	139	240	1 467	1 231	1 050	904	784
<i>of which: Acquisition of assets</i>	-	139	1 496	60	70	70	70
Receivables and prepayments	-	-	198	-	-	-	-
Cash and cash equivalents	5 275	11 353	11 199	10 152	8 268	8 284	8 326
Assets not classified elsewhere	-	-	(340)	-	-	-	-
Total assets	5 414	11 593	12 524	11 383	9 318	9 188	9 110
Accumulated surplus/deficit	4 970	8 865	10 152	10 983	9 018	8 938	8 910
Trade and other payables	444	2 728	1 439	-	-	-	-
Provisions	-	-	481	400	300	250	200
Liabilities not classified elsewhere	-	-	794	-	-	-	-
Total equity and liabilities	5 414	11 593	12 866	11 383	9 318	9 188	9 110

Expenditure trends

Over the MTEF period, the spending focus will remain on linking South Africa with scientific communities in the SADC region and Africa, and promoting scientific thinking across all disciplines.

Revenue is mainly received as government transfers from the Department of Science and Technology. Between 2007/08 and 2010/11, total revenue increased from R9.4 million to R21.1 million, at an average annual rate of 30.7 per cent. Over the medium term, revenue is expected to increase to R23.2 million in 2013/14, at an average annual rate of 3.3 per cent. The growth in both periods is mainly due to additional allocations from the department for increased capacity.

Expenditure increased from R8.2 million in 2007/08 to R21.1 million in 2010/11, at an average annual rate of 37.1 per cent. The increase was due to spending, mainly on compensation of employees and goods and services, due to additional allocations for increased capacity.

Over the MTEF period, expenditure is expected to grow to R23.2 million in 2013/14, at an average annual rate of 3.3 per cent, taking into account inflationary adjustments.

Personnel information

The academy has experienced an increase in human resource requirements due to increase in demand for evidence-based projects. This is why the number of staff has increased from 13 in 2007/08 to 21 in 2010/11.

Council for Scientific and Industrial Research

Strategic overview: 2007/08 – 2013/14

The Council for Scientific and Industrial Research was established under the Scientific Research Council Act (1988). Its objectives are to foster industrial and scientific development in the national interest through multidisciplinary research and technological innovation. The council's activities, focused on directed research and development, cut across the research and innovation value chain.

The council's research impact areas are: renewable and alternative energy; new drug development and nutrition; defence capability as a national asset; climate change, pollution and waste, water and coastal issues; transport and human settlements; manufacturing and mining industries; and cyber infrastructure and information security and accessibility. These impact areas support national priorities.

Priorities over the medium term include: building and transforming human capital; strengthening the science, engineering and technology base; carrying out relevant research and development; transferring skills and technology and maintaining financial sustainability and good governance.

A number of measures are in place to address potential reductions in funding and income from research and development, and to ensure the continuity of the council's work and cost effective service delivery.

Savings and cost effectiveness measures

Selected performance indicators

Table 34.17 Council for Scientific and Industrial Research

Indicator	Programme/Activity	Past			Current	Projections ¹		
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Percentage of science, engineering and technology workers who are black	Building and transforming human capital	51.6%	53.3%	52.2%	53%	54%	55%	55.5%
Total number of staff with PhD level qualifications	Building and transforming human capital	263	273	283	293	305	320	335
Number of publications by staff per year	Strengthening the science engineering and technology base and performing relevant research and development	343	451.5	502	485	510	534	540
Value of contract research and development formally recognised as supporting national strategies	Transferring technology and skilled Human capital	R373.5m	R450m	R693.8m	R603m	R650m	R696.9m	R720m
Number of new international and national patents granted per year	Transferring technology and skilled human capital	21	35	13	11	16	18	20

1. Projections are subject to the approval of the shareholders' compact with the council's board and the Minister of Science and Technology.

Details of programmes/activities/objectives

Table 34.18 Council for Scientific and Industrial Research

R thousand	Audited outcome			Revised estimate	Medium-term estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Defence, Peace, Safety and Security	217 223	298 006	300 810	328 849	334 951	353 475	376 272
Materials Science and Manufacturing	146 418	182 691	168 489	168 592	171 720	181 217	192 904
Biosciences	126 681	122 614	133 914	134 770	137 271	144 863	154 205
Natural Resources and the Environment	181 183	185 246	139 024	149 066	151 832	160 229	170 563
Built Environment	126 539	157 028	141 409	152 867	155 703	164 314	174 912
Other Objectives	445 215	580 954	837 036	795 641	730 317	770 709	820 414
Total expense	1 243 259	1 526 539	1 720 682	1 729 786	1 681 794	1 774 807	1 889 270

The total budget for the Council of Scientific and Industrial Research in 2010/11 was R1.7 billion, of which 19 per cent was used in the Defence, Peace, Safety and Security programme.

Defence, Peace, Safety and Security conducts research and outcomes towards creating a safe and secure South Africa. This programme has a staff complement of 257 employees and a total MTEF budget of R1.1 billion. In 2009/10, the following outputs were achieved: developed a safety planning toolkit; provided border protection through ubiquitous surveillance; and protected cash in transit from heists via innovative design of cash transit vehicles and cash containers.

Materials Science and Manufacturing applies technology and skilled human resources to improve the competitiveness of South African industries. This programme has a staff complement of 200 employees and a total MTEF budget of R545.8 million. The following activities are ongoing: development of a South African titanium industry based on the beneficiation of the local titanium resources; development of specialised materials for the long term treatment of tuberculosis; inspection of electricity transmission power lines; and improvement of the operational, energy efficiency and environmental performance of SMMEs.

Biosciences provide competitive bioscience solutions to improve health, food security and energy provision, and creates a sustainable biotechnology industry in South Africa. This programme has a staff complement of 163 employees and a total MTEF budget of R436.4 million. Research programmes in this area include the development of drugs for the treatment of tuberculosis, malaria, and HIV and AIDS. In addition, point of care diagnostics for these diseases are being developed, which will contribute towards the provision of high quality and on time health care to rural communities.

Natural Resources and the Environment contributes towards supporting government environmental policy development; pollution; and waste management and sustainable development. This programme has a staff complement of 260 and a total MTEF budget of R482.6 million. The following outputs were achieved: understanding the vulnerability of South Africa's society, industry and commerce to climate change effects and providing thought leadership on environmental management including water pollution.

Built Environment develops technologies that contribute to a competitive built environment industry, improved energy efficiency, and quality of life, through the provision of basic services such as clean water and housing. This programme has a staff complement of 192 and a total MTEF budget of R494.9 million. This is achieved through the use of technology to develop better low income housing, cost effective and labour intensive road infrastructure, sustainable livelihoods through better spatial development planning and infrastructure provision.

Meraka Institute supports the development of an information society through ICT access and technology development. This programme has a staff complement of 150 and a total budget of R221.9 million. Initiatives implemented through this programme support various government priorities such as rural development through the digital doorway and wireless mesh networks, provision of education through Dr Maths, sustained energy provision through fire monitoring and reporting around power transmission lines.

Consulting and Analytical Services provides consulting services to a number of industries including mining, food and beverage, built environment, and others, thus supporting service delivery, industrial development and competitiveness. This programme has a staff complement of 70 and a total budget of R95.9 million.

Enterprise Creation for Development supports the development of sustainable SMMEs, in particular for rural communities. This programme has a staff complement of 16 and a total budget of R21.3 million. Initiatives undertaken in this area include the development of essential oil products, fish farming and the training of entrepreneurs. The expected impact for the coming year includes more than 350 project beneficiaries supported, training and mentoring provided to about 60 project beneficiaries, the transfer of four technology solutions and the creation of four new enterprises has started.

Modelling and Digital Science applies mathematical sciences as a cross-cutting capability to support the development of technologies and decision making in information security, energy modelling, water provision and health. This programme has a staff complement of 26 and a total budget of R38 million.

National Laser Centre applies photonics technology and expertise to improve the competitiveness of local industries, and develop new innovations and human capital. This programme has a staff complement of 63 and a total budget of R53.8 million.

Expenditure estimates

Table 34.19 Council for Scientific and Industrial Research

Statement of financial performance				Revised estimate	Medium-term estimate		
R thousand	Audited outcome				2010/11	2011/12	2012/13
	2007/08	2008/09	2009/10				
Revenue							
Non-tax revenue	868 522	1 107 021	1 267 338	1 177 511	1 176 349	1 239 209	1 326 379
Sale of goods and services other than capital assets	793 366	991 841	1 187 436	1 124 780	1 133 118	1 200 814	1 288 924
<i>of which:</i>							
<i>Sales by market establishments</i>	793 366	991 841	1 187 436	1 124 780	1 133 118	1 200 814	1 288 924
<i>Other non-tax revenue</i>	75 156	115 180	79 902	52 731	43 231	38 395	37 455
Transfers received	429 013	477 796	510 951	583 424	539 375	571 574	601 524
Total revenue	1 297 535	1 584 817	1 778 289	1 760 935	1 715 724	1 810 783	1 927 903
Expenses							
Current expense	1 243 394	1 525 054	1 720 560	1 729 786	1 681 794	1 774 807	1 889 270
Compensation of employees	628 319	771 977	880 745	963 953	984 032	1 040 813	1 115 577
Goods and services	580 593	705 645	789 876	691 896	632 617	663 638	696 301
Depreciation	28 061	37 409	42 787	73 937	65 145	70 356	77 392
Interest, dividends and rent on land	6 421	10 023	7 152	-	-	-	-
Total expenses	1 243 259	1 526 539	1 720 682	1 729 786	1 681 794	1 774 807	1 889 270
Surplus / (Deficit)	54 276	58 278	57 607	31 149	33 930	35 976	38 633
Statement of financial position							
Carrying value of assets	225 429	297 985	350 249	346 704	342 947	351 683	358 129
<i>of which: Acquisition of assets</i>	41 794	115 092	96 030	70 392	61 388	79 091	83 838
Investments	-	100 000	-	-	-	-	-
Inventory	61 712	79 338	80 928	91 326	98 632	106 523	118 563
Receivables and prepayments	267 076	138 725	128 752	152 946	165 182	178 397	186 245
Cash and cash equivalents	691 476	782 528	799 982	759 225	701 147	666 790	684 440
Assets not classified elsewhere	94 890	96 756	96 635	1 487	1 487	1 487	1 487
Total assets	1 340 583	1 495 332	1 456 546	1 351 688	1 309 395	1 304 880	1 348 864
Accumulated surplus/deficit	392 732	449 495	507 152	538 301	572 231	608 207	646 840
Post-retirement benefits	8 595	8 862	9 875	-	-	-	-
Trade and other payables	896 144	994 960	896 721	811 887	735 664	695 173	700 524
Provisions	-	1 427	381	1 500	1 500	1 500	1 500
Liabilities not classified elsewhere	43 112	40 588	42 417	-	-	-	-
Total equity and liabilities	1 340 583	1 495 332	1 456 546	1 351 688	1 309 395	1 304 880	1 348 864

Expenditure trends

The council generates revenue from research and development contract income and transfers from the Department of Science and Technology. Between 2007/08 and 2010/11, revenue increased from R1.3 billion to R1.8 billion. Over the medium term, revenue is expected to remain relatively flat. The growth in revenue between 2007/08 and 2010/11 was mainly due to an increase in research and development contract income. Over the medium term, research and development contract income declines, particularly in 2011/12 and 2012/13, due to the transfer of the Satellite Applications Centre to the South African National Space Agency and the advanced manufacturing technology strategy to the Technology Innovation Agency.

Expenditure increased from R1.2 billion in 2007/08 to R1.7 billion in 2010/11. Over the medium term, expenditure is expected to increase to R1.8 billion. A portion of the council's expenditure is driven by the research and development contracts secured and between 2007/08 and 2010/11, increased in line with research and development contract income.

Personnel information

The Council of Scientific and Industrial Research has an establishment of 2 409 posts, all of which are funded. The number of posts increased by 181 staff members from 2 278 in 2007/08 to 2 459 in 2010/11. The number of permanent and non-permanent staff members is expected to increase from 2 416 to 2 602 over the MTEF period.

Table 34.20 Council for Scientific and Industrial Research

	Post status as at 30 September 2010			Number of posts filled on funded establishment						
	Number of posts on approved establishment	Number of funded posts (establishment)	Number of vacant posts	Actual			Mid-year ¹	Medium-term estimate		
				2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Board members	8	8	–	8	8	8	8	8	8	8
Executive management	8	8	–	9	8	8	8	8	8	8
Senior management	74	74	–	49	60	80	80	80	80	80
Middle management	988	988	–	888	951	979	988	995	1 002	1 009
Professionals	887	887	–	827	881	892	891	930	970	1 014
Semi-skilled	430	430	–	466	444	432	466	462	465	465
Very low skilled	14	14	–	31	23	17	18	18	18	18
Total	2 409	–	–	2 278	2 375	2 416	2 459	2 501	2 551	2 602
Compensation (R thousand)				628 319	771 977	880 745	963 953	945 421	974 572	1 006 910
Unit cost (R thousand)				276	325	365	392	378	382	387

1. As at 30 September 2010.

Human Sciences Research Council

Strategic overview: 2007/08 – 2013/14

The Human Sciences Research Council was established in 1968 to undertake, promote and coordinate research in the human and social sciences. It functions in terms of the Human Sciences Research Council Act (2008), which mandates the organisation to: address developmental challenges in South Africa, Africa and the rest of the world by means of strategic basic and applied research in the human sciences; inform the formulation and monitoring of policy, and evaluate its implementation; stimulate public debate by disseminating research results; help build research capacity and infrastructure for the human sciences; foster collaborations, networks and institutional linkages; respond to the needs of vulnerable and marginalised groups; and develop and make available data sets to underpin research, policy development and discussions of developmental issues.

The council aligns its research activities and structures with South Africa's national development priorities. Its work is closely aligned with government's 12 outcomes and medium term strategic framework.

Organisational performance is measured in terms of indicators that are informed by the mandated objectives of the council, as well as the performance objectives of the Minister of Science and Technology and the Department of Science and Technology. A revised set of core indicators was introduced for 2010/11.

Savings and cost effectiveness measures

The council has implemented measures to retain costs through: the effective use of IT infrastructure for research activities, support services and internal communication; saving on travel and subsistence costs by using video and teleconference facilities for meetings; implementing ongoing energy saving measures; limiting international travel from baseline funds; advertising vacant posts online; and centralising procurement through supply chain management. In addition, the council has brought services such as cleaning and security services, which were previously outsourced, in-house.

Selected performance indicators

Table 34.21 Human Sciences Research Council

Indicator	Programme/Activity	Past			Current	Projections		
		2007/08	2008/09	2009/10		2010/11	2011/12	2012/13
Percentage of research projects conducted for the benefit of the public	Research	93%	97%	97.4% (190/195)	- ¹	95% (114/120)	95% (120/130)	- ¹
Percentage of large research projects done collaboratively with researchers in other parts of Africa	Research	31%	25%	32.6% (15/46)	- ¹	38% (15/39)	40% (16/40)	- ¹
Number of African research fellows at the Human Sciences Research Council per year	Support Services	7	6	7	- ¹	12	14	- ¹
Percentage of large research projects with implementation networks	Research	81%	81%	84.8% (39/46)	- ¹	75% (90/120)	78% (97/125)	- ¹
Percentage of researchers at senior level who are black and African	Support Services	37%	35%	42.9% (27/63)	- ¹	50% (38/76)	53% (42/80)	- ¹
Attrition rate amongst permanent staff members each year	Support Services	14.6%	9.9%	8.8% (19/217)	- ¹	-	-	- ¹
Percentage of staff trained in gender sensitivity by the end of each year	Support Services	1	1	83.3% (409/491)	- ¹	-	-	- ¹
Ratio of peer-reviewed publications in an internationally-recognised journal to senior researcher	Research	0.67	1.51	1.52 (96/63)	- ¹	1.5 (117/78)	1.6 (128/80)	- ¹
Ratio of peer-reviewed publications to junior researcher	Research	0.67	0.81	0.83 (48/58)	- ¹	0.67 (46/68)	0.7 (49/70)	- ¹
Number of research interns (trainees) enrolled in a Master's programme per year	Research	46	41	38	- ¹	34	30	0
Number of research interns (trainees) enrolled in a PhD programme per year	Research	35	36	35	22	25	30	34
Number of postdoctoral fellowships (research associates) taken up per year	Research	10	12	14	20	22	22	22
Number of Human Sciences Research Council research datasets archived or curated per year	Research	-	-	-	7	14	21	21

1. Data not provided.

Details of programmes/activities/objectives

Table 34.22 Human Sciences Research Council

R thousand	Audited outcome			Revised estimate	Medium-term estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Research	204 179	249 421	251 054	253 352	267 731	284 105	301 270
Support Services	62 541	86 821	89 363	79 080	79 971	84 862	89 990
Total expense	266 720	336 242	340 417	332 432	347 702	368 967	391 260

The core activity of the council is research and related research dissemination. Research themes covered by the council include: economic growth, employment creation and poverty reduction; education and skills development; the social aspects of HIV and AIDS and modes for affordable healthcare provision; democratic development and service delivery, urban and rural development, housing provision and food security; youth development and social cohesion; and the interactions of science, technology and society. The council receives government transfers of R571 million over the MTEF period, all of which is used for research activities. In 2009/10, 367 research outputs were produced.

Expenditure estimates

Table 34.23 Human Sciences Research Council

Statement of financial performance							
R thousand	Audited outcome			Revised estimate	Medium-term estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Revenue							
Non-tax revenue	134 431	182 556	192 676	162 000	166 852	178 713	191 112
Sale of goods and services other than capital assets	128 202	176 741	190 433	160 000	164 632	176 249	188 377
<i>of which:</i>							
<i>Sales by market establishments</i>	124 177	162 863	167 521	157 000	160 132	170 249	180 877
<i>Other sales</i>	4 025	13 878	22 912	3 000	4 500	6 000	7 500
<i>Other non-tax revenue</i>	6 229	5 815	2 243	2 000	2 220	2 464	2 735
Transfers received	127 164	140 334	147 970	170 432	180 850	190 254	200 147
Total revenue	261 595	322 890	340 646	332 432	347 702	368 967	391 259
Expenses							
Current expense	257 378	325 860	328 844	320 167	334 088	353 854	374 482
Compensation of employees	118 790	122 516	142 886	150 812	159 861	169 452	179 619
Goods and services	134 369	191 539	170 703	165 471	170 255	180 340	190 711
Depreciation	4 219	9 092	12 858	3 884	3 972	4 062	4 152
Interest, dividends and rent on land	-	2 713	2 397	-	-	-	-
Transfers and subsidies	9 342	10 382	11 573	12 265	13 614	15 113	16 777
Total expenses	266 720	336 242	340 417	332 432	347 702	368 967	391 259
Surplus / (Deficit)	(5 125)	(13 352)	229	-	-	-	-
Statement of financial position							
Carrying value of assets	91 920	181 013	186 248	185 264	184 192	183 030	181 778
<i>of which: Acquisition of assets</i>	7 614	15 634	19 750	2 900	2 900	2 900	2 900
Inventory	2 698	3 517	4 166	4 275	4 856	5 535	6 214
Receivables and prepayments	41 838	28 704	44 278	29 505	33 517	38 209	42 901
Cash and cash equivalents	46 865	47 027	18 235	39 997	37 229	32 447	27 665
Assets not classified elsewhere	733	905	3 599	2 144	2 435	2 776	3 117
Total assets	184 054	261 166	256 526	261 185	262 229	261 997	261 675
Accumulated surplus/deficit	9 402	25 135	32 499	32 499	32 499	32 499	32 499
Capital and reserves	74 665	143 652	144 404	144 404	144 404	144 404	144 404
Borrowings	1 120	811	735	-	-	-	-
Trade and other payables	78 114	73 146	61 376	61 758	66 229	68 182	69 515
Provisions	10 110	10 648	12 041	14 006	13 579	14 394	15 257
Liabilities not classified elsewhere	10 643	7 774	5 471	8 518	5 518	2 518	-
Total equity and liabilities	184 054	261 166	256 526	261 185	262 229	261 997	261 675

Expenditure trends

The council is funded by transfer payments from the Department of Science and Technology, as well as by ringfenced allocations. External income is generated from research grants, contract research work and non-research activities, such as rental income. Allocations over the MTEF period are R180.8 million, R190.2 million and R200.1 million. These amounts include ringfenced allocations and reflect an average annual increase of 5.3 per cent over the MTEF period, which takes into account inflationary adjustments.

Between 2007/08 and 2010/11, expenditure increased from R266.7 million to R332.4 million, at an average annual rate of 8.3 per cent. Increases were mainly due to salary related expenses, which were driven by increases in the number of staff, due to an expansion in the council's work. Over the medium term, expenditure is expected to increase to R391.3 million, at an average annual rate of 5.6 per cent. This is due to an increase in compensation of employees related expenses and the adjustment for inflation.

Personnel information

The council's staff complement is projected to remain stable over the MTEF period. Between 2007/08 and 2010/11, the number of staff at the semi-skilled level grew mainly as a result of the decision to bring some support services in-house. Also contributing to the growth in staff was the need to address project related requirements for large, long term community based projects.

National Research Foundation

Strategic overview: 2007/08 – 2013/14

The National Research Foundation Act (1998) mandates the National Research Foundation to promote and support research in all fields of humanities, the social and natural sciences, engineering and technology. It provides funding, research facilities and science awareness education and communications. The foundation also performs an agency function on behalf of the Department of Science and Technology and is a service provider to several other government departments.

The 2015 strategic plan aims to: promote internationally competitive research as the basis for a knowledge economy; grow a representative science and technology workforce in South Africa; provide cutting edge research, technology and innovation platforms; operate world class evaluation and funding systems; and contribute to a vibrant national innovation system.

The foundation's main priority over the medium term is to facilitate initiatives for developing specialised skills and to address the severe shortages of researchers, particularly previously disadvantaged researchers. In the hi-tech environment, this requires making use of specialised research infrastructure based at national research facilities. The foundation will continue to address infrastructure and maintenance needs at national facilities to ensure their sustainability. Other medium term priorities include the coordination of science awareness activities and the upgrading of the Johannesburg Observatory.

Savings and cost effectiveness measures

The foundation has implemented austerity measures to curtail direct and indirect costs of travel by using video conferencing and human resource costs by using increased workflow automation. The foundation will also improve productivity efficiency by implementing the recommendations of the five-year review.

Selected performance indicators

Table 34.24 National Research Foundation

Indicator	Programme/Activity	Past			Current	Projections		
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number of peer reviewed journal articles published per year	Research Innovation Support and Advancement	2 884	5 354	2 753	3 000	3 500	3 500	3 675
Number of learners reached per year	South African Agency for Science and Technology Advancement	305 566	328 546	226 198	199 954	305 000	310 000	325 500
Number of educators reached per year	South African Agency for Science and Technology Advancement	12 875	10 536	12 345	6 071	11 000	11 500	12 075

Table 34.24 National Research Foundation (continued)

Indicator	Programme/Activity	Past			Current	Projections		
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number of grantholders supported by the Research Innovation Support and Advancement programme (excluding Innovation Fund) per year	Research Innovation Support and Advancement	1 716	3 570	2 442	2 235	2 600	2 600	2 730
Number of Student bursaries and scholarships - 3rd year/4th year awarded? per year	Research Innovation Support and Advancement	180	253	286	180	200	200	210
Number of student bursaries and scholarships (BTech/Hons) awarded per year	Research Innovation Support and Advancement	366	260	1,663	1 809	1 410	1 450	1 523
Number of student bursaries and scholarships (Master's) awarded per year	Research Innovation Support and Advancement	938	874	2 203	1 968	2 480	2 300	2 415
Number of student bursaries and scholarships (PhD) awarded per year	Research Innovation Support and Advancement	540	528	1 265	1 201	1 320	1 370	1 439
Number of postdoctoral fellowships awarded per year	Research Innovation Support and Advancement	30	33	255	230	230	250	263
Number of postgraduate students making use of facilities for training per year	National Facilities	570	411	446	298	420	440	462

Details of programmes/activities/objectives

Table 34.25 National Research Foundation

R thousand	Audited outcome			Revised estimate	Medium-term estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Research innovation support and Advancement	582 477	898 878	941 194	1 469 964	1 018 691	985 835	995 339
South African Agency for National Facilities	316 900	345 428	372 301	440 307	506 477	445 928	467 510
Science and Technology Advancement	30 113	36 932	47 684	69 312	51 982	55 137	56 428
Square Kilometer Array	47 433	80 410	74 915	209 063	242 973	177 565	179 756
Total expense	976 923	1 361 648	1 436 094	2 188 645	1 820 122	1 705 602	1 749 463

The total budget for this entity for 2010/11 was R2.2 billion, 67 per cent of which was used in the Research, Innovation, Support and Advancement division.

Research, Innovation, Support and Advancement is primarily engaged with research grant funding and the management of this, together with human capacity development, funding strategic research platforms, strategic knowledge fields development, facilitating strategic national and international partnerships or networks, and researcher rating. This division has a staff complement of 224 employees and a total budget of R1.4 billion in 2010/11.

National Facilities provides highly specialised equipment and infrastructure to researchers. This division has a staff complement of 881 employees and a total budget of R441 million in 2010/11.

South African Agency for Science and Technology Advancement facilitates the promotion of science, education and technology careers, and public engagement with science. The agency has a staff complement of 39 employees and a total budget of R69 million in 2010/11.

The Square Kilometre Array Project: This phase of the project, known as MeerKAT, entails the design, testing and construction of 64 Gregorian offset dishes, and includes the costs of appropriate systems, land, astronomy and site operations, telescope array and site bid, human capacity development and site bid, and communication costs. The project currently has a staff complement of 75 employees and a total budget of R209 million in 2010/11. This investment will provide a leading edge world-class radio astronomy

infrastructure, which will enhance South Africa's bid for the full Square Kilometre Array project, which, if successful, could attract international funding of some R20 billion.

Expenditure estimate

Table 34.26 National Research Foundation

R thousand	Audited outcome			Revised estimate	Medium-term estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Accommodation	0	1 214	1 556	2 012	2 133	2 260	2 396
Audit Fees	0	231	158	250	275	302	332
Books and Journals	8	27	49	328	347	368	390
Computer requisites	385	1 736	1 304	2 403	2 726	2 296	2 241
Conferences	384	1 475	2 079	1 250	1 325	1 404	1 488
Depreciation	1 363	1 594	2 728	2 982	3 671	4 406	5 287
Fees for services	20 665	35 042	18 659	37 238	59 511	19 810	19 364
Grants	4 547	7 747	4 964	79 168	50 516	38 183	34 939
Insurance and licenses	63	4 654	414	2 573	2 727	2 891	2 964
Marketing	177	408	228	679	719	762	808
Other expenses	1 257	1 590	2 804	6 408	798	665	0
Printing and stationery	234	229	559	1 541	1,633	1 731	1 735
Purchases	4 639	1 527	6 623	9 788	37 179	10 288	9 896
Recruitment and training	330	434	839	2 247	2 381	2 524	2 531
Refreshments	51	216	208	308	326	346	366
Repairs and maintenance	127	85	574	1 620	1 717	1 820	1 929
Security	23	18	178	1 476	1 564	1 658	1 757
Subsistence and travel	2 545	5 327	4 709	12 636	16 334	16 631	16 765
Telephone, faxes and postage	270	368	515	3 970	4 208	4 460	4 628
Salaries	10 366	16 485	25 769	40 184	52 883	64 760	69 941
Total expense	47 433	80 410	74 915	209 063	242 973	177 565	179 756

Expenditure estimates

Table 34.27 National Research Foundation

Statement of financial performance				Revised estimate	Medium-term estimate		
R thousand	Audited outcome			2010/11	2011/12	2012/13	2013/14
	2007/08	2008/09	2009/10				
Revenue							
Non-tax revenue	492 329	720 138	819 199	1 531 174	839 288	680 137	783 603
Sale of goods and services other than capital assets	397 340	574 557	703 817	1 453 188	783 886	640 857	742 959
<i>of which:</i>							
<i>Sales by market establishments</i>	25 344	25 344	31 661	43 520	52 307	57 207	61 406
<i>Other sales</i>	371 996	549 213	672 156	1 409 667	731 579	583 651	681 553
<i>Other non-tax revenue</i>	94 989	145 581	115 382	77 987	55 402	39 280	40 644
Transfers received	621 260	715 388	719 290	770 246	1 108 669	1 080 725	1 126 087
Total revenue	1 113 589	1 435 526	1 538 489	2 301 421	1 947 957	1 760 862	1 909 690
Expenses							
Current expense	494 999	595 329	622 226	849 028	831 389	830 325	863 607
Compensation of employees	242 846	287 902	334 947	395 381	430 191	463 662	491 808
Goods and services	223 080	275 839	254 069	412 880	361 868	326 565	330 701
Depreciation	28 649	30 941	32 628	40 455	39 170	39 905	40 898
Interest, dividends and rent on land	424	647	582	312	159	194	200
Transfers and subsidies	481 925	766 319	813 868	1 339 618	988 733	875 276	885 856
Total expenses	976 924	1 361 648	1 436 094	2 188 646	1 820 122	1 705 602	1 749 463
Surplus / (Deficit)	136 665	73 878	102 395	112 775	127 835	55 260	160 227

Table 34.27 National Research Foundation (continued)

R thousand	Audited outcome			Revised estimate	Medium-term estimate		
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Statement of financial position							
Carrying value of assets	240 111	319 552	432 175	595 416	722 826	777 694	937 536
<i>of which: Acquisition of assets</i>	59 768	111 122	146 508	204 493	167 164	95 360	201 326
Investments	48 887	46 141	41 168	38 000	36 000	35 000	35 000
Inventory	2 579	3 926	3 283	4 000	6 000	6 500	7 000
Receivables and prepayments	276 602	264 991	270 060	278 500	295 000	329 200	325 500
Cash and cash equivalents	507 334	756 204	1 313 906	813 115	547 736	525 958	213 056
Assets not classified elsewhere	–	–	–	6 500	3 000	2 800	1 500
Total assets	1 075 513	1 390 814	2 060 592	1 735 531	1 610 561	1 677 152	1 519 592
Accumulated surplus/deficit	(47 280)	(26 936)	50 951	0	0	0	0
Capital and reserves	98 558	447 735	472 243	632 316	757 726	811 594	971 436
Post-retirement benefits	93 630	92 217	106 784	110 200	113 471	116 605	119 589
Trade and other payables	691 594	875 298	1 430 614	71 500	73 286	75 730	80 429
Provisions	–	2 500	–	–	–	–	–
Liabilities not classified elsewhere	239 011	–	–	921 515	666 078	673 223	348 138
Total equity and liabilities	1 075 513	1 390 814	2 060 592	1 735 531	1 610 561	1 677 152	1 519 592
Contingent liabilities	1 340 904	1 557 917	1 686 052	1 200 000	1 100 000	1 000 000	950 000

Expenditure trends

Spending over the MTEF period will be in key investment areas, as well as in compensation of employees and goods and services.

Revenue increased from R1.1 billion in 2007/08 to R2.3 billion in 2010/11, at an average annual average rate of 28 per cent. Over the medium term, revenue is expected to decline to R1.9 billion, due to a decreased amount of parliamentary grants for operational expenditure, as well as the alignment of the funding with the construction ramp up of the Square Kilometre Array project. This will have a corresponding effect on expenditure.

Expenditure increased from R1 billion in 2007/08 to R2.2 billion in 2010/11, at an average annual rate of 31 per cent. This growth is primarily due to the ramping up of key programmes, including the South African Research Chairs Initiative and the Square Kilometre Array project, as well as receipt of top up funding of R255 million for urgent infrastructure needs, national research equipment, broadband rollout to rural universities, and human capacity bursaries and assistance to needy students.

Personnel information

Table 34.28 National Research Foundation

	Post status as at 30 September 2010			Number of posts filled on funded establishment						
	Number of posts on approved establishment	Number of funded posts (establishment)	Number of vacant posts	Actual			Mid-year ¹	Medium-term estimate		
				2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Board members	10	10	-	10	10	10	10	10	10	10
Board members	5	5	-	16	16	5	5	5	5	5
Executive management	24	24	-	99	82	27	24	24	24	24
Senior management	211	211	-	309	298	159	211	211	211	211
Middle management	269	269	-	217	256	579	269	269	269	269
Professionals	631	631	-	264	283	274	631	631	631	631
Semi-skilled	69	69	-	205	209	50	69	69	69	69
Total	1 219	1 219	-	1 120	1 154	1 104	1 219	1 219	1 219	1 219
Compensation (R thousand)				242 846	287 902	334 947	395 381	430 191	463 662	491 808
Unit cost (R thousand)				217	249	303	324	353	380	403

1. As at 30 September 2010.

The National Research Foundation has an establishment of 1 219 posts, all of which are funded. The number of posts filled increased from 1 120 in 2007/08 to 1 219 in 2010/11, and is expected to remain steady over the medium term.

Additional tables

Table 34.A Summary of expenditure trends and estimates per programme and economic classification

Programme	Appropriation		Audited outcome	Appropriation			Revised estimate
	Main	Adjusted		Main	Additional	Adjusted	
R thousand	2009/10		2009/10	2010/11			2010/11
Administration	171 255	173 569	159 123	182 932	2 751	185 683	185 683
Research, Development and Innovation	1 142 883	1 143 393	1 141 349	1 284 040	(457 192)	826 848	826 848
International Cooperation and Resources	131 282	131 963	117 474	135 111	867	135 978	135 978
Human Capital and Knowledge Systems	1 598 038	1 598 974	1 591 356	1 748 671	15 293	1 763 964	1 763 964
Socio Economic Partnerships	1 190 653	1 213 796	1 174 555	1 264 787	(49 277)	1 215 510	1 215 510
Total	4 234 111	4 261 695	4 183 857	4 615 541	(487 558)	4 127 983	4 127 983
Economic classification							
Current payments	334 779	342 390	284 245	361 969	8 120	370 089	370 089
Compensation of employees	192 819	200 160	167 488	214 971	8 720	223 691	223 691
Goods and services	141 960	142 230	116 757	146 998	(600)	146 398	146 398
Transfers and subsidies	3 894 847	3 914 820	3 891 873	4 249 472	(496 650)	3 752 822	3 752 822
Departmental agencies and accounts	2 033 707	2 230 799	2 310 885	2 081 974	184 619	2 266 593	2 266 593
Universities and technikons	-	119 875	113 447	-	32 880	32 880	32 880
Public corporations and private enterprises	581 052	1 204 031	1 183 333	900 637	101 808	1 002 445	1 002 445
Non-profit institutions	1 280 088	360 115	283 506	1 266 861	(815 957)	450 904	450 904
Households	-	-	702	-	-	-	-
Payments for capital assets	4 485	4 485	7 659	4 100	972	5 072	5 072
Machinery and equipment	4 485	4 485	7 659	4 100	972	5 072	5 072
Payments for financial assets	-	-	80	-	-	-	-
Total	4 234 111	4 261 695	4 183 857	4 615 541	(487 558)	4 127 983	4 127 983

Table 34.B Detail of approved establishment and personnel numbers according to salary level¹

Department	Personnel post status as at 30 September 2010			Number of personnel posts filled / planned for on funded establishment						
	Number of posts on approved establishment	Number of funded posts	Number of posts additional to the establishment	Actual			Mid-year ²	Medium-term estimate		
				2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Department	379	379	-	321	339	421	421	421	470	470
Salary level 1 – 6	56	56	-	61	61	57	57	57	63	63
Salary level 7 – 10	104	104	-	86	89	122	122	122	143	143
Salary level 11 – 12	115	115	-	94	103	134	134	134	148	148
Salary level 13 – 16	104	104	-	80	86	108	108	108	116	116
Administration	155	155	-	145	155	219	219	219	249	249
Salary level 1 – 6	40	40	-	40	40	41	41	41	47	47
Salary level 7 – 10	61	61	-	58	61	81	81	81	91	91
Salary level 11 – 12	19	19	-	15	19	48	48	48	58	58
Salary level 13 – 16	35	35	-	32	35	49	49	49	53	53

Table 34.B Detail of approved establishment and personnel numbers according to salary level¹ (continued)

	Personnel post status as at 30 September 2010			Number of personnel posts filled / planned for on funded establishment						
	Number of posts on approved establishment	Number of funded posts	Number of posts additional to the establishment	Actual			Mid-year ²	Medium-term estimate		
				2007/08	2008/09	2009/10		2010/11	2011/12	2012/13
Research, Development and Innovation	41	41	–	36	43	38	38	38	39	39
Salary level 1 – 6	3	3	–	3	3	3	3	3	3	3
Salary level 7 – 10	4	4	–	4	4	4	4	4	4	4
Salary level 11 – 12	16	16	–	16	20	16	16	16	16	16
Salary level 13 – 16	18	18	–	13	16	15	15	15	16	16
International Cooperation and Resources	64	64	–	60	59	61	61	61	69	69
Salary level 1 – 6	4	4	–	6	6	4	4	4	4	4
Salary level 7 – 10	24	24	–	15	15	22	22	22	26	26
Salary level 11 – 12	20	20	–	25	24	19	19	19	20	20
Salary level 13 – 16	16	16	–	14	14	16	16	16	19	19
Human Capital and Knowledge Systems	56	56	–	33	36	43	43	43	46	46
Salary level 1 – 6	4	4	–	7	7	3	3	3	3	3
Salary level 7 – 10	5	5	–	2	2	6	6	6	8	8
Salary level 11 – 12	31	31	–	15	18	22	22	22	23	23
Salary level 13 – 16	16	16	–	9	9	12	12	12	12	12
Socio Economic Partnerships	63	63	–	47	46	60	60	60	67	67
Salary level 1 – 6	5	5	–	5	5	6	6	6	6	6
Salary level 7 – 10	10	10	–	7	7	9	9	9	14	14
Salary level 11 – 12	29	29	–	23	22	29	29	29	31	31
Salary level 13 – 16	19	19	–	12	12	16	16	16	16	16

1. Data has been provided by the department and may not necessarily reconcile with official government personnel data.

2. As at 30 September 2010.

Table 34.C Summary of expenditure on training

	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2007/08	2008/09	2009/10		2010/11	2011/12	2012/13
Compensation of employees (R thousand)	102 077	141 585	167 488	223 691	225 251	237 551	259 557
Training expenditure (R thousand)	1 667	2 023	3 219	5 120	5 377	5 646	5 940
Training as percentage of compensation	1.6%	1.4%	1.9%	2.3%	2.4%	2.4%	2.3%
Total number trained in department (head count)	127	141	180	117			
<i>of which:</i>							
Employees receiving bursaries (head count)	41	46	131	185			
Learnerships trained (head count)	–	–	–	–			
Internships trained (head count)	–	–	22	22			
Households receiving bursaries (R thousand)	–	–	–	–	–	–	–
Households receiving bursaries (head count)	–	–	–	–			

Table 34.D Summary of donor funding

Donor	Project	Departmental programme name	Amount committed	Main economic classification	Spending focus	Audited outcome			Estimate	Medium-term expenditure estimate		
						2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R thousand												
Foreign In cash												
Australian Agency for International Development	Postgraduate mentor bursary programme, and South African National Energy Research Institute	Research, Development and Innovation	186	Departmental agencies and accounts	Provide opportunities for collaboration in energy research projects, in particular for student exchanges. Formalise a memorandum of understanding with the Australian Commonwealth Scientific and Research Organisation	186	-	-	-	-	-	-
European Union	Sector budget support	Socio Economic Partnerships	300 000	Departmental agencies and accounts	Contribute to South Africa's economic and social development through programmes and measures designed to reduce poverty and encourage economic growth which benefits the poor	-	-	108 000	78 000	95 000	100 000	-
Finland	South Africa-Finland cooperation framework	International Cooperation and Resources	30 000	Departmental agencies and accounts	Support the development of provincial and local systems of innovation, especially in Eastern Cape, Gauteng and Western Cape	10 000	10 000	10 000	-	-	-	-
Finland	South Africa-Finland knowledge partnership on ICT	International Cooperation and Resources	30 000	Departmental agencies and accounts	Narrow the digital divide through interventions that will help South Africa become an inclusive knowledge society with a strong ICT brand, reflecting research excellence and demonstrating improvements in quality of life and economic competitiveness	-	-	10 000	10 000	10 000	-	-
Finland	Southern Africa-Finland partnership to strengthen NEPAD and the Southern African network for bioscience	International Cooperation and Resources	30 000	Goods and services	Strengthen the Southern Africa biosciences network secretariat, develop the operating environment, provide capacity development, and create and disseminate networks	-	-	10 000	10 000	10 000	-	-

Table 34.D Summary of donor funding (continued)

Donor	Project	Departmental programme name	Amount committed	Main economic classification	Spending focus	Audited outcome			Estimate	Medium-term expenditure estimate		
						2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R thousand												
France	Partnership on in vitro screening of inhibitors to plasmodium falciparum glutathione s-transferase	Research, Development and Innovation	150	Goods and services	Finalise joint work on the drug development platform	-	150	-	-	-	-	-
United States Agency for International Development	SADC capacity building in relation to the risk and vulnerability atlas	Socio Economic Partnerships	1 168	Departmental agencies and accounts	Build capacity in SADC member states on understanding climate change impact and risk in the context of the SADC early warning mechanisms	-	-	244	244	244	-	-
United States Agency for International Development	Development of potato seed in Malawi	Research, Development and Innovation	488	Departmental agencies and accounts	Provide technical assistance to Malawi government and higher education sector to increase production of good quality seed of high yielding potato varieties	-	-	348	-	-	-	-
Australia	Departmental study tours to Australian research institutions (support to the University of Cape Town)	Human Capital and Knowledge Systems	181 700	Goods and services	Transfer knowledge on compound library and participation in international mining processing	-	-	-	181 700	-	-	-
Australia	Regional support for training and framework development	International Cooperation and Resources	3 000 000	Goods and services	Facilitate science and technology policy training and the development of a science and technology climate change framework	-	-	-	3 000 000	-	-	-
In kind												
Canadian International Development Agency	Epidemiological modelling for HIV and AIDS policy in South Africa	Research, Development and Innovation	20 000	Foreign governments and international organisations	Incorporate improved region, age and gender specific epidemiological measures into routine surveillance. Impact key policy decisions. Increase capacity of (especially young) South African researchers to perform gender sensitive, policy impacting, epidemiological research	-	1 236	4 227	4 870	4 718	4 949	4 949

Table 34.D Summary of donor funding (continued)

Donor	Project	Departmental programme name	Amount committed	Main economic classification	Spending focus	Audited outcome			Estimate	Medium-term expenditure estimate		
						2007/08	2008/09	2009/10		2010/11	2011/12	2012/13
						R thousand						
Japan International Cooperation Agency	African initiative for capacity development	International Cooperation and Resources	6 800	Foreign governments and international organisations	Assist with creating and implementing the African initiative for capacity development , and with designing and implementing pilot projects	1 700	1 700	1 700	1 700	1 700	1 700	1 700
Japan International Cooperation Agency	Science centre senior volunteers in Limpopo	Human Capital and Knowledge Systems	6 000	Foreign governments and international organisations	Support science centres to develop teaching material for science and mathematics education, and develop exhibitions	1 500	1 500	1 500	1 500	1 500	1 500	1 500
Japan International Cooperation Agency	Science centre senior volunteers in Eastern Cape	Human Capital and Knowledge Systems	2 000	Foreign governments and international organisations	Support science centres to develop teaching material for science and mathematics education, and develop exhibitions. Systematise newly developed exhibitions to enhance knowledge gained by science centres	-	1 000	1 000	-	-	-	-
Japan International Cooperation Agency	Technical assistant	International Cooperation and Resources	6 800	Goods and services	Improve bilateral relationships with the Japanese national system of innovation	1 700	1 700	1 700	-	-	-	-
Japan International Cooperation Agency	Productivity training	Human Capital and Knowledge Systems	700	Goods and services	Increase employability level of science and technology graduates	200	500	-	400	-	-	-
Japan International Cooperation Agency	Climate change regional conference	International Cooperation and Resources	600	Goods and services	Support the SADC climate change agenda, through workshops and publishing reports	-	600	-	-	-	-	-
Japan International Cooperation Agency	Science centre baseline study on learning material	Human Capital and Knowledge Systems	200	Goods and services	Provide quality baseline data on learning materials available in science centres, and recommend standardisation of learning material	-	200	-	-	-	-	-
Japan International Cooperation Agency	African initiative for capacity development	International Cooperation and Resources	200	Goods and services	Provide logistical and administrative support for the African initiative for capacity development technical assistant	-	200	-	-	-	-	-

Table 34.D Summary of donor funding (continued)

Donor	Project	Departmental programme name	Amount committed	Main economic classification	Spending focus	Audited outcome			Estimate	Medium-term expenditure estimate		
						2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R thousand												
Japan International Cooperation Agency	Intellectual property management training	Research, Development and Innovation	1 200	Goods and services	Build South African capacity in intellectual property rights management	-	1 200	-	-	-	-	-
Australian Agency For International Development	Science centre manager training	Human Capital and Knowledge Systems	862	Departmental agencies and accounts	Train 20 South African and 5 Lesotho science centre managers, in South Africa initially and then in Australia, in a certificate course for science centre managers	-	-	584	584	584	-	-
Australian Agency For International Development	Third SADC workshop on indigenous knowledge	Human Capital and Knowledge Systems	348	Foreign governments and international organisations	Establish regional guidelines and frameworks for the implementation of the 2007-2009 action plan	-	862	-	-	-	-	-
Japan International Cooperation Agency	Climate simulation and projections for adaptation impact in Southern African region	Socio Economic Partnerships	30 000	Foreign governments and international organisations	Build capacity in ocean atmosphere coupled circulation models in Southern Africa, and translate into an early warning system	-	-	10 000	10 000	10 000	-	-
Japan International Cooperation Agency	Observational study to mitigate seismic risks in mines	Socio Economic Partnerships	12 800	Foreign governments and international organisations	Improve accuracy of predicting and controlling seismicity and earthquakes	-	-	3 200	3 200	3 200	3 200	3 200
Germany	Technical assistant	International Cooperation and Resources	838	Goods and services	Improve bilateral relationships with the German national system of innovation	-	449	389	-	-	-	-
Germany	Financial assistance towards Academy of Sciences for the Developing World	Human Capital and Knowledge Systems	1 000	Departmental agencies and accounts	Host multilateral conference to promote scientific excellence in the South, focusing on science based sustainability	-	1 000	-	-	-	-	-
France	French South African Graduate School in Electronic and Electrical Engineering	Human Capital and Knowledge Systems	14 850	Foreign governments and international organisations	Extend contract of scientific director of French South African Graduate School in Electronic and Electrical Engineering programme, at Tshwane University of Technology and Cape Peninsular University of Technology	-	-	4 950	4 950	4 950	-	-

Table 34.D Summary of donor funding (continued)

Donor	Project	Departmental programme name	Amount committed	Main economic classification	Spending focus	Audited outcome			Estimate	Medium-term expenditure estimate		
						2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
R thousand												
Canada	Research chair management training	Human Capital and Knowledge Systems	328	Foreign governments and international organisations	Train and transfer knowledge to South African research chair managers	-	-	328	-	-	-	-
Japan International Cooperation Agency	Science centre senior volunteers in North West	Human Capital and Knowledge Systems	2 000 000	Foreign governments and international organisations	Train science centre senior volunteers in North West	-	-	1 000 000	1 000 000	1 000 000	1 000 000	-
Total			5 679 218			15 286	22 297	1 168 170	4 307 148	1 141 896	1 111 349	11 349

Table 34.E Summary of expenditure on infrastructure

Project name	Service delivery outputs	Current project stage	Total project cost	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate			
				2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
R thousand											
Infrastructure transfers to other spheres, agencies and departments											
Square Kilometer Array	Construction of Telescopes	Construction	1 381 402	80 000	264 264	490 293	-	-	218 738	328 107	
Space Infrastructure	Satellite Construction	Construction	290 791	20 000	14 199	36 403	51 390	55 153	55 437	58 209	
Hydrogen Strategy	Purchase of equipment	Various	440 714	10 000	40 500	44 229	48 361	51 903	54 498	57 223	
National Nanotechnology Centres	Equipping Centres	Various	309 954	-	-	34 905	38 337	42 400	44 520	46 746	
South African National Research Network	Broadband connectivity	Various	883 190	162 000	89 000	93 474	98 783	104 710	99 946	104 943	
Total			3 306 051	272 000	407 963	699 304	236 871	254 166	473 139	595 228	



**ESTIMATES
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