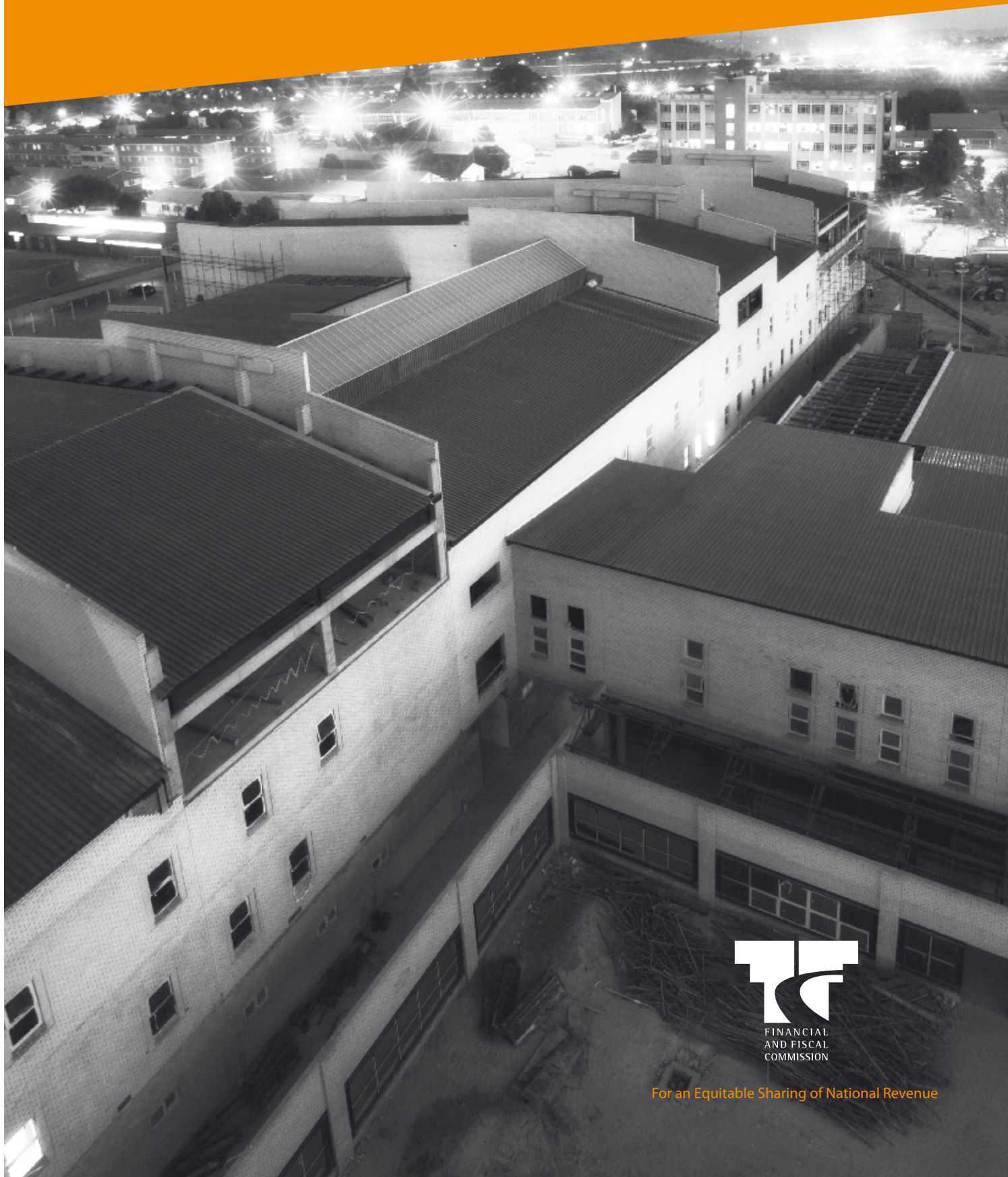


Technical Report:
Annual Submission on the Division of Revenue
2010/11



FINANCIAL
AND FISCAL
COMMISSION

For an Equitable Sharing of National Revenue

Financial and Fiscal Commission

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Annual Submission on the
Division of Revenue 2010/11

August 2009

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For an Equitable Sharing of National Revenue

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For an Equitable Sharing of National Revenue

Table of Contents



ACRONYMS	viii
TABLES	x
FIGURES	xii
EDITORIAL	xiii
CHAPTER 1: REVIEW OF THE PROVINCIAL EQUITABLE SHARE FORMULA	1
1.1 Background	1
1.2 Objectives	2
1.3 Methodology	2
1.4 Key results and discussion	3
1.4.1 Legislative framework underpinning the provincial equitable share	3
1.4.2 Public finance principles underlying intergovernmental grant design	3
1.4.3 The Provincial equitable Share formula	4
1.4.4 The Current status of provincial finances and the provincial equitable share	6
1.4.5 Fundamental challenges with the current design of the intergovernmental fiscal system	7
1.4.6 Institutional failures of the intergovernmental fiscal relations system	8
1.4.7 Issues in the design of the formula	9
1.4.8 Perspectives on the Reform of PES System	11
1.5 Conclusions and recommendations	11
1.6 References	13
1.6.1 References cited in report	13
1.6.2 List of other publications produced by project	13
1.7 Annexure A	12
1.7.1 Methodologies for quantifying expenditure needs	13
1.7.2 Measures of fiscal capacity	15

CHAPTER 2: PUBLIC INFRASTRUCTURE INVESTMENT	17
2.1 Background	17
2.2 Overview of institutional issues around infrastructure	17
2.2.1 Institutions supporting infrastructure	17
2.2.2 Funding infrastructure	19
2.2.3 Infrastructure delivery performance	22
2.2.4 Monitoring infrastructure and institutional capacity	27
2.3 Literature Review	28
2.3.1 The International Literature	28
2.3.2 The South African Literature	30
2.3.3 Summary and Lessons Learnt	31
2.4 Methodology	31
2.4.1 The CGE Model Structure	32
2.4.2 Specificities of the Model	32
2.4.3 Macroeconomic Closure Rules	32
2.4.4 Elasticities	33
2.4.5 How does the model work?	34
2.5 Key results and discussion	34
2.6 Conclusions and recommendations	39
2.7 References	40
2.7.1 References cited in report	40
2.7.2 List of other publications produced by project	41
CHAPTER 3: EFFICIENCY AND EQUITY EFFECTS OF SOCIAL GRANTS	43
3.1 Introduction	43
3.2 South Africa's Social Security Framework	43
3.3 The Constitutional framework	56
3.4 Social security administration	57
3.5 International perspectives on social grants	58
3.5.1 OECD Countries	58
3.5.2 Developing Countries	61
3.6 Effects of social security in South Africa	63
3.6.1 Theory of the household	63

3.6.2	Social security and poverty	63
3.6.3	Social security and the labour market	66
3.6.4	Other incentive effects of social security	67
3.7	The magnitude and impact of grants: Some quantitative dimensions	68
3.7.1	The child support grant	68
3.7.2	Demographic characteristics	74
3.7.3	Household characteristics	76
3.7.4	Labour market	79
3.7.5	Hunger	80
3.7.6	Living standards	81
3.7.7	Income and expenditure	81
3.7.8	Incentive effects of the CSG	84
3.8	Conclusions	85
3.9	References	85
3.9.1	References cited in report	85
3.9.2	List of other publications produced by project	88
CHAPTER 4:	PERFORMANCE OF PUBLIC HOSPITALS	89
4.1	Background	89
4.2	Objectives	89
4.3	Methodology	89
4.4	Key results and discussion	90
4.4.1	The Constitutional Framework and Public Hospitals Administration	90
4.4.2	The budget framework	92
4.4.3	Financial resources in the provision of public health care	92
4.5	Conclusions and recommendations	96
4.5.1	Conclusions	96
4.5.2	Recommendations	96
4.6	References	97
4.6.1	References cited in report	97
4.6.2	List of other publications produced by project	98

CHAPTER 5:	RENTAL HOUSING	99
5.1	Background	99
5.2	Objectives	100
5.3	Methodology	100
5.4	Key results and discussion	100
5.4.1	Rental housing in South Africa	100
5.4.2	Policy developments and legislation	103
5.4.3	Funding rental housing	104
5.4.4	Factors hampering delivery and development of rental housing in South Africa	106
5.5	Conclusions and recommendations	108
5.5.1	Conclusions	108
5.5.2	Recommendations	108
5.6	References	108
5.6.1	References cited in report	108
5.6.2	List of other publications produced by project	108
CHAPTER 6:	MANAGEMENT AND FINANCING OF ROAD INFRASTRUCTURE	111
6.1	Background	111
6.2	Objectives	112
6.3	Methodology	112
6.4	Key results and discussion	112
6.4.1	Financing and administration of roads	112
6.4.2	Key challenges in the current system of funding and administration	116
6.4.3	Addressing key challenges in funding and administration of road infrastructure	121
6.5	Conclusions and recommendations	123
6.5.1	Conclusions	123
6.5.2	Recommendations	124
6.6	References	125
6.6.1	References cited in report	125
6.6.2	List of other publications produced by project	126

CHAPTER 7:	ASSESSMENT OF UNIVERSAL ACCESS TO WATER AND SANITATION SERVICES	127
7.1	Background	127
7.2	Objectives	127
7.3	Methodology	127
7.4	Key results and discussion	128
7.4.1	South Africa's water supply framework	128
7.4.2	Balancing government control and independence of the water regulator	130
7.4.3	Water pricing and fiscal instruments	131
7.4.4	An analysis of Free Basic Water policy	135
7.5	Conclusions and recommendations	137
7.5.1	Conclusions	137
7.5.2	Recommendations	137
7.6	References	138
7.6.1	References cited in report	138
7.6.2	List of other publications produced by project	139
CHAPTER 8:	ASSESSMENT OF THE INSTITUTIONAL AND FISCAL CAPACITY SUPPORT MECHANISMS OF LOCAL GOVERNMENT	141
8.1	Background	141
8.2	Objectives	142
8.3	Methodology	142
8.4	Key results and discussion	142
8.4.1	Capacity Building or Development: Theoretical Framework	142
8.4.2	Contextualising capacity challenges within local government	144
8.4.3	Approaches to capacity building in South Africa	150
8.4.4	Capacity-building assessment	152
8.4.5	Government financing of municipal capacity building	153
8.4.6	Performance assessment of local government capacity-building programmes and grants	154
8.5	Conclusion and recommendations	158
8.5.1	Conclusion	158
8.5.2	Recommendations	158
8.6	References	159
8.6.1	References cited in report	159
8.6.2	List of other publications produced by project	160

Acronyms

ABET	Adult Basic Education and Training
AFDC	Aid to Families with Dependent Children
AFS	Annual Financial Statements
AMPS	All Media and Products Survey
ASGISA	Accelerated and Shared Growth Initiative for South Africa
AusAid	Australian Aid
Capex	Capital Expenditure
CCT	Conditional Cash Transfer
CGE	Computable General Equilibrium Model
CMA	Catchment Management Agency
CMTF	Consolidated Municipal Transformation program
CPI	Consumer Price Index
CRUs	Community Rental Units
CSG	Child Support Grant
CWSS	Community Water and Sanitation Services
DBSA	Development Bank of Southern Africa
DFID	Department of International Development
DG	Disability Grant
DMTN	Domestic Medium Term Note
DoE	Department of Education
DoT	Department of Transport
DPLG	Department of Provincial and Local Government
DPW	Department of Public Works
DRZ	Designated Restructuring Zones
DSD	Department of Social Development
DWAF	Department of Water Affairs and Forestry
EITC	Earned Income Tax Credit
EMS	Emergency Medical Services
ENERGYS	Engineers Now to Ensure Roll-out by Growing Young Skills
EPWP	Expanded Public Works Programme
EU	European Union
FCG	Foster Care Grant
FIFA	Fédération Internationale de Football Association
FFC	Financial and Fiscal Commission
FMG	Financial Management Grant
GDP	Gross Domestic Product
GHS	General Household Survey
GSDM	Greater Sekhukhune District Municipality
HAART	Highly Active Antiretroviral Treatment
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
IES	Incomes and Expenditure Survey
IHHSD	Integrated Housing and Human Settlement Development Grant
IGP	Infrastructure Grant for Provinces
ISRDP	Integrated Sustainable Rural Development Program
IWRM	Integrated Water Resources Management
LED	Local Economic Development
LES	Local Government Equitable Share
LGTP	Local Government Transformation Programme
LGNET	Local Government Network
LGRC	Local Government Resource Centre
LGSETA	Local Government Sector Education and Training Authority
LGSP	Local Governance Support Programme
MDGs	Millennium Development Goals
MFMTAP	Municipal Finance Management Technical Assistance Programme



MIG	Municipal Infrastructure Grant
MSIG	Municipal Systems Improvement Grant
MSP	Municipal Support Program
MTEF	Medium-Term Expenditure Framework
MTBPS	Medium-Term Budget Policy Statement
NALEDI	National Labour and Economic Development Institute
NCBF	National Capacity-Building Framework
nDoH	National Department of Housing
NDoH	National Department of Health
nDoT	National Department of Transport
NERSA	National Energy Regulator of South Africa
NGO	Non Governmental Organisation
NRB	National Roads Board
NRF	National Road Fund
NSDP	National Spatial Development Plan
NTC	National Transport Commission
OECD	Organisation for Economic Cooperation and Development
PALAMA	Public Administration Leadership and Management Academy
PES	Provincial Equitable Share
PFMA	Public Finance Management Act
PHC	Primary Health Care
PIG	Provincial Infrastructure Grant
PLTF	Provincial Land Transport Framework
PPP	Public Private Partnerships
PRWORA	Personal Responsibility and Work Opportunity Act
PTIS	Public Transport Infrastructure and Systems Grant
RDP	Reconstruction and Development Programme
RHA	Rental Housing Act
SAICE	South African Institute of Civil Engineers
SALGA	South African Local Government Association
SANRAL	South African National Road Agency Ltd
SARCC	South African Rail Commuter Corporation
SASSA	South African Social Security Agency
SDA	Service Delivery Agreement
SDF	Service Delivery Facilitator
SETA	Sector Education and Training Authority
SH	Social Housing
SHA	Social Housing Act
SHF	Social Housing Foundation
SHIs	Social Housing Institutions
SHRA	Social Housing Regulatory Authority
SHRCG	Social Housing Restructuring Capital Grant
SOCPEN	Social Pension System
SSP	Sector Skills Plan
StatsSA	Statistics South Africa
TANF	Temporary Assistance to Needy Families
UIF	Unemployment Insurance Fund
URP	Urban Renewal Programme
USAID	United States Agency for International Development
WHO	World Health Organisation
WISA	Water Institute of South Africa
WMA	Water Management Areas
WMI	Water Management Institutions
WSSCU	Water Sector Support Coordinating Unit

Tables

Table 1: Distribution of PES by province	6
Table 2: Sources of provincial revenue	7
Table 3: 2008 MTEF: Infrastructure expenditure estimates	21
Table 4: National consolidated infrastructure budgets and expenditure as at 31 March 2007	22
Table 5: National consolidated infrastructure budgets and expenditure as at 31 March 2007	23
Table 6: Percentage of Provincial Education expenditure	24
Table 7: Condition of school infrastructure by province	25
Table 8: Percentage of Provincial health expenditure	25
Table 9: Provincial health expenditure by function	26
Table 10: Growth rates in national transfers to local governments 2004/05 to 2010/11 (%)	26
Table 11: Infrastructure transfers to local government, 2003/04 – 2009/10	27
Table 12: The impact of an increase in the stock of public capital on output	29
Table 13: The impact of an increase in the stock of public capital on output in South Africa	30
Table 14: Macroeconomic effects of a 10% increase in water infrastructure	35
Table 15: Welfare effects of a 10% increase in water infrastructure (per cent)	35
Table 16: Macroeconomic effects of a 10% increase in health infrastructure	36
Table 17: Macroeconomic effects of a 10% increase in electricity infrastructure	37
Table 18: Macroeconomic effects of a 10% increase in roads and transport infrastructure	38
Table 19: Welfare effect of a 10% increase in roads and transport infrastructure (per cent)	38
Table 20: Welfare effect of a 10% increase in communications infrastructure (per cent)	39
Table 21: Beneficiaries of social assistance grants (1998-2008)	46
Table 22: A life course social security framework	48
Table 23: Elements of the South African social security framework	48
Table 24: Concentration indices for social programmes (1995-2000)	52
Table 25: Monthly amount of each type of grant (Rand)	69
Table 26: Number of beneficiaries of each type of grant	70
Table 27: The child support grant in South Africa	72
Table 28: Number of individuals and households receiving child support grants	73
Table 29: Demographic profile of the recipients and non-recipients of child support grants of eligible age	75
Table 30: Percentage of eligible children receiving child support grants by demographic characteristics	77
Table 31: Household characteristics of the recipients and non-recipients of child support grants at eligible ages	78
Table 32: Percentage of eligible children receiving child support grants by household characteristics	79
Table 33: Labour market characteristics of the recipients and non-recipients of child support grants	80
Table 34: Household child and adult hunger frequency by the recipients and non-recipients of child support grants at eligible ages	81

Table 35: Percentage of eligible children receiving child support grants by living conditions	82
Table 36: Household income and expenditure information by child support grant receipt status	83
Table 37: Percentage of eligible children receiving child support grants by monthly household expenditure	83
Table 38: CSG coverage by earnings decile of the employed	83
Table 39: Budget and spending trends of programmes on provincial health budgets	93
Table 40: Proportion of total provincial health budgets allocated to public hospitals	94
Table 41: Hospital revitalization conditional grant to provincial health departments	95
Table 42: National tertiary services conditional grant to provincial health departments	96
Table 43: Key attributes of the CRU and SH programmes	103
Table 44: National targets for CRU and SH Programmes	103
Table 45: Rental housing target by programme type and funding	104
Table 46: Total length of road infrastructure network in South Africa	113
Table 47: Comparison of roads expenditure against priorities	119
Table 48: Summary of technical skills in provincial roads sector	120
Table 49: Estimated skill profile of municipal road-related human capital	121
Table 50: The Institutional Framework of the Water Sector in South Africa	129
Table 51: Economic and social statuses of different categories of municipalities	145
Table 52: Number of filled and vacant section 57 position by province (2007)	146
Table 53: Free basic service access by types of municipalities (2006 and 2007)	148
Table 54: Percentage of municipalities with credible budgets	150
Table 55: Past and recent capacity-building programmes by duration	152
Table 56: Capacity-building transfers to local government 2004/05-2010/11	153
Table 57: Capacity-building programmes against municipal capacity constraints	156
Table 58: Impact of capacity-building programmes (narrative reports)	157

Figures

Figure 1: Flow of intergovernmental infrastructure transfers	20
Figure 2: Real value of the maximum annual social pension (1979 – 2003)	45
Figure 3: General government spending on social protection (1983/84 – 2005/06)	46
Figure 4: Cash-flow of the social security funds (1991/92 – 2007/08)	47
Figure 5: Social assistance spending as % of GDP (western Europe 1980; SA 2006)	47
Figure 6: Lorenze curve and concentration for social grants (1997)	51
Figure 7: Concentration curves for social spending programmes (2000)	52
Figure 8: Concentration indices for various social grants (2000)	53
Figure 9: Geographical distribution of social spending and the population (1997)	53
Figure 10: Cumulative density functions for certain groups (1995)	54
Figure 11: The operation of the means test for the old-age pension (2008)	55
Figure 12: Poverty rates for households and individuals (2005)	64
Figure 13: Poverty headcount rates based on AMPS data (1994-2006)	65
Figure 14: Percentage contribution of spending on each type of social grant to total spending on social grants	69
Figure 15: Number of beneficiaries of the child support grant	70
Figure 16: Percentage change in the rand value of the child support grant in 2000 prices versus the inflation rate	71
Figure 17: The number of child support grant recipients of eligible age (a comparison of figures in the General household surveys and official figures released by Department of Social Development)	73
Figure 18: Child support grant coverage rates for different eligible age groups	74
Figure 19: Proportion of eligible children receiving child support grants, by broad employment status of household head	80
Figure 20: CSG coverage rates in households by earnings decile of the employed	84
Figure 21: Real growth in allocations to public health care	92
Figure 22: Real growth in allocations to public health care	94
Figure 23: Real growth within the various types of public hospital programmes	95
Figure 24: Households renting over time	101
Figure 25: Rental dwelling type over time	101
Figure 26: Projected additional households renting – 2005 to 2012	102
Figure 27: Flow of funding between key role-players within CRU Programme	105
Figure 28: Sources of funds for the national (non-toll) road network	114
Figure 29: Sources of funds for the provincial road network	115
Figure 30: Funding streams for municipal provincial road network	116
Figure 31: Road investment indicators, 1999/00 – 2009/10	117
Figure 32: Condition of surfaced roads in South Africa, 1998 – 2008	117
Figure 33: Roads coordinating body	124
Figure 34: Demand for Water per various water user sectors in South Africa	132
Figure 35: Municipal Infrastructure grant components	134
Figure 36: Percentage of households with access to piped water by province	135
Figure 37: Percentage of households with access to a flush toilet by province	136
Figure 38: Integrated effect of capacity building process	143
Figure 39: Service access by different type of municipality (2006)	148

Editorial



The Financial and Fiscal Commission provides independent and impartial advice and recommendations on intergovernmental fiscal relations including the technical evaluation and design of provincial and local fiscal and economic policy. Established by the Constitution of South Africa in 1994, the Commission helps provide information to all organs of state so that they can make informed decisions about complex fiscal issues.

One of the main objectives of the Commission in this respect is to help inform the following year's budget by making recommendations on the division of revenue among the three spheres of government. The Commission does this by submitting annually an advisory document to parliament summarising the recommendations for the relevant following year that should be taken into account when the executive crafts the next budget. This submission for the Division of Revenue is made in terms of Section 214 (2) and Section 229 (5) of the Constitution, and Section 9 of the Intergovernmental Fiscal Relations Act of 1999. The Commission has submitted this document every year without fail since 2000.

In May 2009 the Commission launched to Parliament its latest Submission Document for the Division of Revenue 2010/11. This volume of technical research reports is published as a companion document to that Submission Document for the Division of Revenue 2010/11. It collects together the technical papers supporting the major findings and recommendations of the 2010/11 Annual Submission Document. They are organised into eight distinct chapters as follows.

In Chapter 1, **Eddie Rakabe, James Alm and Jorge Martinez-Vazquez** document the work and findings of recent efforts undertaken to review the Provincial Equitable Share. The Provincial Equitable Share (PES) formula is a transfer mechanism that distributes funds among provinces on the bases of demographic and economic profile. The current design and structure of the formula was initially proposed by the Financial and Fiscal Commission in the Framework Document for Intergovernmental Fiscal Relations in South Africa (Financial and Fiscal Commission, 1995). The basic premise underlying the formula is the constitution which entitles each sphere of government to an equitable share of nationally raised revenue. This enables the various spheres of government to deliver constitutionally mandated services or functions. The design and application of the provincial equitable share formula has critical implications for the delivery of social services and other functions allocated to provinces in South Africa. Over the years since inception the formula has been subjected to several reviews in response to the evolving nature of the Intergovernmental fiscal framework. Amongst other the reviews include removal of the backlog component in 2002 and the devolution of social grant administration to a national agency in 2004. Other minor reviews include updating of data resulting from exogenous (outside the fiscal framework) policies such the re-demarcation of provincial boundaries. In all these instances there have been pressing issues that have been raised by all key stakeholders with respect to what can be achieved by the formula against the criteria that the horizontal division of revenue must satisfy as outlined in the Constitution Section 214 (2) a-j. Subsequent to the 2004 shifting of the social security function, Budget Council requested that the PES should be comprehensively reviewed. The review was requested against the background of increased concerns from some provinces relating to among others the formula's ability/inability to redirect resources to poorer provinces, appropriateness of indicators (measurement) and the relevant weights assigned to formula components, reliance of the formula on demographic variables as well as response or lack thereof to demographic changes due migration patterns. To this end this Chapter evaluates the performance of the formula with respect to some of the principles underlying intergovernmental grant design and stated policy objectives of government. The Chapter argues that the weakness of the formula not only lies in its design and structure but also the ambiguities in the design and implementation of expenditure assignments, revenue assignments, conditional grants, and possibly borrowing.

Chapter 2 by **Ramos Mabugu, Margaret Chitiga and Eddie Rakabe** uses a computable general equilibrium model to investigate the effects of public investment in South Africa. The simulation results indicate that tax-financed increases in public spending on infrastructure have similar macroeconomic results. Gross domestic product increases as consumption and investment increase. On sectoral effects, output of the affected sectors increase as capital

increases and the sectors with strong backward and forward linkages are also affected. Furthermore, economic and welfare effects analysis shows that the impact depends on the nature of factor markets. As capital increases, labour becomes relatively scarce and its value increases in the capital intensive sectors. In the labour intensive sectors, that type of labour that is used intensively sees a fall in its wages when there is an injection of capital. These differential effects mean that household effects also differ between rural and urban areas. Generally though, overall household welfare improves with these policies. The Chapter makes several recommendations aimed at increasing the quantum and quality of investment as well as addressing institutional deficiencies identified.

Chapter 3 by **Servaas van der Berg, Krige Siebrits and Bongisa Lekezwa** looks at the efficiency and equity effects of social grants. The Chapter confirms that South Africa has a well-developed social assistance system that is exceptionally large by middle-income country standards. South Africa's social grants are very well targeted and have a significant mitigating impact on poverty. Considerable uncertainty remains about some of the incentive effects of these grants, but it is becoming increasingly clear that they influence the behaviour of recipients and potential recipients in variety of ways, not all of which are necessarily benign. The emergence of firm evidence, or even sufficiently strong perceptions, of widespread perverse incentives resulting from social assistance schemes may raise the attractiveness to South African decision makers of programmes such as workfare and conditional cash transfers. In other countries, such programmes have shown promising signs of the ability to simultaneously alleviate poverty and incentivise desired behaviour. Important aspects of their longer-term impacts remain unclear, however, and their applicability in South Africa would depend crucially on contextual factors such as the availability of work opportunities for workfare participants and the ability of educational and health care institutions to participate effectively in conditional cash transfer programmes. The authors conclude by pointing out that there is much scope for further research on the potential of these and other innovative social assistance schemes in the South African context.

Nomonde Madubula and Sasha Poggenpoel tackle the issue of performance of public hospitals in Chapter 4. Along with clinics and community health centres, hospitals play an important role in providing a comprehensive package of public health care services to South Africans. In addition they also provide a training ground for potential health professionals. An array of factors contributes to the overall performance of hospitals. These include the adequacy of the funding they receive; the quality of the services they provide; their ability to attract and retain suitably skilled personnel, the existence and upkeep of well functioning equipment or facilities and lastly, the way in which all these factors are pulled together – that is – the management of hospitals. All these issues are discussed in the chapter.

In Chapter 5, **Sabelo Mtantato and Sasha Poggenpoel** address rental housing. Housing is one of the basic needs for any community and is fundamental for quality of life as it provides shelter. In South Africa, the right to housing is enshrined in Section 26 of the Bill of Rights, which states that “Everyone has the right to have access to adequate housing...” and “The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right” (Republic of South Africa (RSA), 1996). It is also important to note that housing need may be fulfilled through ownership or through rental. Worldwide there is a consensus that a good housing system is one that provides a balance between ownership and rental opportunities. The government of South Africa has an objective of eradicating informal settlement and has made progress in the provision of housing especially for the poor since 1994. Since 1994, the government has provided about 2.6 million subsidized houses however; backlogs in housing persist and by 2008 it was estimated at 2.1 million units. The 2005 Social Housing Policy for South Africa highlighted an imbalance between ownership and rental in the housing sector within South Africa. The skewed preference in the delivery, ownership and occupation of houses needs to be addressed. Data from the General Household Survey (GHS) indicates that there has been a continuous increase in the number of households that are renting between 2001 and 2006. According to this survey the number of households renting has increased by approximately 5 percent between 2001 and 2006. On the other hand a percentage of households with single houses on separate stands have been declining since 2004. This trend has been associated with an increase in shacks and backyard dwellings. It is predicted that the demand for rental accommodation is likely to increase across municipalities although the extent differs. On the supply side government intends to deliver 100 000 rental housing units target from 2007-2012. The Chapter identified factors hampering delivery and development of housing opportunities within the public rental housing sector in South Africa. Recommendations relating to aspects of policy, the legislative environment, funding and institutional arrangements are made. There are other additional recommendations that have been made to improve the availability of data and improved reporting.

Hammed Amusa, Denver Kallis and Sabelo Mtantato address management and financing of road infrastructure in Chapter 6. South Africa's road infrastructure remains the most developed on the African continent. However,

years of underinvestment in maintenance and rehabilitation has led to significant deterioration in its road network, particularly at sub-national levels. The Chapter reveals that underinvestment is a result of challenges related to funding and institutional arrangements relating to the provision of this service. In particular, current resource flows and funding arrangements appear inadequate and weak to tackle an ever increasing backlogs plus high demands placed on the country's roads. Given the finite nature of funding in South Africa, developmental and social programs get prioritised over other services in budgetary allocations as these are constitutional in nature. As the country's road infrastructure and network forms a critical non-social program that requires efficient funding, it is important that innovative funding mechanisms are developed. Developing a dedicated roads fund, allocating available funds based on sound and thorough assessment of needs across the three spheres will be crucial to alleviating future road network challenges. The Chapter also concludes that ensuring sub-national entities access capital financing and apply some form of road user charges can assist in financing backlogs. Improved resource flows needs to be supplemented with effective spending by road authorities. Planning, designing and maintaining road networks will require not only dedicated road bodies but skilled technical and managerial personnel within such bodies as well. In this regard, emphasis should be placed on designing a framework that promotes greater road coordination across the three spheres of government and improving capacity of road institutions at sub-national levels. The Chapter presents a number of recommendations aiming at improving both the stable and sustainable funding for roads and for institutional arrangements.

Chapter 7 by **Tebogo Makube** gives an assessment of universal access to water and sanitation services in South Africa. The South African government is reforming its water and sanitation services. There are changes in legislation, policies, institutions providing water and sanitation services. Policy reforms also cover changes in fiscal, pricing and tariff frameworks and structures. Many factors are influencing such reforms. These include a need to expand universal access to water and sanitation services to the majority of the population, while ensuring environmental and economic sustainability. This Chapter postulates that a gap is emerging between national water policies and water service provision in South Africa. The reliability and quality of water supply by municipalities has been drawing attention in recent years. Some experts warn that South Africa has a water crisis. This is driven by lack of qualified staff, insufficient investments in water infrastructure, both for capital and maintenance, and an incomplete institutional architecture for the sector that undermines effective forms of accountability. The drive to achieve the universal access for water and sanitation is compounding the challenge. Most of the intended beneficiaries can't afford to pay for services beyond the legislated amount of free basic water services. These are complex policy challenges. The Chapter proposes that a myriad of policy options targeting both the supply and demand sides of water and sanitation supply must be considered. These must be complimented by a balance between public policy, public finance and regulatory principles which are important in governing the industry in an effective manner.

Finally, Chapter 8 by **Eddie Rakabe** tackles the highly topical issue of institutional and fiscal capacity support mechanisms of local government. Local governments in South Africa face multiple challenges which affect their ability to deliver quality services on a sustained basis. The challenges are not only confined to managerial, financial, technical and project management skills but also dire socio-economic difficulties such as high poverty and unemployment rates. The latter put enormous pressure on meagre resources available to local government in meeting the services delivery needs of the poor and developmental goals envisaged in the Local Government White Paper. Collectively, these challenges represent a capacity constraint or lack thereof on the part of municipalities. Over the past years since the new local government dispensation, national government put capacity building within municipality as a key priority. Numerous capacity building programs and grant funding have been introduced primarily to deal with capacity challenges faced by local government. Against this background this Chapter evaluates the performances of capacity support mechanisms against the key principles underpinning capacity development. The Chapter finds that while more than 20 programs have been introduced over the past 14 years, the impact on overall performance of municipalities is negligible or non-existent. Municipalities continue to require external assistance, receive negative audit opinions and service delivery backlogs remain unacceptably high. The Chapter attributes the ineffectiveness of capacity building programs to lack of incentives for performance and capacity enhancement; the reactive nature of capacity building programs introduced in response to crises; the absence of objectively measurable targets and post support monitoring mechanisms; lack of comprehensive approaches and coherence of support programs, and the arbitrary criteria for selecting eligible municipalities. In conclusion, the Chapter notes the following: firstly, that different types of municipalities experience different capacity constraints and therefore various forms of intervention are required. Secondly, that legislative, policy and institutional prescripts which provide a framework within which to build capacity need review. Thirdly, that lack of coordination between various capacity building programs undermines the overall impact on municipal performance. Lastly the study concludes that a singular focus on implementing sophisticated programmes or interventions on a weak institutional,

economic and managerial base almost invariably leads to a return to original problems. This highlights the need for a proper understanding of capacity problems facing municipalities as well as a coherent, timely and sequenced approach to capacity building.

As has always been the tradition with the Commission's work, this year's technical reports have relied on collaborative input from various partnerships. There have been rigorous consultations with the Commission's primary stakeholders from the provincial and national legislatures, expressed through the finance committees, to government, primarily through the Budget Council and Budget Forum, and local government, through the South African Local Government Association. Commissioners at the Commission have worked extremely hard in giving academic and practical direction to the work of researchers throughout the year. The support staff at the Commission Secretariat has also worked hard to ensure the success of these reports. Their contributions are greatly appreciated.

The views expressed in the technical reports contained in this volume are those of the authors and do not necessarily constitute those of the Financial and Fiscal Commission.

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(August 2009)

Chapter 1: Review of the Provincial Equitable Share Formula

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1.1. Background

The South African Intergovernmental System configuration is such that provinces are funded from the national revenue through the provincial equitable share (PES) and conditional grants and own revenue sources. The provincial equitable share is constitutionally entitled discretionary funding or grant instrument which enables provinces to deliver constitutionally mandated services or functions. It constitutes up to about 83 percent of provincial revenue from national government. The Provincial Equitable Share (PES) formula on the other hand is an objective transfer mechanism that distributes the grant among the nine provinces primarily but not solely, on the basis of demographic and economic profile. The formula is designed in such a way that it should address vertical¹ and horizontal² imbalances. The current design and structure of the formula was initially proposed by the Financial and Fiscal Commission (FFC) in 1996. Its design and application has critical implications for the delivery of social services and other functions allocated to provinces in South Africa.

At its inception the formula comprised of three major elements comprising the basic grant (B), to enable provinces for the provision of public services in the fulfilment of their constitutional obligations according to their own priorities; National standards grant (S) to enable the provinces specifically to provide primary and secondary education and primary health-care to their residents; and the tax capacity equalisation grant (T) to encourage provinces to take responsibility for raising their own revenue. In addition, recognising the national role of the academic hospitals, the FFC recommended separate conditional grants (m) to those provinces having such institutions (Khumalo and Rao, 2004).

Over the years since inception the formula has been subjected to several reviews, in response to the evolving nature of the intergovernmental fiscal system. The most notable review includes the 2000 FFC proposal on costed norms, the removal of backlog component in 2002 when the Provincial Infrastructure Grant was introduced. In 2005 the Social Development Component was removed from the formula. Consequently, a new Poverty component was introduced into the formula to improve the redistributive power of the formula. Other minor reviews include updating of data resulting from exogenous (outside the fiscal framework) policies such the re-demarcation of provincial boundaries. In all these instances there have been pressing issues that have been raised by all key stakeholders with respect to what can be achieved by the formula with respect to redistribution, appropriateness of the components, indicators and weights used in the formula, Examining the appropriateness of the current structure of the formula given the current policy environment.

The 2004 changes raised more pertinent issues related to the redistributive powers of the formula, which necessitated a full review of the provincial equitable share formula. In the main, there were issues of divergence between provincial expenditure trends and the indicative weight assigned to the social welfare component in the formula. This discrepancy was raised starkly when social assistance grants were removed from the formula. While

* The authors of this paper acknowledge the valued support and comments from members of the Technical Committee on Finance (TCF) and the TCF workgroup who participated fully throughout the process of the review. Special thanks to Commissioner Bongani Khumalo for his expertise, assistance, and comments, Dr J C Stegman who always brought different and helpful perspective to the review and Mr Kenneth Brown's national perspective. Gratitude and respect are in order for FFC Commissioners and fellow FFC researchers who commented on the paper throughout the research cycle.

¹ Vertical imbalance is a term used to refer to mismatch between revenue and expenditure responsibilities across different levels or spheres of government.

² Horizontal imbalance refers to situation in which different regions within a sphere of government have different abilities to provide services due differing ability to raise revenue or costs of providing services.

the indicative weight for social development was at 17%, provinces on aggregate were spending around 28% with some spending as high as 34% on social security grants alone.

In consideration of the fact that social security grants targeted vulnerable members of the society, poorer provinces disputed that the formula was losing its redistributive thrust with the shifting of this function. The contention was however, untrue in that provinces essentially played an agency role with less discretion over the social security grants. Nevertheless, these concerns were resolved through an introduction of a new poverty component in the formula with bias to poorer provinces and the downward adjusting the economic activity component. Similarly, relatively wealthier provinces raised issues around the fact that their discretion on functions other than social services was being eroded as a result of the strong focus of the formula on redistribution, which negated the fact that these wealthier provinces were massive recipients of in-migration from the poorer provinces.

Subsequent to the 2004 review, the Budget Council agreed that the Financial Fiscal Commission and National Treasury should carry out a comprehensive review of the of the PES taking into account some of the following. Concerns from provinces relating to among others the formula's ability/inability to redirect resources to poorer provinces, appropriateness of indicators (measurement) and the relevant weights assigned to formula component, reliance on demographic variables as well as response to demographic changes due migration patterns.

Other issues included in the review entail the possibility of introducing the social welfare component in the formula, exploring different mechanism to fund provincial specific developmental needs as well as accounting for historic economic disparities across provinces, revisiting, reviewing and assessing the feasibility of introducing a costed norms approach, Examining the implications of a demographically driven allocation formula and the need to uplift economically backward provinces and Balancing the need for provincial autonomy/discretion with the achievement of nationally determined priorities and norms and standards. The issues of concurrent functions and how this should be interpreted in the constitution especially in relation to policy and budget misalignments as well as utilisation of norms as leverage for policy enforcement is also part of the review.

1.2. Objectives

The aim of this study is to provide qualitative and quantitative review South Africa's provincial equitable share formula and the intergovernmental fiscal system against some of the underlying weaknesses and broad public finance principles underpinning revenue sharing in a fiscally decentralized system.

The paper highlights some of the weaknesses and ambiguities in the design and implementation of inter-governmental fiscal system and how other funding instruments like conditional grants and possibly borrowing negatively affect the performance of the PES both as a grant and a formula.

The paper further evaluates some of the key weaknesses and ambiguities in the design and implementation of the main pillars of system such as expenditure assignments, revenue assignments, and their impact on performance of the PES.

1.3. Methodology

The study entails an ongoing consultative process among the key stakeholders within government and intergovernmental forums such as the Technical Committee on Finance (TCF).

The first step in study is to draw Terms of references in consultation with provincial treasuries.

The Second step will set up a TCF reference group to which the research team will constantly report back and seek direction.

The third step review literature on the principles of intergovernmental fiscal decentralisation and grant design.

The fourth step entails modelling a revised provincial equitable share formula in line findings of the study.

1.4. Key results and discussion

1.4.1 Legislative framework underpinning the provincial equitable share

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Section 217(1)(a) of the Constitution stipulates that each province is entitled to an equitable share of nationally raised revenue. Furthermore Section 214(1) (b) makes provision for the determination, by an Act of parliament, of each province's equitable share of the total provincial share of nationally raised revenue. The Act in question, must also take into account the provisions and criteria listed in Section 214 (2) (a-j) of the Constitution in determining both the equitable share and other allocations to provinces from the national revenue fund. These criteria constitute a broad guideline underlying the horizontal division of revenue and include the following:

- (a) The national interest;
- (b) Any provision that must be made in respect of the national debt and other national obligations;
- (c) The needs and interests of the national government, determined by objective criteria;
- (d) The need to ensure that the provinces and municipalities are able to provide basic services and perform the functions allocated to them;
- (e) The fiscal capacity and efficiency of the provinces and municipalities;
- (f) Developmental and other needs of provinces, local government and municipalities;
- (g) Economic disparities within and among the provinces;
- (h) Obligations of the provinces and municipalities in terms of national legislation;
- (i) the desirability of stable and predictable allocations of revenue shares; and
- (j) The need for flexibility in responding to emergencies or other temporary needs, and other factors based on similar objective criteria.

The Constitution, however, does not prescribe the method for determining the horizontal division of revenue. The responsibility for choosing an allocation mechanism, that is compliant with the provisions of 214 (a-j), is relegated to an Act of parliament which in this case is the Division of Revenue Act. The Financial and Fiscal Commission is tasked with the duty to make recommendations to the Minister of Finance for determining the equitable division of nationally raised revenue.

During its 1996 submission the Financial and Fiscal Commission recommended a formula based approach to the division of revenue. The approach was motivated on the grounds that it has a wide international acceptance and is a good way of entrenching transparency and minimising manipulation (Financial and Fiscal Commission, 1996). However, it must be noted that the formula is unlikely to be fully consistent with all the provisions of section 214 (2) (a-j) as some of them require certain trade-offs while the others are based on value judgments. Murray (2009) dispute that while section 214 states that these factors are to inform both parts of the determination of the equitable shares as well as other allocations to provinces, not all factors will be equally salient in all determinations.

1.4.2 Public finance principles underlying intergovernmental grant design

Intergovernmental fiscal transfers are neither inherently good nor inherently bad. What matters are their relative effects on policy outcomes such as allocative efficiency, distributional equity, and macroeconomic stability. If, for example, the sole objective of fiscal decentralization is efficient delivery of public services, then what matters is how transfers affect the effectiveness and efficiency of public sector operations. The most critical aspect of intergovernmental transfers is thus not who gives them or who gets them but their effects on policy objectives. Since circumstances and objectives differ according to country, no simple, uniform pattern of transfers is universally appropriate (Bird and Smart, 2001).

There are however, several universal reasons that justify fiscal transfers to lower levels of government. These include (1) equalizing vertically; (2) to equalize horizontally, (3) to correct for inter-jurisdictional spillovers or externalities and enhance national objectives at sub-national level (*Martinez-Vazquez, 2004*). Equally important is a set of

related desirable features that a good transfer system must comply with or be evaluated against. Such features are summarised as follows:

- Promotion of budget autonomy and allocative efficiency within sub-nationals

Budget autonomy suggests that a greater part of the transfers is made up of unconditional lump sum as opposed to conditional grant. Allocative efficiency requires that public services be provided at the lowest possible costs and most importantly resources be allocated to services identified sub-nationally as the highest priorities Schroeder and Smoke (2002). The latter suggest that grants must not, intentionally or unintentionally, distort how sub-nationals allocate resources across sectors.

- Provide adequate revenue to sub-nationals

A transfer system meets these criteria when it is designed to ensure that sub-nationals to cover their unmet revenue needs and when the resources grows in tandem with needs over time.

- Provide positive incentives

The allocation system must encourage efficient and effective management of financial resources, fiscal effort and proper maintenance of infrastructure.

- Enhance equity and fairness

The grant system allocate resources in direct proportion to fiscal capacity (providing less to those with greater fiscal capacity) and the expenditure needs (providing more to those with greater need and cost of providing public services are high). This criterion relates directly to the aspect of horizontal equalisation. It is however complex, as it will be seen in the subsequent sections, since it commonly entails factors that are not easily measurable. There are difficult problems associated with measuring need and there is also no single standard for what constitute fiscal capacity Schroeder and Smoke (2002).

- Promote stability, transparency and simplicity

This means that the transfer system must be easy to understand and based on objective criteria less susceptible to manipulating and facilitate long term planning and budgeting process.

Ultimately, the choice of the type of grant must consider the objectives that the national government wants to pursue, as well as the way in which the beneficiary or sub-national governments are expected to act in one direction or the other. It is worth noting that the constitutional principles, objectives and features of transfer system outlined herein are often in conflict with each other. Thus constructing a transfer system requires careful consideration of the specific goals being pursued by government. The equitable share is unlikely to be fully consistent with all the provisions of section 214 (2) (a-j) as some of them require certain trade-offs while the others are based on value judgments. Equally important is a note that neither the South African constitution nor any other legislation makes specific requirements on the objectives or features of the transfer system as outlined above, except that each province is entitled to an equitable share of nationally raised revenue to enable it to carry out constitutionally mandated functions.

1.4.3 The Provincial equitable Share formula

The PES transfer is a formula driven grant program that distributes unconditional transfers to provinces. The formula is reviewed and updated with new data annually. Because the formula is largely population driven, the allocations it generates are sensitive to and capture shifts in population across provinces. Shifts in population in turn lead to changes in the relative demand for public services across the provinces. When the revised population figures are included, the weighted equitable shares of provinces must be revised.

1.4.3.1 Historical overview

At its inception the formula comprised of three major elements comprising the basic grant (B), to enable provinces for the provision of public services in the fulfilment of their constitutional obligations according to their own priorities; National standards grant (S) to enable the provinces specifically to provide primary and secondary education and primary health-care to their residents; and the tax capacity equalisation grant (T) to encourage provinces to take

responsibility for raising their own revenue. This component of the formula is an essential element in developing provincial accountability for expenditures. In addition, recognising the national role of the academic hospitals, the FFC recommended separate conditional grants (m) to those provinces having such institutions (Khumalo and Rao, 2004). Thus the total transfers (G) to be received by the provinces were expressed as:

$$G = B + S + T + m$$

In its submission for 1998/99 the FFC proposed that the total provincial allocation formula should be extended to incorporate an institutional grant (l) such that the formula becomes:

$$G = B + S + T + m + l$$

Over the years, the formula has been subjected to several reviews in response to the evolving nature of the IGFR system. The notable reviews includes the proposal of a costed norms approach by the FFC in 2000 (the proposal has since been rejected by government), the addition of backlog component in 2000 which has since been removed in 2002 when the Provincial Infrastructure Grant was introduced. In 2004 the Social Development Component was removed from the formula owing to the devolution of social grant administration from provinces to a national agency (South African Social Security Agency).. Other minor reviews include updating of data resulting from exogenous (outside the fiscal framework) policies such the re-demarcation of provincial boundaries. In all these instances there have been pressing issues that have been raised by all key stakeholders with respect to what can be achieved by the formula against the criteria that the horizontal division of revenue must satisfy as outlined in the Constitution Section 214 (2) a-j.

1.4.3.2 The current structure of the PES Formula

The provincial equitable share formula in its current format uses a combination of six components as proxy indicators of needs. These include education, health, basic, poverty, institutional and economic activity component. The weights of the components in the formula are neither indicative budgets nor guidelines as to how much should be spent on those functions in each province or by provinces collectively. However, evidence suggests that budgetary allocations across provinces, especially in education and health tend to mimic the weights in the formula. Similarly, too large a divergence between weights in the formula and budget allocations per sector are like to result in the problem that arose in respect social grants. Rather, the education and health components are weighted broadly in line with historical expenditure patterns to provide an indication of relative need. This means that provincial executive councils have discretion regarding the determination of departmental allocations for each function, taking into account the priorities that underpin the division of revenue.

The education component is intended to enable provinces to fund school education, which amounts to approximately 80 per cent of provincial education spending. The formula uses school-age population (5 to 17 years) based on Census and actual enrolment drawn from the Snap Survey to reflect relative demand for education, with each element assigned a weight equally.

The health component addresses the need for provinces to deliver health care. As all citizens are eligible for health services, the provincial shares of the total population form the basis for the health share. Within the health component, people without medical aid are assigned a weight four times those with medical aid, on the grounds that the former group is likely to use public health care more intensively. The proportions of the population with and without medical aid are taken from the General Household Survey.

The poverty component introduces a redistributive element within the formula. The poor population comprises persons who fall in quintiles 1 and 2 based on the 2000 Income and Expenditure Survey. Each province's share is then expressed as the percentage of the "poor" population residing in that province, where the population figure is drawn from the 2007 Community Survey. The institutional component compensates provinces for the cost of running government. The component originates from what was referred to as the "Northern Cape problem" whereby the formula had to recognise the limitations of using demographic data as indicator of needs for a provinces with large area per square kilometre and small population size. The component is distributed equally across provinces to recognize the fact that costs associated with running a provincial government, and providing services, are not directly related to the size of a province's population. The original recommendation from the Commission was to compensate only Northern Cape with this component but government decided to apply and allocate an equal amount across provinces for the costs of running government institutions in the hope that the province will be the biggest beneficiary on a per capita basis. The basic component is derived from the proportion of each province's

share of the total population of the country. The economic activity component is a proxy for provincial tax capacity and is based on GDP by region (GDP-R) data.

The total provincial equitable share allocation (G) for a province (i) is given as:

$$G = Ei + Hi + Bi + Ii + Pi + Ri$$

Where

E = education share (51 per cent)

H = health share (26 per cent)

B = basic share (14 per cent)

I = institutional component (5 per cent)

P = poverty component (3 per cent)

R = economic output component (1 per cent)

The table below gives the total equitable shares per component per province for 2008/09 financial year.

Table 1: Distribution of PES by province

Province	Education 51%	Health 26%	Basic Share 14%	Poverty 3%	Economic Activity 1%	Institutional 5%	Weighted Average 100%
Eastern Cape	16.9%	14.9%	13.5%	20.0%	7.9%	11.1%	15.6%
Free State	5.7%	6.2%	5.7%	6.9%	5.5%	11.1%	6.1%
Gauteng	14.9%	19.0%	21.5%	12.4%	33.7%	11.1%	16.8%
KwaZulu-Natal	23.1%	21.5%	21.2%	23.9%	16.3%	11.1%	21.8%
Limpopo	14.1%	12.0%	10.8%	16.0%	6.7%	11.1%	13.0%
Mpumalanga	8.5%	7.6%	7.5%	7.3%	6.7%	11.1%	8.2%
Northern Cape	2.2%	2.4%	2.2%	2.5%	2.2%	11.1%	2.7%
North West	6.4%	6.9%	6.7%	6.7%	6.3%	11.1%	6.8%
Western Cape	8.1%	9.6%	10.9%	4.2%	14.7%	11.1%	9.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: National Treasury 2008

1.4.4 The Current status of provincial finances and the provincial equitable share

Tables 2 summarize the main features of provincial finances. Due limited revenue raising powers provinces are very heavily dependent on central government transfers for the vast bulk of their revenues. In this regard, the PES transfer plays a dominant role accounting for up to 90 percent (in some provinces) of the total provincial revenue.

The overwhelming dependence of the provinces on transfers impacts on the expenditures in two important ways. First, it imposes a constraint on provinces' ability to change their expenditure patterns. This also implies the second feature, namely that national government has virtual control over equity in spending through the current structure of the PES formula. Khumalo and Rao, (2004) found that there is little variation between the provinces in per capita revenue accrued. As a consequence, the provinces are unable to significantly augment or alter the allocation to various expenditure items. Khumalo and Rao (2004) further find evidence of converging per capita expenditure levels or pattern between provinces. They conclude that that the formula is less redistributive given its inability to take into account cost disabilities arising from urbanization and high cost of providing services to the poor.

Table 2: Sources of provincial revenue

	2005/06 R' million %	Share	2006/07 R' million %	Share	2007/08 R' million %	Share
Own Revenue	7,379	4.6	7,954	4.9	7,673	4.8
Transfers from National Government	153,782	95.4	178,161	95.7	202,765	96.4
Equitable Share	135,292	84.0	150,753	81.0	171,271	81.4
Conditional Grants	18,490	11.5	27,408	14.7	31,494	15
Total	161,161	100.0	186,115	100.0	210,438	100.0

Source: National Treasury 2008

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1.4.5 Fundamental challenges with the current design of the intergovernmental fiscal system

The Provincial Equitable Share transfer suffers from flaws in the design of other basic pillars of South Africa's intergovernmental fiscal system. To a limited extent the PES transfer plays the role of an "equalization grant" played by other grants in many other systems of decentralized finance, but it also plays several other roles, such as being one of the main sources of vertical balance providing overall financing to provincial governments. Whether its main role is that of an equalization grant or other transfer, the performance of the PES depends heavily on how well the other main elements of the fiscal decentralization system do their job. Such elements include assignment of expenditure and revenue powers, conditional grant system and the borrowing framework.

1.4.5.1 Expenditure assignment

A critical challenge affecting the working of the PES mechanism is that there is no clear separation of concurrent responsibilities with respect to 'own' responsibilities, for which provincial governments can make decisions with substantial autonomy, and 'delegated' responsibilities, for which provincial governments have to comply with standards of provision dictated by the national sphere. Currently, for example, there is no clarity regarding whether general education and health services constitute 'own responsibilities' or 'delegated responsibilities', and the system continues to debate the desirability of both.

Even though the Constitution may be clear on functional assignments across spheres, the prevalent overlap of responsibilities between national and provincial government creates distortions in funding and accountability. For instance, the National Departments of Education and Health are always discontent with deviations between the 'agreed' funded priorities and the provincial budget outcomes. In other instances national departments argue that they are held accountable for policy outcomes over which they have little control on the required funding. These are the results of an incomplete system where expenditure responsibilities are neither clarified nor defined, and quantification of expenditure needs to be funded through the PES are not carried out.

Furthermore, there are inadequate norms and standards or principles in legislation to inform provincial expenditure and to derive funding needs of provinces. Currently, the spending of provinces on new programmes is driven mainly by the departmental bidding process. This process is normally driven by a national agenda, which some provinces perceive as undermining provincial-specific needs. As a result, there is always tension between the two spheres of government with respect to the funding of competing priorities.

1.4.5.2 Lack of exercise of revenue powers

With respect to revenue assignments, South Africa currently has what can be considered as a weak assignment of revenue sources to provincial governments. The lack of both significant revenue sources and effective use of such sources raises an important question. The key question relates to the overall discretion that provinces can exercise over national transfers and provincial allocative efficiency. International experience suggests that greater levels of revenue autonomy tend to bring significantly higher benefits than costs (Martinez and Alm, 2008). Therefore, providing greater revenue autonomy to provinces becomes a viable route to take. The contrary view in South Africa's case is that revenue autonomy is not important because the assigned functions to provinces are mainly basic social services. By their nature, these functions are conveniently funded when financed through transfers from the centre.

There is a need to carefully inquire the reasons why existing revenue sources currently available are not being used at its full potential by provinces. The current system of incentives facing the provinces to use and not to use their available fiscal capacity should get particular attention. This can be achieved by positively encouraging the use of fiscal capacity through a design of a simple conditional grant that provides additional funds to those provinces that effectively increase their fiscal effort.

Regardless of the appropriateness of the level of revenue autonomy and its use by the provincial governments, currently the formula used to determine the PES is perceived to be biased against fiscal (revenue) capacity. In South Africa the economic activity component only accounts for 1% of the equitable share to provinces. Although there are other countries that disregard revenue-capacity issues in their transfer systems, many other decentralised systems, in which provincial governments have their own-revenue sources, do equalise not only expenditure needs but also differences in fiscal capacity. So these systems are able to equalise more intensively across sub-national jurisdictions.

1.4.5.3 Conditional grants

Conditional grants are another element of a well-designed decentralisation system, particularly in funding policies of national importance. Overall, the current system of conditional grants still faces important challenges. Among other reasons, the lack of clear expenditure responsibilities has resulted in a proliferation of conditional grants in recent times. It is of concern to the Commission that increasingly more funds are being channelled through conditional grants to overcome structural problems related to assignments of expenditure responsibilities. Although the constitution does not prescribe the balance between conditional and unconditional, the general practice has been biased against the former. There has also been, through precedent, an impression created that infrastructure should be primarily funded through conditional grants. This also implies that the equitable share is only meant to fund operational expenditure. The Commission is of the view that this should not be the case. In the past, the Commission has recommended that only backlogs in infrastructure should be funded through conditional grants.

1.4.5.4 Borrowing

Where there is an infrastructure backlog and low credit capacity, borrowing, in combination with conditional capital transfers, is an important element for addressing infrastructure needs of sub-national governments. A well-developed and mature decentralised system of finance requires the development of credit institutions to finance capital investment projects. Of course, borrowing has to be exercised under strict rules and financial discipline. In the case of South Africa, the Provincial Borrowing Powers Act makes provision for provinces to borrow. But the incompleteness of the decentralisation system, among other things, makes it difficult for borrowing to be pursued in a rigorous manner. A need for, and the usefulness of, borrowing will become more apparent as expenditure assignments (including those for capital infrastructure) are clarified for the provincial governments. At the same time, the creditworthiness of the provinces will be increased with their increased revenue autonomy.

1.4.6 Institutional failures of the intergovernmental fiscal relations system

The current intergovernmental fiscal system is such that greater cooperation and coordination between national and provincial government is imperative to meeting the social goals of government. Cooperation is necessary for reaching consensus on national policy priorities and coordination is needed between policy priority and budgets.

There is currently an evident lack of cooperation (between spheres or sector departments) and coordination (policies and budgets), which is manifested in the misalignment of provincial budgets and national sector priorities. Misalignment of budgets and priorities takes place when provinces are perceived not to have adequately funded sector policy priorities out of their additional baselines to equitable share. Consequently, the national line departments resort to conditional allocations to fund national priorities. However, majority of these grants are characterised by poor performance on spending and management.

Some of the reasons provided for misalignment of priorities and budgets includes the view that provincial budgets reflects competing needs applicable to provincial circumstances balanced against limited resources. Intrinsic in this view, is the recognition of a province as an executive legislative authority that can take decision independently through qualified institutions. Hence, provinces have certain discretion or prerogative in terms of how they allocate their unconditional share of nationally raised revenue. However, the extent of such discretion is a matter of balance between national and provincial interest. Neither central control nor provincial autonomy has unchallenged priority.

The weaknesses of the intergovernmental fiscal system are further embedded in the institutions set up primarily to promote cooperation between national and provincial government, as well as to facilitate alignment of policy and budgets on concurrent functions during the budget process. These institutions include statutory bodies such as the FFC and the Budget Council as well as intergovernmental forums such as Budget Forums, MinMecs, MinComBud and Presidential Coordinating Committee (PCC).³ While the national and provincial governments are represented within these bodies and in the budget process, there is a tendency for national government to dominate the proceedings and sometimes impose on the provinces. Equally the provinces' representation and participation in the process is at times perceived as inadequate given their capacity and inability to influence decisions at this level. Of particular importance is that the FFC's participation in this process has been non-existent (it is supposed to play a referee function), or, where it exists, is very low key given its observer status in most of these forums. As a result, intergovernmental fiscal disputes are elevated to institutions that operate outside of the budget process. In essence these committees and bodies have their own specific gaps and largely respond to an imperfect process, as it filter down the budgeting process.

1.4.7 Issues in the design of the formula

1.4.7.1 Addressing the problem of multiple objectives

A common problem with the design of transfers, as in the case of equalisation grants, is that in many countries they get overloaded with many policy objectives. Eventually it becomes unclear what has been pursued or achieved with the transfer system. A very important general rule of policy design, and in particular for the design of transfers, is that a separate instrument must be used for each objective.

The PES formula attempts to achieve too many objectives and, as a result, it often does not achieve any one of them in a clear manner. Currently there are too many objectives other than equity/equalisation being pursued with the PES transfer. It is not clear whether the PES formula seeks to equalize, distribute, or redistribute public funds to the provinces or whether it is a general funding mechanism to enable the provinces to deliver constitutionally mandated services. The 'economic activity' component of the formula can be interpreted as a form of revenue sharing. It therefore needs to be treated separately from the formula, given its different objective to the rest of the formula. Revenue sharing is a form of transfer used in many countries as a solution to closing vertical fiscal imbalances and it may also be a way to let richer sub-national governments get their share in the wealth/revenues collected back to their territories. It is crucial that the main objectives of the PES formula are clarified.

In clarifying such objectives, further review of the important policy aspect of the fiscal decentralisation system will be required. This relate to the priorities that must be pursued in the application of PES funds. At present, there seem to be two competing answers to this question: the central government priorities and objectives should be pursued, and the provinces should be able to fix their own priorities and objectives in the application of PES funds. Of course, these two answers are not compatible.

An important objective of the national government is to ensure a minimum level of service for education, health, and (some aspects of) social welfare no matter in which province the citizens reside. The other objective is equity in the distribution of the resources. The problem is that neither of these two objectives are clearly defined and identified in the current PES share. In the absence of clarity on this issue many question remain un-answered. What is a minimum level of service? How do we ensure that it is provided? What is the equity standard to be achieved? Does it imply, for example, that the relatively poorer get relatively more (in per capita terms) and, if that is the case, how much more should they be receiving? These questions can only be answered by setting clearly defined norms for funding and spending, and standards for service delivery.

By implication the above also suggest a need to re-interpret how to implement the constitutional mandate for the distribution of the equitable share. The 'equitable share' must be seen as a minimum pool of funds arrived at as a share in the annual tax collections of the national government. But, instead of distributing this pool through an all-comprehensive formula, it may be more transparent and effective to divide the pool into a number of sub-pools, in pursuit of clear and separate objectives enriched under every one of the formula's subcomponents. The direction set in the 2001 FFC proposal on costed norms is attempting to do exactly that.

³ MinMecs are sectoral committees comprising a minister and nine provincial members of executive councils that identify trends in the sector, set priorities, and discuss budgetary implications of national policies for provincial service delivery. MinComBud is a smaller technical subcommittee of the cabinet led by the Minister of Finance that is involved in the oversight of developing budget and its compliance with government goals. The PCC comprises the President and nine provincial Premiers and discusses budgetary issues and alignment of the budget with national policy.

1.4.7.2 Grant nature of the PES

The question to ask is should the PES transfer continue to be an unconditional, general-purpose funding grant for provincial governments, or should it be a conditional transfer with funds earmarked for expenditure priorities established by the national government? In terms of sections 227(1) and 214(1) of the Constitution, the equitable share is meant to be unconditional while ‘other allocations’ may be conditional. However, there remain debates regarding the autonomy that provincial governments should exercise over the PES to pursue their own priorities, against the provision of constitutionally defined and mandated basic services. As such the equitable share is often viewed by some provinces as a de facto block grant.

To proceed with the agenda of reforming the PES, further clarity is required on the nature of grant that the PES should be. If the PES is unconditional in nature, then the direction for the reform is to transform it into an equalisation transfer that provides general revenue funding to sub-national jurisdictions. Provision of such a grant is premised on the understanding that provinces have the autonomy in setting priorities for use of the transfer, subject to adhering to nationally set norms and standard. However, if the main purpose of the PES is to provide a set, minimum level of services to all citizens, then the PES should be transformed into an outright conditional transfer, with full accountability by the provinces to the national authorities on how the funds are being used.

The South African system has relied on dialogue, consensus, and persuasion between national government and the provinces to resolve this issue. These processes of dialogue between the two different levels of governments are very important and cannot be played down. However, it may be naïve to think that coordination and dialogue alone will give satisfactory answers to the question of who sets the priorities for the use of funds if there is disagreement between the two spheres of government. A different approach may thus be needed.

In conclusion, there are a few options available to choose from if we are to reform and improve the current architecture and performance of the PES. But all of them will require the goals of government to be made much more explicit than they currently are.

1.4.7.3 Computation of expenditure needs in the formula

The current system of distributing the funds does not guarantee that the distribution of the funds reflects the government priorities concerning the different services being considered. Furthermore the current system of arriving at expenditure needs for education, health, some social welfare, and the “basic” service components in the formula does not allow explicitly for different in the costs of provision of services in different provinces. There are alternative methodologies that allows for these priorities and costs to be reflected in the computation of expenditure needs. In this way the implicit weights are made endogenous and dynamic, as opposed to being arbitrarily fixed at some point in time.

Currently it is not clear why certain service responsibilities, concurrent and own, are included and others are disregarded in the formula. There must be a clear definition of what current service responsibilities are to be taken as point of reference for the computation of expenditure needs. With regard to the computation of expenditure needs for current services, there are several acceptable approaches for quantifying the expenditure needs that are derived from a particular assignment of expenditure responsibilities; this are discussed in detail here and are also described in the Annexure A.

1.4.7.4 Absence of consideration given to differences in fiscal capacity in the formula

Fiscal capacity is defined as the potential revenue that a sub-national government can raise from its tax base, exerting an “average” level of effort. Thus, in order to measure fiscal capacity, it would be natural to focus on those revenues sources over which provincial governments have a certain degree of autonomy (i.e. the capacity to modify either the bases or the rates applied). However, at this point it must be recognized that there may be resistance to introduce this type of the reform, for several reasons. First, there is a lack of tradition in South Africa for accounting for disparities in fiscal capacity. Secondly, revenue assigned to provinces is limited, and whatever capacity has been granted, it has gone largely unused.

Consideration needs to be given to differences in fiscal capacity. The provinces currently raise some revenues, but more importantly, they have the (unused) capacity to raise additional revenues. In light of the differing capacity or potential to raise revenues, consideration needs to be given to including estimates of fiscal capacity in the PES

formula, thereby bringing it closer to an equalisation grant. The introduction of fiscal capacity measures in the PES formula would enhance its power to equalize across provinces. See Annexure A for detailed discussion on methodologies for estimating expenditure needs.

1.4.8 Perspectives on the Reform of PES System

Getting the PES system right will require a broad reform approach that not only reaches out on the PES formula itself but that also reaches deep within the system the PES formula operates. Put differently, there are two main reform options that can be considered. The first option is to focus mainly on changing specific features of the PES transfer or staying largely within the context of improving the existing PES formula. The second option is to focus on “Reaching Out”, or reforming the other pillars of the fiscal decentralization system. The specifics of these reform options are discussed in the recommendation section, but their broad outlines can be summarized as follows.

The first option is to stay within the confines of the current system but to fine tune the PES with the goal of addressing some of the problems that have been identified in this report so that the PES can improve its performance in a number of important areas. These reforms should be viewed mainly as a stopgap nature and will not – and cannot – address the deep structural problems now confronting the PES. The second option for reform starts with the realization that fixing the PES requires fixing other aspects of the current fiscal decentralization system. Specifically, the reform of the PES will require the reform of current expenditure and revenue assignments between the central and provincial governments. The implementation of second option will require significant changes in the current legislation and amendments to the Constitution.

1.5. Conclusions and recommendations

Option 1: The short-term solution

In the short term, the chapter recommends that the reform of the PES formula stays within the confines of the current constitutional dispensation. The Commission further recommends that:

- a) The PES formula should retain for the most part its current structure, and only be reformed to bring it closer to a conventional equalisation grant, which equalises both expenditure and revenue. See Annexure A for various methods of computing expenditure needs and fiscal capacity.
 - i. Both the expenditure needs and the fiscal capacity of each province should be defined by means of objective criteria that properly represent the objectives of horizontal equalisation.
 - ii. Expenditure needs should be derived from all expenditure responsibilities of the provinces. Expenditure can be quantified on the basis of an explicit per client financial norms, determined in the annual budget cycle for the national government, or the costed norms approach.
 - iii. The computation of the fiscal capacity must take into account the direct forecast receipts from revenue sharing for each province and the estimated potential revenues from own revenues, including the piggyback personal income tax and fuel levy if they were introduced.
- b) The PES formula should be divided into a number of components in pursuit of clear and separate objectives.
 - i. The ‘economic activity’ component of the PES formula should be removed to become a straightforward conventional form of revenue sharing, allocated either on a derivation basis or according to some other criterion such as the share of gross domestic product.
 - ii. Another part would be allocated for a system of conditional capital grants, mainly targeting backlogs in capital infrastructure and capital investment needs of provinces, especially for those that are not expected to be financed through borrowing, and should build on the current infrastructure grant for provinces.
 - iii. Most importantly, another component would be dedicated to implementing a system of unconditional equalisation grants that takes into account differences in expenditure needs and differences in fiscal capacity. The latter assumes that none of the expenditure assignments to the provincial governments (and in particular, education, health, and social welfare) are delegated. This would allow provinces complete autonomy to set priorities within the parameters of the Constitution, i.e. respecting the role of national

government. An incentive system of matching grants should be developed to support the implementation of national priorities.

- c) That institutional weakness in the budget process should be addressed as a matter of urgency to enhance cooperation between the two spheres, improve the enforcement of norms and standards and increase the capacity of national departments to monitor and build capacity of provincial counterparts. The role of the FFC as defined in the Constitution should be strengthened within the institutions dealing with division of revenue matters.

Option 2: Medium- to long-term solution

In the medium to long term the chapter recommends that the reforms should depart from the realisation that fixing the PES as a pool requires the fixing of other aspects of the current fiscal decentralisation system. Specifically, the reform of the PES will require the reform of current expenditure and revenue assignments between the national and provincial governments. The implementation of this option will require significant changes in the current legislation and amendments to schedules 4 and 5 of the Constitution in order to enable the conversion of several functions into delegated functions.

The Commission further recommends that this option should be considered with utmost caution owing to the inherent risks related to transition costs and the potential to compromise service delivery. It will be necessary to have a dedicated intergovernmental committee that will oversee and manage the transition process as well as identify potential risks.

- a) Taking the education and health services out of the PES, and converting those components into separate block, conditional grants from the national government to the provinces. Under a block grant, the provincial governments will have the obligation to spend the grant in the particular expenditure area (for example, primary education) but they will also be free to determine how the funds are used within that area. Education and health services will remain concurrent responsibilities of the national government and the provinces. In the reformed expenditure assignment system, these services will be explicitly recognised as 'delegated' responsibilities from the national government to provinces (as opposed to provincial government's own responsibilities and concurrent functions but not delegated responsibilities). Under this redefinition, the national government will have explicit responsibility for securing adequate funding on behalf of the provinces for the provision of these services. Provincial governments will use their discretion to add their own funds for improved financing and speeding up service delivery. The national government will also have responsibility for establishing performance standards for the delegated services. The necessary level of funding for the delegated responsibilities in education and health will be determined in the annual budget of the national government, by using financial per client norms or any other expenditure quantification criteria. The quantification of expenditure needs can be improved by adjusting the norms for differences in the costs of provision across jurisdictions.
- b) Removing the 'economic activity' component from the PES formula and converting it into a revenue-sharing pool. Because provincial governments will have added expenditure responsibilities, the current levels of revenue sharing will be maintained. This will be a mechanism to close the vertical gap between expenditure needs and financing ability of the provinces. Revenue sharing on a stable basis will increase the fiscal stability of provincial governments and will also be a way to let less poor, sub-national governments receive their share in the wealth/revenues collected within their boundaries.
- c) Increasing the revenue autonomy of provincial governments by fully implementing the provisions of section 228 of the Constitution and the Provincial Tax Regulation Process Act of 2003.
- d) Introducing an equalisation grant with the following features:
 - i. A predetermined fixed funding rule, which allows beneficiary provinces to anticipate and plan, based on the funding that will be available from this grant from year to year; and
 - ii. A distribution formula for the available funds, proportionate to the fiscal gap computed for each province, on the basis of the difference between allowable expenditure needs and fiscal capacity. Unlike the first option, expenditure needs will be a derivative of all expenditure responsibilities for provinces other than the delegated responsibilities (education and health) which are already minimally financed by the block grants. See Annexure A for various methods of computing expenditure needs and fiscal capacity.

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1.6.2 List of other publications produced by project

Annual Submission for 2010/11 Division of Revenue

1.7. Annexure A

1.7.1 Methodologies for quantifying expenditure needs

1.7.1.1 Historical Values and Lagged Expenditures

This methodology relies on historical expenditure patterns to estimate the expenditure needs of provincial governments. Whenever sub-national governments have a great deal of discretion in deciding the amount of expenditures incurred during a period, this methodology offers a way to estimate expenditure needs, with the important advantages of simplicity and minimum information requirement. Unfortunately, if sub-national governments have access to financial markets, the use of historical data could also provide perverse incentives to provincial authorities, because they will eventually "learn" that increasing expenditures in the present will result in higher equalization transfers in the future. On the other hand, if sub-national government expenditures have been determined in a rather arbitrary way by the central government, then historical expenditure patterns will likely not reflect true expenditure needs, and their use will tend to perpetuate the differences in fiscal disparities across provincial governments instead of reversing them.

1.7.1.2 Equality and Per Capita Equality

With a complete lack of information at the sub-national level, the simplest way to assign the transfer fund is to apportion the same amount of resources to each sub-national government. Equal transfers could be justified under the assumption that all the provinces have identical needs, but this is almost surely untrue and does not correspond to the reality of most countries. Among the several variables determining the differences in the expenditure needs across provinces, the most obvious and important is population. Under equal transfers the most populated jurisdictions will receive less transfer per capita, encouraging a demand for the fragmentation of big jurisdictions while part of their residents choose to emigrate to less populated jurisdictions where public services are more

abundant. All in all, the tendency would be toward a reduction of the gains associated with economies of scale in the provision of public goods and thus a reduction of the overall well-being.

1.7.1.3 Weighted Indexes of Relative Expenditure Need

This is likely the most popular among the methodologies for estimating expenditure needs. It consists of elaborating a weighted index that represents, ideally in objective terms, a synthesis of the factors determining the differences across different provinces in the cost of provision of a standard level of public services.

The relative need of each province and the index can be obtained by the following procedure:

Step 1: Determine the aggregated level of sub-national expenditure needs (*SEN*).

Step 2: Select the factors explaining the differences in expenditure needs across provinces.

Step 3: Compute the expenditure needs of all provinces according with each factor:

$$r_i^j = F_i^j / \sum_{i=1}^n F_i^j,$$

where r_i^j is the relative expenditure need according to factor j for province i , F_i^j is the value of the factor j for the province i , and n is the number of jurisdictions.

Step 4: Determine the relative weight of each factor of relative expenditure needs a^j , which is the same for all provinces and must satisfy:

$$\sum_{j=1}^m a^j = 1, \text{ where } m \text{ denotes the number of factors.}$$

Step 5: Compute the weighted index of relative expenditure need for each province i (IN_i):

$$IN_i = \sum_{j=1}^m a^j \cdot r_i^j$$

Step 6: Calculate the expenditure need for each province i , or N_i :

$$N_i = IN_i^* \cdot SEN$$

Naturally, the effectiveness of this methodology in capturing the relative expenditure needs will depend on the factors chosen and their weights. Unfortunately, these important decisions might be influenced by political pressures, so it is desirable to base them on statistical methods, which tend to be objective and transparent. The factors included in the index of relative expenditure needs might reflect demographic characteristics, such as the proportion of children or elderly who may be seen as especially important “clients” of provincial governments and thus could represent the sources of the main expenditures that have to be assumed. Other indicators, such as infant mortality, illiteracy, or variables related to poverty can also be useful to represent the differences in expenditure needs.

1.7.1.4 Per Capita (or Per Client) Expenditure Norms (“Top-down” Norms)

This methodology consists, first, of the determination of the total amount of resources to be spent in a particular provincial government program, and second, of establishing a common (average) norm by dividing this amount by the total number of clients that are intended to receive the benefits of the program. The expenditure norm is common to all provinces, which in the absence of other variations in cost provision may be interpreted as the per client expenditure need of the specific service funded by the program. The client-based expenditure norm may have a prescriptive character, forcing provincial governments to spend according to the established norm, or it may just be optional, in which case the provincial governments are allowed to decide a different amount of expenditure per client. Even with differences in the cost of provision across provinces, it is not difficult to incorporate adjustments to the norm, which is why the method does not impose any limitations in this respect.

Expenditure norms have several important advantages. This methodology ensures the feasibility of the selected norms because the total amount of resources to be spent in a certain program is limited to the available budget and defined by political considerations. As a consequence, the expenditure norms can be obtained in a transparent and realistic way. The disadvantages deal mainly with the determination of the total fund allocated to the different programs. Special care must be taken to represent the true expenditure needs of the population by the programs

and their relative budgetary importance, and thus also in avoiding subjective judgments and political pressures. Otherwise the equalization objective might be jeopardized.

The methodology of per-client expenditure norms defines individual norms for each program from the available budget at an aggregated level, so it may be understood as a “top-down” approach according to the hierarchy of the government. The next methodology follows the opposite approach, and is usually referred to as a “bottom-up” approach.

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1.7.1.5 Traditional (“Bottom-up” or “Physical”) Expenditure Norms

This methodology consists of completely quantifying the costs of providing each governmental service, by adding up the costs of purchasing or hiring all the inputs required for delivering a public service of a standard level of quality. Although this methodology is intuitively appealing and in theory should provide precise estimations of the expenditure needs, its implementation requires an enormous amount of information about input prices, as well as a comparable effort in defining national standards and updating them to changing market conditions. In practice, this methodology might very easily lead to a situation of non- manageability, which could prevent the fulfilment of its objectives.

Determining the standards of public services without explicitly accounting for the available budget may be seen as resulting in unrealistic policies. Indeed, the final decision about the funding of expenditure programs is taken in the context of a political process that does not necessarily ensure the affordability of the standards defined by the law, and often after calculations are complete, it turns out that their costs exceed the budgetary funds available. On the other hand, this may not be a shortcoming of the costed norm approach, and it may in fact constitute strength because it can tell policymakers how unrealistic/expensive their priorities are; it can also indicate that they should choose a lower standard or target level of provision to suit available resources.

1.7.1.6 “Representative” Expenditure System

This methodology is likely the most sophisticated among those currently used for estimating expenditure needs of sub-national governments. It is used in countries like the United States and Canada. Its implementation can be described by the following procedures:

- Step 1: Selection of the functions among those assigned to sub-national governments, which will be subject to equalization.
- Step 2: Identification of the main variables affecting the costs of delivering the services associated with each selected function. This may be done by running linear regressions where the dependent variable is the actual spending in the selected functions and the independent variables are those representing the sources of cost differences in the provision of local public goods and services.
- Step 3: Estimation of the representative expenditures of each province by using those coefficients that have been observed to be statistically significant and have the right sign. The representative expenditure is interpreted as the expenditures a province would incur if it provides a standard package of public services.

1.7.2 Measures of fiscal capacity

1.7.2.1 Lagged Own Revenues

This methodology assumes that own revenues during a relevant period are representative of the fiscal capacity provincial governments. There are at least two reasons that this assumption may not be appropriate. The first is the presence of factors that may create a gap between the amount of taxes actually collected and the fiscal capacity of a government. Among these factors are differences in tax structure and the definition of the tax base (e.g. different definitions of taxable income or exemptions criteria) by which two provincial governments may not collect the same level of taxes even though they have the same fiscal capacity; differences in the compliance costs assumed by provincial governments in order to enforce the tax law; and differences in the compliance rates across provincial governments.

The second reason is related to the perverse incentives that the use of current revenues may provide to provinces. If provinces “learn” that less own revenues in the present might be totally or at least partially counterbalanced in the future with greater transfers, then they could be tempted to reduce their fiscal effort.

1.7.2.2 Basic Proxies for Ability to Tax or Ability to Pay

The use of this methodology is widespread, and consists of computing fiscal capacity based on variables that can capture the ability that provincial governments may have in collecting taxes. One example is per capita personal income; however, since provincial taxes may also be applied to firms, this proxy may not serve as a good approach for estimating revenue potential. A more comprehensive example is the gross internal product of each province. Also, if those components not comprising the provincial tax base are excluded from the gross internal product, a very acceptable estimation of provincial revenue potential may be obtained.

1.7.2.3 Representative Revenue System

The representative revenue system is a multidimensional measure of fiscal capacity that represents the amount of revenue that would be obtained by a province if an average level of fiscal effort is exerted. It is calculated in several steps. First, the tax base of each province is estimated. Second, a set of common tax rates, representing an equal level of fiscal effort, is applied to these bases. Those that turn out to have a lower fiscal capacity with respect to a certain threshold or standard are selected as the beneficiaries of the transfer program.

The information required for a suitable estimation of the tax base is sometimes not available at the provincial level. In such a case it would be necessary to rely on a simplified version of the methodology based on a proxy measure of the tax base. Still, the estimated fiscal capacity may be very accurate, and whenever data availability allows the implementation of this methodology, it would certainly be recommendable.

Chapter 2: Public Infrastructure Investment

2

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2.1. Background

South Africa's pressing macroeconomic challenge is that of insufficient economic growth required to reduce high levels of unemployment and poverty. Recent empirical studies suggest that countries facing high unemployment and poverty, and lagging behind the technological frontier, need to invest significantly in infrastructure in order to enhance productivity and economic growth (Aghion et al., 2005; Vandenbussche et al., 2006). This chapter provides a measure of the impact that an expansion of public infrastructure spending above the baseline would have on economic growth, poverty and unemployment in South Africa.

A computable general equilibrium (CGE) model of the economy was developed and used to run and quantify the effects of a series of simulations focusing on water, health, roads and transport, electricity and communication infrastructure spending above those indicated in the baseline. It is contended that major investment to expand and upgrade existing infrastructure is necessary in order to address imbalances, backlogs and support developmental efforts particularly in areas that are struggling to come out of abject poverty. The increased estimates of infrastructure backlogs are an indication that the government has not put enough funding towards infrastructure. It can also be argued that maintenance spending is below where it should be. The only dedicated source of infrastructure funding for the provinces is the Schedule 4 Infrastructure Grant for Provinces, to which provinces are barely contributing from their own revenue. The grant in itself has performed well since inception (around 95%) which indicates a capacity to absorb extra money. The recent capacity deployed for the construction of the 2010 Fédération Internationale de Football Association (FIFA) World Cup Stadia and related infrastructure is further testimony that South Africa has reasonable capacity to absorb new and big cash injections of the magnitude envisaged in the simulations proposed in this chapter. This capacity will be idle and waste away if not deployed elsewhere, and infrastructure expansion offers part of the solution to this.

2.2. Overview of institutional issues around infrastructure

The twin aims that public infrastructure attempts to address are (i) increasing access for all citizens to basic services via extending or constructing new assets and (ii) maintenance and/or replacement of infrastructure. In this section we explore the nature of institutions relevant for infrastructure. We explore infrastructure services provided by provinces and local government and gauge the magnitude of backlogs associated with each of the services. We then go on to discuss the financing arrangements for infrastructure services before concluding the section with a discussion of infrastructure delivery performance (at national level).

2.2.1 Institutions supporting infrastructure

The process of developing infrastructure involves a number of functional responsibilities, all of which require government attention or support. Firstly, infrastructure development is underpinned by **policy development**

* We owe a huge intellectual debt to Ismael Fofana who is a partner in the design of the CGE model used in this study. We are also grateful to Professor John Cockburn and Professor Bernard Decaluwe from Laval University in Canada for collaboration on the modelling. We thank participants at the Financial and Fiscal Commission Review session in November 2008 who gave many comments on this paper. We have also received many comments from David Savage on this paper and we are very grateful for that. Members of the Financial and Fiscal Commission's Research Committee are gratefully acknowledged for their efforts in steering this document towards a final report. The views expressed in this report are primarily those of the author.

which stems from strategic goals and objectives of government, sectoral and regional investment priorities, etc. The second functional responsibility is **capital investment planning (CIP)**. This plan determines the projects that will be invested into, who will build and operate, financing, and the building period. Some of the best practices in identifying infrastructure projects include the use of multi-year and annual investment planning that is subjected to periodic reviews. Infrastructure projects are identified and prioritised in accordance to economic, development and market needs. Projects are pre-screened in a standardised manner supported by due diligence studies. Planning, financing and construction of projects are integrated and the decisions to build infrastructure are based on objectivity with limited political inertia (Asian Development Bank. 2002).

Regulation, enforcement and approvals are the third functional responsibilities that must be exercised vigorously by government in the infrastructure development process. **Actual investment**, which comprises of both capital and recurrent cost of building infrastructure constitute the fourth functional responsibility. It is through this function that the appropriate mix of finance for infrastructure projects are explored and identified. The fifth responsibility involves **designing and construction** of the projects. Under a planned economy this function is exclusively carried out by government entities and agencies. However, the function can also be exercised by private entities, through competitive bidding processes for public works projects. **Operation and maintenance** of completed infrastructure is the sixth functional responsibility in the infrastructure development or support process. Private management and service contracts are used as alternative for government in performing this function in many countries. Finally, **monitoring** is a crucial functional responsibility in infrastructure development process. This function tends to increase in importance the more the other responsibilities are allocated outside of government. Essentially there are different phases of infrastructure monitoring that must be in line with the life cycle and nature of infrastructure projects. The first phase of monitoring takes place during the project planning stages i.e., environmental and economic assessment. The second phase entails expenditure monitoring. Construction monitoring constitutes that third phase where aspects of quality are considered. The last and most important phase is utilisation where continuous maintenance and condition assessments need to be carried out.

Schedule 4 and 5 of the South African constitution bestow functional responsibility for the **delivery of public services**, including but not limited to infrastructure, to the three spheres of government as stipulated in section 40 (1). The South African constitution emphasises the service delivery role of government despite the growing need to transform government from the role of service deliverer or provider to that of an enabler, regulator and monitor, particularly in relation to infrastructure development. Furthermore the constitution lacks precision in allocation of responsibility between and within spheres in relation to supporting infrastructure development. This can be attributed to the concurrency in functional assignments that cuts across the entire built environment functions.

Responsibilities for capital investment within government are located across a number of government spheres and agencies. Generally, revenue, budgeting and expenditure monitoring functions are located within national and provincial treasuries (although this is not always the case where public entities have been established). Strategic planning functions are typically located in the Presidency, Office of the provincial Premier or Municipal Manager. Project planning and conceptualization is located with relevant sector departments, while project management functions are located either with sector departments or with special purposes departments, most notably the provincial Departments of Public Works (DPWs). Inter or intra governmental functional assignment requires extreme levels of coordination and cooperation between sector departments at all levels infrastructure development process.

Out of 34 national departments 22 (65 percent) perform infrastructure related functions such as government buildings, bulk water resources, police stations, courts and prisons, electrification as well as make infrastructure transfers to agencies and public entities. Implicitly, national departments are supposed to provide overarching sectoral infrastructure frameworks informed by the broader national policy. National policies such as National Spatial Development Plans (NSDP) and the Accelerated and Shared Growth Initiative for South Africa (ASGISA) provide the basis from which capital investment plans can be developed. However, with the exception of the department of transport, other national departments do not have the national capital investment plans.

Provincial departments mainly provide infrastructure related to schools, health, agriculture, provincial roads and public works. Ideally, provincial infrastructure development needs to be supported by the Provincial Growth and Development Plans (PGDPs) which in turn should inform the region specifics and sectoral capital investment plans. PGDPs tend to be high level plans which are not always assimilated to sectoral and even local government level. For this reason and owing to the current practice of planning infrastructure projects in accordance with the three year budget cycle, provincial specific infrastructure plans are non existent.

Local government is entrusted with the responsibility for development of municipal roads and storm-water, water distribution and wastewater collection and treatment, electricity distribution, street-lighting, bus and taxi ranks, community halls, refuse sites etc. Similarly, local government has the responsibility to draw up capital investment plans in the form of Integrated Development Plans (IDPs). Despite the fact that many municipalities struggle to develop credible IDPs linked to the budget as well as provincial and national policies, the IDP process is cumbersome. It does not only entail infrastructure planning but also other administrative protocols.

The Integrated Development Plan (IDP) process is most of the time overambitious and not aligned to budgets. Municipal officials do not reveal their capital budgets to potential private investors. Most or all IDPs are 'heavy-infrastructure-laden', but neglect to provide for the maintenance of existing public investments. Most IDPs are consultant-driven and not responsive to community inputs. Some of the IDPs are presented for compliance purposes. Improving these IDPs is very important, and special emphasis should be placed on the trade-offs that have to be made within existing resource constraints. IDPs should also be linked to Provincial Growth and Development Strategies, especially in the area of infrastructure development.

Insufficient infrastructure planning is further made difficult by continual and guaranteed existence of a small amount of infrastructure conditional grants which are allocated annually on the basis of business plans and not necessarily long term planning. Consequently, municipalities use their meager resources on small infrastructure projects with minimum or non-existent impact on the socio economic environment.

South Africa has a large number of agencies and public entities that are publicly owned but operate on business principles to support public infrastructure delivery. Examples of these entities include 17 water boards, South Africa Roads Agency, Trans Caledon Tunnel Authority, (TCTA) South African Rail Commuter Corporation (SARCC), Transnet, Eskom, Telkom, Sentech, Airports Company of South Africa (ACSA), Alexcor, DENEL, South Africa Post Office Limited and Development Bank of Southern Africa. In most cases these entities have their own long term independent capital investment plans not aligned to the broader national, provincial and local policy framework. This is especially true in that their capital expansion plans tend to be geared towards projects with high economic return rather than high social returns. Conversely, many of these entities continue to rely heavily on transfers for bailouts. These occur amidst availability of a wide array of revenue sources at their disposal such as user charges, retained earnings, borrowing, and transfers from oversight government departments, private public partnerships (PPPs), concessions and sale of assets.

The responsibility for regulating, enforcing and approving infrastructure projects in the South African Intergovernmental Relations system is not clear. This weakness can mainly be attributed to the arbitrary manner in which infrastructure projects are identified and structured. Intergovernmental foras such as the Capital Budget Committee have been set up to undertake the review of individual capital/infrastructure projects, priorities and select projects, develop and improve appraisal process as well as make recommendations to the Medium Term Expenditure Committee (MTEC) and Minister's committee on budgets (MincomBud). (National Treasury. 2006) The National Treasury also has a division whose aim is primarily to assess the feasibility of mega infrastructure projects. The major weakness of these processes is that projects are evaluated on a case by case basis with little consideration for alignment and coordination. On several occasions, political will preside over economic rationality in approval process. For example, both the province of Limpopo and Northern Cape have at some point requested funds for construction of International Convention Center. Misaligned, unbridled and uncoordinated investment in infrastructure results in weakened benefits relative to costs, diminished multiplier effects on growth, and reduced returns on investment. Cooperation between approval authorities in different spheres is sometimes difficult and full of red-tape resulting in slow delivery on investments.

2.2.2 Funding infrastructure

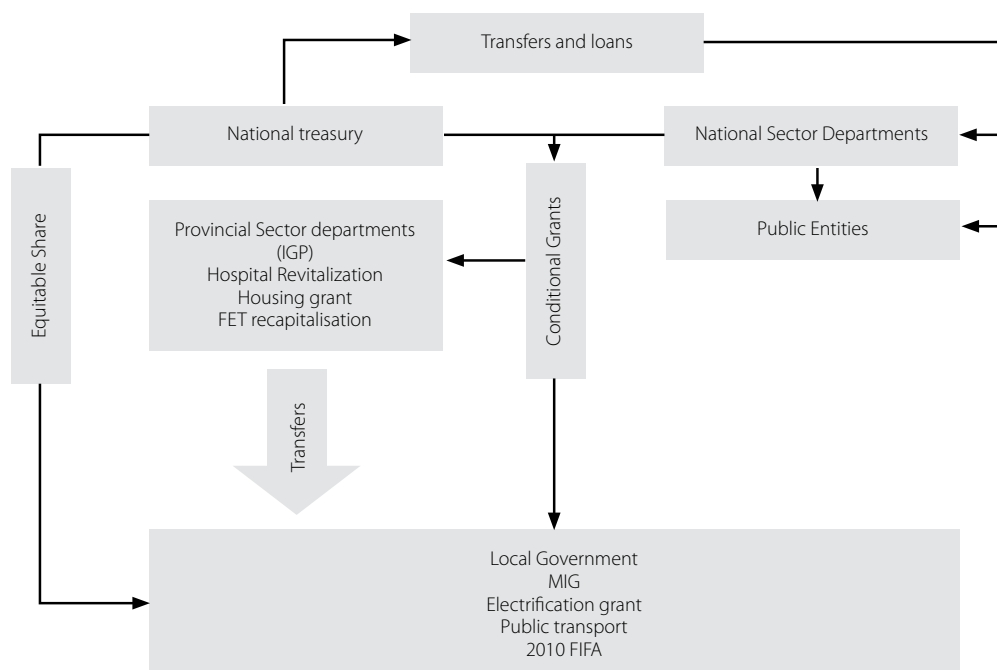
Intergovernmental infrastructure financing evolved from a sector focused and project based programmes that effectively earmarked resources to particular sectors, and required national approval of specific projects in each sector. These programmes were poorly designed and highly bureaucratic, leading to extensive delays in project approvals and very limited oversight over expenditure. They also displaced accountability for investment decisions from sub-national to national government departments (who in some cases were audited for individual project expenditures) (Savage, 2008). In 2002 government introduced the Provincial Infrastructure Grant (PIG), now the Infrastructure Grant for Provinces (IGP) and the Municipal Infrastructure Grant (MIG) as flagship sub-national infrastructure programmes. During the same year the Backlogs component within the Provincial Equitable Share Formula was removed due the introduction of the IGP.

The introduction of these grants, however, did not immediately translate into improved infrastructure development within provinces and municipalities. This was due to both weaknesses in spending capacity, as it is still currently the case, and the long lead times associated with planning for infrastructure projects as well as allocations based on project-specific approvals of individual municipal projects (Savage 2008). Whereas, the main purpose for introducing these grants was to streamline infrastructure financing, it has also tended to give national government more leverage to exercise more control over infrastructure spending within lower levels of government. This is the manifestation of another weakness of the South African intergovernmental system in assigning infrastructure related responsibilities to different spheres.

Public infrastructure in South Africa is mainly financed from various sources including government transfers, own revenue in the case of municipalities, private and public loans and to a limited extent PPPs and concessions. These sources vary widely between and within various spheres of government and entities. Generally, provinces and municipalities rely heavily on government grants while entities are mainly financed through their own balance sheets, that is, loans, sales of assets, dividends and so on. Figure 1 gives an aggregate depiction of flow of different types intergovernmental transfers to various spheres of government.

The equitable share formula, which represents the vertical share of nationally raised revenue, forms an important cornerstone of unconditional infrastructure finance between the three spheres. However, most provinces and municipalities use the equitable share for funding operational or current expenditure. For that reason there exists a plethora of conditional infrastructure grants to provinces and municipalities. Conditional grants are meant to supplement programmes that are partly funded by sub-national governments themselves, for example, housing, health etc. There are two types of infrastructure conditional grants in the South African system, namely Schedule 4 or specific purpose grants (such as in health revitalization) and Schedule 5 (such as Municipal Infrastructure Grant (MIG)) (see Josie *et al.* (2006) for a comprehensive discussion of conditional grants in South Africa).

Figure 1: Flow of intergovernmental infrastructure transfers.



The largest contributor of infrastructure finance to provinces is the Infrastructure Grant for Provinces (IGP) mainly used for all infrastructure functions of provinces. In addition to the IGP, provinces have several key specific purpose infrastructure grants. The Hospital Revitalisation Grant aims to transform and modernise infrastructure and equipment in hospitals. The Integrated Housing and Human Settlement Development Grant is aimed at establishing habitable, stable and sustainable human settlements in which all citizens have access to social and economic amenities. The Further Education and Training College Sector Recapitalisation Grant contributes to upgrading of physical infrastructure for the colleges and acquisition of equipment. Due to insufficient revenue raising powers and concerns over debt services cost, provinces are unable to source private funding to finance their infrastructure projects (Savage,

2008). However, legislations such as the Public Finance Management Act and Provincial Borrowing Powers Act make provision for intergovernmental lending, where the National Treasury borrows on behalf of provinces¹.

The single largest infrastructure transfers for municipalities are the Municipal Infrastructure Grant, Public Transport Infrastructure and Systems Grant and the 2010 FIFA World Cup Stadium Development Grant. Municipalities further use own revenue from user charges and property taxes, equitable share and loans to supplement their infrastructure budget. Many local governments, with the exception of category C², have the ability to raise a substantial amount of revenue. Category A³ and B⁴ municipalities have access to the property tax and all local governments can charge user fees for the provision of services.⁵ Fees for potable water and for the distribution of electricity are widespread. Among local governments, the actual capacity to raise revenue differs substantially. In the country's six metropolitan areas, locally-raised revenues account for over 95 percent of total revenue, while in many rural areas; local contributions fund only 10 to 25 percent of local spending (National Treasury, 2008).

Table 3 below shows the overall infrastructure expenditure estimates by sphere and selected major government entities. At an intergovernmental level it is clear that provincial government accounts for a bigger share of infrastructure spending followed by municipalities. These two spheres are predominately responsible for social infrastructure financed mainly from grants.

Table 3: 2008 MTEF: Infrastructure expenditure estimates

	*2006/07	*2007/08	*2008/09	*2009/10	*2010/11
R Million		Estimate	Medium Term		
National Departments	4 626	4 810	5 601	6 367	8 899
Provincial Departments	26 731	32 709	34 432	42 481	44 502
Municipalities	21 441	28 768	30 663	33 871	36 773
Public Private Partnerships of which	2 443	4 050	7 886	9 288	11 367
**South African National Road Agency (SANRAL)		797	1 429	1 807	2 732
Extra Budgetary Public Entities	3 999	4 747	4 950	5 323	7 814
Non financial public enterprises, of which	37 176	53 165	64 570	63 956	63 687
*Eskom		23 803	25 010	34 010	31 578
*Transnet	-	16 935	21 481	17 480	12 714
*Infraco	627		1 131	872	92
*South African Rail Commuter Corporation (SARCC/ Metrorail) rolling stock, signalling, buildings, tracks and equipment	688	1 029	1 696	2 267	3 484
*SARCC Public Transport Infrastructure System (PTIS) and Systems Grant		180	476	210	450
*SANRAL PTIS and Systems Grant			130	100	200
Total	96 416	128 249	148 102	161 286	173 042
Percentage GDP	5.4	6.4	6.6	6.6	6.4
GDP	178 731	2 019 148	2 230 281	2 458 882	2 723 837

Public entities on the other hand account for a bigger share of the total spending on economic infrastructure. Both Eskom and Transnet play an integral role to this effect. (see Table 4)

¹ The Gauteng Loan Agreement is a case in point.

² A municipality that has municipal executive and legislative authority in an area that includes more than one municipality

³ A municipality that has exclusive municipal executive and legislative authority in its area.

⁴ A municipality that has exclusive municipal executive and legislative authority in its area.

⁵ Although the recently enacted Property Tax Rates Bill authorized all municipal governments in South Africa to levy a property tax, revenue from the property tax is relatively modest in many, especially rural, municipalities. The new property rates legislation provides the legal framework for municipal governments to tax agricultural land and public service infrastructure. The absence of administrative capacity in many municipalities suggests that expansions of the property tax base will occur only slowly.

Table 4: National consolidated infrastructure budgets and expenditure as at 31 March 2007

	*2006/07	*2007/08	*2008/09	*2009/10	*2011/12
R Million		Estimate	Medium Term		
Transnet Capex					
Transnet Freight Rail		7 878	8 869	7 210	5 603
Transnet National Port Authority		3 949	5 691	4 631	2 452
Transnet Port Terminals		3 136	2 642	1 343	1 338
Pipelines		900	3 282	3 289	2 302
Rail Engineering		699	774	796	866
Other continuing business		373	223	211	153
Total		16 935	21 481	17 480	12 714
Eskom Capex					
Generation		15 837	20 057	23 802	23 200
Transmission		3 739	6 393	4 831	3 637
Distribution		3 797	4 327	4 569	4 113
Corporate		430	693	808	628
New Business					
Total Funded By Eskom		23 803	31 470	34 010	31 578

The distinction between funding for social and economic infrastructure follows conventional practices where social infrastructure is financed by grants and economic infrastructure is financed in part by private funding. The multiplier effect of various types of infrastructure on growth depends heavily on the sources of finance as will be seen latter on in the study.

2.2.3 Infrastructure delivery performance

Infrastructure delivery performance (National)

Although infrastructure funding is allocated through national department, it is important to note that most of the infrastructure funding is managed and spent at the provinces and municipalities. In this way, national departments merely serve as disbursement agents. With this in mind, Table 5 shows that national departments (excluding infrastructure transfers to public entities/agencies and conditional grants to provinces) had spent 86,7% (R4 009 million) of their budgeted R4 626 million on infrastructure expenditure. This represented an increase of 31% compared to spending in 2005/06. The improvement in expenditure levels continued during the first and second quarters of the 2007/08 financial year ending 30 September 2007, with national departments spending 32,9% (R1 842 million) of their budgeted infrastructure expenditure – an increase of 12,7% compared to the same period in 2006/07. Table 3 shows infrastructure delivery performance by national departments.

Table 5: National consolidated infrastructure budgets and expenditure as at 31 March 2007

Department	2006/07 Adjusted Budget	Actual Spending 31/03/07	Actual Expenditure (% of budget)	2005/06 Outcome (31/03/2005)	Year on Year Growth (%)
Arts and Culture	166	180	108.4	117	53.8
Correctional Services	642	532	82.9	791	-32.7
Defence	71	168	236.6	179	-6.1
Environmental Affairs and Tourism	170	151	88.8	104	45.2
Foreign Affairs	205	148	72.2	46	221.7
Home Affairs	43	25	58.1	49	-49.0
Justice and Constitutional Development	336	322	95.8	302	6.6
Public Works	493	415	84.2	158	162.7
Safety and Security	288	498	172.9	452	10.2
Science and Technology	65	49	75.4	110	-55.5
Trade and Industry	987	369	37.4	325	13.5
Water Affairs and Forestry (repairs and maintenance)	1160	1152	99.3	428	169.2
National Total	4626	4009	86.7	3061	31.0
Transport (SANRAL)	3487	3027	86.8	2350	28.8
Infrastructure Grant to Provinces					
Integrated Housing and Human Settlement Development	6751	6547	97.0	4588	42.7
Hospital Revitalisation Program	1760	1560	88.6	888	75.7
Infrastructure Transfers to Municipalities					
Electrification Program	1118	892	79.8	148	502.7
Municipal Infrastructure Grant	6265	5796	92.5	4163	39.2
Total	24007	21831	90.9	15198	43.6

However, note that pockets of under-spending still exist in some departments. For example, the Department of Trade and Industry recorded the largest component of under-spending in 2006/07 on their Industrial Development Zone (IDZ) programme as a result, in particular, of the delay in a decision by Pechiney/Alcan/RTZ on the proposed aluminum smelter at COEGA. The second largest decline was registered by the Department of Correctional Services. The department requested the Parliamentary Finance Portfolio Committee to approve the rollover of R512,9 million for the Kimberley Prison Project and a reduction of R1 100 million in the 2007/08 budget owing to delays in implementing other prison projects, caused by the escalation of bid construction costs, and interdepartmental responsibility overlaps with the Department of Public Works and National Treasury.

Infrastructure delivery performance (Provinces)

On provincial infrastructure, the big spenders are public works, roads and transport, health, education and to a small extent agriculture. Provinces are at the forefront of delivering infrastructure services that contribute to reduction of vulnerability, poverty and inequality. In terms of schedule 5 of the constitution provinces are assigned various functions, most of which are a shared responsibility with national government. In the most, these functions include school education, health services, social welfare services, housing, agriculture roads and transport and economic development. Provincial infrastructure responsibilities associated with this function include building and maintenance of schools and associated infrastructure such as libraries and laboratories, hospitals, roads and building social houses. National government is mostly responsible for the setting of policy frameworks as well as monitoring while provinces are responsible for the implementation of such policies with the given budgets or allocated funds.

Provincial infrastructure budgets mainly comprise of two sources, including the conditional grants such as the Infrastructure Grant for Provinces, Integrated Housing and Human Settlement Development Grant, Hospital Revitalization Grant as well as a fraction of the Provincial Equitable Share. Collectively these three key conditional infrastructure grants grow from R13 billion in 2006/07 financial year to over R21 billion in 2009/10. Over the years

starting from 2003/04 provincial discretionary expenditure on infrastructure has been growing at an average rate of 17.4 percent per annum from just below R2 billion to over R22 billion in 2009/10. The provincial education expenditure mix in South Africa is dominated by current payments (see Table 6). Personnel expenditure constitutes approximately 80 percent of total recurrent expenditure. The remainder is accounted for by transfers and subsidies, goods and services such as learner support materials and payment for capital assets.

Table 6: Percentage of Provincial Education expenditure

	2003	2004	2005	2006	2007
Current payments of which:	91.6	91.2	90.8	89.3	89.3
Compensation of employees	82.5	82.6	80.8	79.3	78
Goods and services	9.1	8.5	10	10	11.3
Transfers and subsidies	4.1	5	5.3	6	6.4
Payment for capital assets	4.3	3.9	3.9	4.7	4.3
	100	100	100	100	100

Source: National Treasury, 2007

The department of public works, jointly responsible for delivery of a large number of infrastructure projects, and the department of roads and transport constitute the largest share of provincial infrastructure spending. The second big spender is health followed by education. As is the case with local government, provincial infrastructure needs and backlogs remain significantly higher despite growing expenditure. Of concern, is that there is little information available on the extent of provincial infrastructure needs and backlogs. However certain sectors such as education have made significant strides in estimating school infrastructure need through their periodic survey called School Register of Needs (SRN).

Government conducted surveys of infrastructure needs of schools in 1996, 2000 and 2006 and respectively concluded that there is a need to invest more resources in school infrastructure. This includes building new schools, laboratories and libraries, adding classrooms and providing schools with social amenities such as water, electricity and sanitation. In her speech to the National Council of Province (NCOP) the Minister of Education, Naledi Pandor, estimated that the cost of making up for the education infrastructure backlog is R40 billion and that this consists of a space backlog of R13,6 billion, a standards backlog of R19.8 billion, and a condition backlog of R2,5 billion. Space backlog refers to inadequate number of classrooms and learning spaces. Standards backlog refers to where facilities are available but are below standard. Condition backlog refers to deteriorated facilities due to lack of maintenance. According to the National Education Infrastructure Management System audit (2007), while the required teacher learner ratio is 35 pupils per class, 23% of South African schools (translates to 6 331 schools) had 45 pupils in each classroom. The lack of classrooms rather than a shortage in teachers is to blame for this. It is pointed out that close on 12,000 new classrooms are required especially in the rural areas of Limpopo, KwaZulu-Natal, Eastern Cape and to a lesser extent in Gauteng.

Furthermore, up to 41 percent of public ordinary schools have no access to portable water, 16 percent have no access to electricity while more than 61 percent have no proper arrangements for waste disposal. Table 5 below shows conditions of schools by province. Both Eastern Cape and KwaZulu Natal rank the highest in terms of schools in poor conditions.

Table 7: Condition of school infrastructure by province

Province	Total "operational" sites assessed	Excellent	Good	Poor	Very Poor
Eastern Cape	6,727	41%	18%	22%	19%
Free State	2,260	59%	17%	15%	9%
Gauteng	2,141	81%	10%	5%	4%
KwaZulu Natal	5,905	54%	17%	14%	15%
Limpopo	4,751	52%	20%	18%	10%
Mpumalanga	2,524	58%	19%	14%	9%
Northen Cape	845	70%	13%	11%	6%
North West	2,275	70%	13%	10%	7%
Western Cape	1,813	93%	4%	2%	1%
% 2006	28,786	58%	16%	15%	11%
% 2000	0	53%	-45%	-10%	2%
% 1996	0	7%	77%	11%	5%
% change since 1996	0	51%	-61%	4%	6%

Source: Department of Education, 2007

Infrastructure investment in the health sector is primarily focused on the revitalisation of hospitals, capital investments in forensic pathology services and national emergency medical services. Between 2003/04 and 2006/07 financial year health capital budgets grew annually by 24 percent from R2,4 billion to 4,7 billion. While infrastructure backlog are evidently higher within this sector it is concerning that provincial governments, with few exceptions, have not done broad based formal audits of the state or conditions of health facilities. However, investigations undertaken by the CSIR found that lack of maintenance is in many instances hampering delivery of quality health services. It is estimated that the current replacement cost for all hospitals and clinics is in excess of R100 billion. In addition a survey of Primary Health Care facilities (The facilities Survey) published in 2004 found that almost a quarter of clinics still didn't have piped water and about 10% did not have sanitation, electricity and telecommunications.

As in the case of education, the bulk of public health expenditure is made up of current expenditure which constitutes 87 percent of total health budget. Of the 87 percent, 56 percent and 31 percent is accounted for by employee compensation and purchasing of goods and services respectively.

Table 8: Percentage of Provincial health expenditure

	2003	2004	2005	2006	2007
Current payments of which:	87.1	87.5	85.9	87.1	87.5
Compensation of employees	56.7	57.6	54.1	53.6	55.5
Goodss and services	30.3	29.8	31.7	33.5	31.6
Transfers and subsidies	6.4	5.9	6	4.2	3.7
Payment for capital assets	6.6	6.7	8.2	8.7	9.2
	100	100	100	100	100

Source: National treasury

Further disaggregation of provincial expenditure by function (see table 9) shows that Hospitals account for a bigger share of the total budget followed by primary health care, health facilities and HIV and AIDS.

Table 9: Provincial health expenditure by function

	2003	2004	2005	2006	2007
Hospitals	23 105	24 976	28 132	30 912	32 438
Primary Health Care (PHC)	6 478	7 148	8 214	9 064	11 042
HIV and AIDS	618	1 147	1 692	2 375	2 879
Health Facilities	2 076	2 243	3 103	4 251	4 626
Others	4 710	5 085	5 975	7 046	8 267
	36 987	40 599	47 116	53 648	59 252

Source: National Treasury.

Roads and transport, as mentioned earlier, is by far the largest provincial infrastructure expenditure. Roads infrastructure expenditure is mainly focused on construction of new roads, upgrading and rehabilitation of surfaced roads as well as maintenance. In 2006/07 alone provinces spent R5,2 billion on roads infrastructure and R3,6 billion on maintenance. Collectively, provinces account for approximately 50 percent or 348 000 kilometers of the total national road network. Of the total provincial road network only 14 percent is surfaced while the remainder is generally graveled. In 2002, a survey of surfaced provincial roads showed that 35 percent are in a poor to a very poor state requiring immediate replacement or rehabilitation. The estimated replacement cost for road infrastructure in the ownership of provincial government is estimated to be in the region of R200 billion.

The last and most critical area of provincial infrastructure spending is in housing. This function constitutes one of the shared responsibilities between the three spheres. The function is primarily financed through a conditional grant to build Reconstruction and Development Programs (RDP) houses. Over the MTEF starting 2007/08 expenditure is expected to increase from R8.2 billion to R11,5 billion in 2009/10. Through this grant, an average of 250 000 new houses are constructed annually and have resulted in cumulative construction of 2.4 million houses in the last 13 years. However, there remains an estimated backlog of 2.2 million houses with a target eradication date of 2014. Measured against the available resources the Minister of Housing Lindiwe Hendricks projected that a funding shortfall of R102 billion will be required in order to meet the target.

Infrastructure delivery performance (Local Government)

The current income of local governments mainly consists of payments made by their local residents (i.e. enterprises and households), and grants by the national and provincial governments. Only metros and local municipalities levy property rates, impose surcharges on fees for services provided. Table 10 shows the growth in national government transfers to local government. As can be seen, the transfers consist of an equitable share designed to subsidise operations of the municipality and two conditional grants, namely the Municipal Infrastructure (MIG) for capital projects and capacity building grants. The conditional grants are channelled through the Department of Provincial and Local Government.

Table 10: Growth rates in national transfers to local governments 2004/05 to 2010/11 (%)

	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Growth Rates							
Equitable Share and related		25.6	87.3	14.5	20.4	21.2	20
Infrastructure transfers		16.1	9.6	91.7	6.4	2.1	11.9
Capacity building transfers		-14.9	1.5	40	-53.7	16.3	15.4

Source: Table 8.8 of 2008 Budget Review, pp131.

Table 11 below from the 2008 Budget Review (National Treasury, 2008) provides a global view of the importance of MIG funds to Local Government between the 2003/04 and 2007/08 period. It is clear from this Table that the MIG grants constituted the largest proportion of National Government transfers for financing municipal infrastructure over the period. A simple conversion of the amounts above to percentages reveals the importance of the MIG transfers in the context of intergovernmental funding for local government financing of infrastructure. For the period, on average the MIG grants amounted to almost 60% of all direct transfers to municipalities (See Department of Provincial and Local Government (2005)).

Table 11: Infrastructure transfers to local government, 2003/04–2009/10

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	Outcome			Revised	Medium-term estimates		
Direct transfers¹	4 102	5 299	6 286	7 931	12 390	17 119	15 302
Municipal infrastructure grant	2 442	4 481	5 436	6 756	7 549	8 053	9 130
National Electrification Programme	245	196	297	355	468	596	897
Implementation of water service projects	1 022	208	-	-	-	-	-
Disaster Relief	-	280	311	-	-	-	-
Poverty relief funds	393	134	-	-	-	-	-
Public transport infrastructure and systems grant	-	-	242	170	1 174	3 170	2 325
Neighbourhood development partnership grant	-	-	-	50	500	1 500	1 650
2010 FIFA World Cup stadiums development grant	-	-	-	600	2 700	3 800	1 300
Indirect transfers²	1 613	1 638	1 767	1 333	1 913	2 431	2 964
Water and sanitation operating	817	819	904	440	490	531	393
Total	5 715	6 936	8 053	9 265	14 303	19 550	18 266

1. Transfers made directly to municipalities

2. In-kind transfers to municipalities

Source: National Treasury; Budget Review 2008.

2.2.4 Monitoring infrastructure and institutional capacity

Monitoring of infrastructure

Infrastructure expenditure is monitored and evaluated using the National Infrastructure Project Register (NIPR), compiled and managed by National Treasury. It tracks and monitors infrastructure expenditure across national government structures, tying this expenditure to the Medium Term Expenditure Framework (MTEF). As at 30 September 2007, the NIPR had 22 706 registered projects with an estimated project value of R183,7 billion. Some 8 150 projects worth R74,6 billion were in the construction stage, with 7 885 projects at various other stages of planning. The balance of 6 671 projects were at various stages of completion. The bulk of the projects were in the housing sector (7 857) and under the MIG (8 434) – mostly water, sanitation and municipal roads projects. Of the 8 150 projects under construction, 431 (5,3%) were overdue, reflecting a slight deterioration compared to September 2006 (when 4% of projects were overdue). Reasons for project delays included poor planning, hold-ups in the Environmental Impact Assessment (EIA) processes (including De Hoop Dam), late conclusion of funding arrangements, unavailability of land and legal issues relating to bid processes. A larger proportion of projects had shifted into the construction stage at September 2007 – 50,7% compared to 41,8% in September 2006.

As mentioned elsewhere in the paper monitoring of infrastructure takes place at different facets of project life cycle. However, in the case of South Africa monitoring appears to be only conducted at expenditure phase of new projects for the sole purpose of budgeting. Other phases of monitoring are not properly assigned between spheres or are just neglected. According to Fourie (2007) South Africa is not doing very well on infrastructure quality measures and monitoring. There seems to be emphasis on more infrastructure, rather than better infrastructure.

Capacity problems specific to infrastructure

There are several underlying issues affecting the expenditure performance and impact of infrastructure undertaken mostly by sub-national governments (Savage, 2008). The capacity of sub-national governments to spend the resources available to them is a perennial concern of government. Following the introduction of the Infrastructure Delivery Improvement Plan (IDIP) across all provinces spending has improved. However, this programme has identified fundamental institutional problems underlying poor spending capacity and undermining the quality of outcomes. These include:

- (i) Problems in the infrastructure delivery process, from planning to budgeting and financial management. This leads to extensive delays as poorly planned projects cannot be budgeted for, budgets are often under-estimated, funds not made available timeously, and procurement activities not properly undertaken; and

- (ii) Weak institutional arrangements for infrastructure delivery, including inadequate contracting with DPWs, over-centralisation of project planning and approval, especially for small scale projects, and weak reporting and monitoring systems

Underlying these weaknesses is the chronic shortage of skilled staff within the public sector. Planning systems and institutional arrangements are complex to manage, especially for capital projects. On the one hand there are few, if any, tailored training programmes for public officials. On the other, high vacancy rates compromise the operational capacity of even the best designed systems.

2.3. Literature Review

There is an extensive literature, both theoretical and empirical, on the effects of public capital spending on output dating back to Arrow and Kurz (1970) and Aschauer (1989). During the 1980s and 1990s, there was strong academic interest (particularly in the United States of America), on the link between public investment in infrastructure and economic growth. From the outset, it is interesting to note the trend in which this research has followed, from the initial headline estimates of a production elasticity of 0.4 in 1989 to the more modest assessments of 0.1 in 1997. The purpose of this section is to give an overview of the 'public infrastructure debate', drawing on some of the more influential papers, both internationally and nationally. Before exploring this debate it is important to bear in mind that, given the complexity of the subject matter, empirical controversies are to be expected. Many of the benefits of public investment are difficult to measure, and are not always included in the calculation of Gross Value Added (e.g. improved health and a cleaner environment). As Gramlich (1994) points out: 'it will always be difficult to relate infrastructure investment to its goals, or changes in them'.

2.3.1 The International Literature

Aschauer

The link between infrastructure investment and economic growth has been a major topic for academics since the publication of Aschauer's (1989) seminal paper which found that public investment in infrastructure was a very important source of economic growth. Aschauer considered the relationship between aggregate output and the stock and flow of government spending variables and concluded that 'core' infrastructure of streets, highways, airports and mass transit systems should be given more weight when assessing the role government plays in the promotion of economic growth and productivity improvements.

Aschauer's work suggested that the elasticity of output with respect to government capital was highly positive, within a range of 0.38 to 0.56. This implies extremely high returns, with the marginal product of government capital in the region of 100 per cent per annum or more. This would imply that one unit of Government capital pays for itself in terms of higher output in a year or less. Given these results, it's not surprising that Aschauer's work was to initiate the 'public infrastructure debate' which has resulted in numerous academic studies since.

Munnell

Munnell (1992) provides an excellent assessment of the early literature on the public infrastructure debate. She shows that the main problem with Aschauer's work is that his results do not rule out the possibility that the direction of causality runs from growth to infrastructure (i.e. economic growth might lead to an increase in the need for investment and/or an increase in the availability of funding), or that the correlations that he found are spurious. Nevertheless, in response to the critics who claim that the wide range of estimates of public capital's impact on output '*make the empirical linkages fragile*', Munnell provides evidence to suggest these claims are misleading. As illustrated in Table 12 below, in almost all cases the impact of public capital on private output has been found to be positive and statistically significant.

Table 12: The impact of an increase in the stock of public capital on output

Author	Focus of study	Output elasticity of public capital
Aschauer (1989)	US National	0.39
Holz-Eakin (1988)	US National	0.39
Munnell (1990a)	US National	0.34
Costa, Ellson and Martin (1987)	US States	0.20
Eisener (1991)	US States	0.17
Mera (1973)	Japanese regions	0.20
Munnell (1990b)	US States	0.15
Duffy-Deno and Eberts (1989)	US Metropolitan Areas	0.08
Eberts (1986, 1990)	US Metropolitan Areas	0.03

Source: Table adapted from Munnell (1992)

Munnell concludes that the evidence suggests that, in addition to providing an immediate demand-side economic stimulus, public infrastructure investment has a significant, positive effect on output and growth. However, she stresses that in a policy making context *'Aggregate results cannot be used to guide actual investment spending. Only cost-benefit studies can determine which projects should be implemented'*.

Gramlich

Gramlich's (1994) influential paper also unpacks many of the arguments and assertions made by Aschauer, along with the mass of academic literature which followed. Gramlich begins his paper by using the narrow public sector ownership definition as the stock of infrastructure capital – but highlights that a wider meaning could involve private infrastructure capital, human capital investment and research and development spending. This emphasises the importance of definition – what type of investment is being classified as infrastructure and what type is then being linked to economic growth. Gramlich notes that projects such as a new highway might provide a very high return, whereas maintenance of rural roads might provide low or even negative economic rates of return; in such areas, investment objectives may be primarily social rather than economic. He applies this by showing that only two-thirds of the capital stock analysed by Aschauer even purports to raising national output – and to varying degrees – making his claims about the major positive influence of infrastructure on economic growth less plausible.

Evans and Karras (1994)

As research in the field progressed, disputes over the direction of causality between changes in productivity and investment in infrastructure arose. Evans and Karras (1994) analyzed infrastructure and productivity data for seven OECD countries between 1963 and 1988. The study found strong correlations between the two variables, but concluded that the direction of causality was the opposite of that reported by Aschauer and Munnell. That is, increased stocks of public capital were the result of increased productivity and economic growth, not the cause. In analysing the correlation between average annual gross domestic product and government net capital stock, they concluded, "there is no evidence that government capital is highly productive" [Evans and Karras, 1994: 278]. Aklilu Zegeye (2000) supports the Evans and Karras study, concluding that infrastructure is a normal good, where wealthy counties will tend to have more and poor counties less. Zegeye's report found the output elasticity between public infrastructure and private investment was just 0.02.

Several other authors have attempted to resolve the question of causality, refining their methodologies to ensure they capture the results of infrastructure investments, and not the results of economic growth. A 2000 OECD study by Demetriades and Mamuneas, and a 2002 study by Esfahani and Ramirez handled the causality issue by introducing a "time-lag" between variables for public infrastructure and productivity. In these studies, investments were compared with the productivity data several years afterwards, allowing time for the benefits of infrastructure investments to manifest themselves in the productivity data, and reducing the chance of misrepresentation of economic growth impacts as productivity impacts. Both studies using this technique found that public infrastructure does have a measurable impact on increasing productivity and economic growth, although not of the magnitude reported by Aschauer.

Lau and Sin

Lau and Sin (1997) published an important econometric paper on public infrastructure and economic growth. This was subsequently referred to as being '*the most sophisticated subsequent econometric studies*' by SACTRA (1999) and commended for taking the research some way to circumventing the 'causality' and 'definition' difficulties highlighted by Munnell and Gramlich amongst others. The authors estimate the elasticity of output with respect to public capital to be 0.11. Although this would imply a much lower marginal product of public investment than that indicated by Ashauer's original paper, it still suggests that infrastructure investment has a significant impact on output.

2.3.2 The South African Literature

The literature on the impact of infrastructure investment on economic growth is still small and relatively recent. It has followed along a similar path to the trends observed for the international literature. A good account of the literature is available in Fourie (2006). Table 13 summarises all the studies that we are aware of on the topic.

Table 13: The impact of an increase in the stock of public capital on output in South Africa

Author	Infrastructure measure (on economic growth)	Econometric technique	Output elasticity
Abedian and van Seventer (1995)	Public authorities capital stock	OLS	0.33
	Public sector capital stock	OLS	0.17
Coetzee and Le roux (1998)	Public sector infrastructure stock	OLS	0.3
DBSA (1998)	Public authorities capital stock	OLS	0.25
		Cointegration	0.3
	Public sector capital stock	OLS	0.15
		Cointegration	0.28
	Public sector infrastructure stock	OLS	0.17
		Cointegration	0.25
Fedderke, Perkins and Luiz (2005)	Electricity Generation	VECM	0.1-0.2 and rising to 0.5 after controlling for institutions
Bogetic and Fedderke (2005)	Infrastructure measures on labour productivity	VECM	0.2-0.4
	Infrastructure measures on total factor productivity	VECM	-0.6
Fourie (2006)	Electricity Generation	VECM	0.2
	Electricity Generation on a measure of equity performance	VECM	0.38
Amusa (2008)	Economic Infrastructure	VAR	0.01-0.02
	Social Infrastructure	VAR	0.01-0.02

Source: Table adapted from Fourie (2006) and extended by authors.

The early studies have relied on classical econometric tools while the latter studies have used more recent techniques of Vector Error Correction Models (VECMs) and Vector Autoregressions (VARs). In spite of differences in methodology, the studies report a positive output elasticity. Bogetic and Fedderke (2005) find positive effects of infrastructure on labour productivity but negative effects on total factor productivity. Their explanation for this counterintuitive result is that infrastructure only has direct effects and no indirect effects! This is grossly at odds with predictions from received theory where indirect effects are most important. A study by Fourie (2006) finds bi-directional causality between infrastructure and growth and also finds large positive returns to infrastructure on equity. The recent study by Amusa (2008) uses sophisticated VAR methodology and finds that infrastructure on equity has larger positive effects on growth than economic infrastructure.

Thus, the South African studies that have been reviewed show favourable effects of infrastructure spending on growth, irrespective of the methodology used. Some even go further to argue that infrastructure on equity has higher returns than economic infrastructure.

2.3.3 Summary and Lessons Learnt

Aschauer (1989) linked the impact of investment in public infrastructure with gross domestic product (GDP) growth at the whole economy level. His innovation was to consider infrastructure as an additional factor input in an aggregate production function with GDP and capital. Recent research building on Aschauer's work found flaws in his original work that led to overestimate the benefits of infrastructure investment, which were found to be more modest. Lau and Sin (1997) found much lower elasticities (around 0.1) of output to transport investment. Additionally, a causality problem remained unsolved, meaning that it is not possible to know for certain if economic growth was leading to infrastructure, or infrastructure to growth, or both. However, the main problem with Aschauer's and other models of this type is that their results refer to gross infrastructure investments. These models fail to inform policy makers of the best returns from infrastructure (e.g. roads, public services, buildings), in order to direct public investment.

The findings of this literature are mixed, and whilst most find that the output elasticity of public capital is positive and significant the magnitudes of the effects vary considerably. One source of the variance of these results is the variety of econometric estimation methods used and the varying specification of the production function assumed (eg: Cobb-Douglas or Translog). A comprehensive review of the literature available for South Africa shows the same trends as observed in the international literature.

For the immediate purposes of this project, it is important to note that despite the fact that the original headline elasticity claims of Aschauer 1989 have been reduced over time; more recent research still suggests that infrastructure investment has a significant impact on output. Perhaps the most important message to draw from all of the academic literature covered here can be found in Gramlich's paper: ***'the best approach is not to try and analyse the numbers and tell how short the supply is and how much national or state spending or grants should be increased. A far more sensible approach ... is to find the optimal stock'***. Interpreting this in this context would suggest that the issue is not simply about increasing the level of public investment, but investing in the right projects and managing this investment better⁶.

2.4. Methodology

As we have just seen from the review, many researchers have attempted to measure the gross impact of public sector investments with macroeconomic models. Recent modelling approaches emphasise that infrastructure interventions provide significant inputs into the production of other goods and services in addition to any direct contribution they make to the economy. Such interventions will thus be expected to have knock-on effects on the rest of the economy. It is on these that this project puts most of its emphasis, taking its queue on long term macroeconomic impacts from the econometric study by Amusa (2008).

There are, broadly speaking, three channels through which infrastructure type investments will have general equilibrium effects. The first will emanate from the supply side. Essentially this view is that infrastructure services are inputs into the production process. Expanding them would remove supply constraints, expand output and thus employment. This view is also particularly prevalent amongst supporters of Small to Medium Enterprises, where provision of credit could reduce constraints on their expansion. We need to distinguish here between government current expenditure and capital expenditure.

The second type of effects emanate from the demand side. Infrastructure type investments reduce costs to consumers and this raises real incomes which then increases aggregate effective demand for all other goods in the economy. Similarly, expanding employment has demand raising effects that are beneficial to the rest of the economy.

The third channel operates through redistribution of income leading to compositional effects on demand. Removing distortions through investments can reduce incomes of those agents that benefited from the distortion in the first place and create new beneficiaries. These distributional effects can be important not only for understanding the full impact of reforms but also because they give some insight into the political economy of reforms.

These three channels are microeconomic in character: they work through their impact on particular agents in the economy and the behavioural response of those agents. These will be conditioned by macroeconomic responses,

⁶ Ayogu (2005) also surveys the theoretical literature on infrastructure and growth and then reviews the empirical evidence globally and within the African region. Overall he concludes that the question is not whether infrastructure matters but precisely how much it matters in different contexts? Ultimately, this is an empirical question that the literature has not yet resolved satisfactorily. In contrast, according to him, the crucial issue—understanding policymaking processes in infrastructure—remains little understood and largely under-researched.

in particular the balance between aggregate savings and investment. The way in which this balance is restored, referred to as **closure rules** in technical parlance, will feed back on to the outcomes at the microeconomic level.

To examine these effects we therefore need models that not only capture interindustry and income distribution effects, but also have some macroeconomic structure. Economic impact analysis using inter-industry models provides a method to evaluate the effects of a project or proposed policy change. We use the Computable General Equilibrium (CGE) modelling approach. While these methodologies are not the only tools available for economic impact analysis, they represent the type of tools that are most frequently used within the public sector.

2.4.1 The CGE Model Structure

The CGE model used is the one we recently developed in Fofana *et al.* (2007; 2008). It is based on the neoclassical general equilibrium theory. In addition, the model specifies a number of structural features designed to reflect the characteristics of the South African economy. Producers maximize their profit under a given technology and prices. Production is assumed to be carried out by representative producers using a nested Constant Elasticity of Substitution (CES) production technology. Consumers maximize their utility subject to their budget constraint and to given prices. Households are modelled as representative agents that are assumed to have Stone-Geary type preferences. Perfectly competitive conditions are assumed in which prices clear the market by equating demand to supply of commodities.

2.4.2 Specificities of the Model

South Africa has unemployment of unskilled labour coexisting with a shortage of skilled labour. The model captures these features by distinguishing the labour market into high-skilled and low-skilled categories. Each category in turn is separated according to their location (urban and rural areas). Each specific skill-level behaves differently in terms of earnings, job opportunity, unemployment, and wage flexibility.

Aggregate capital in the model is distinguished by the sector of use, as, agriculture, industry, private services and general government services capital. Capital demand is industry-specific meaning that there are as many capital returns as there are capital using industries in the model. Capital supply is exogenous and is supplied by various institutions in the economy. These institutions then receive the average returns from capital in each of these sectors except government services. No return is paid for general government services capital. Instead the government supports the cost of using the capital.

The model explicitly treats the trade and transportation margins for commodities that enter the market sphere. A constant trade and transportation margins coefficient is added to each transaction and included in the purchasing price of commodities. Consequently, the generated revenues represent additional demands for trade, and transport services. There is a separation between production activities and commodities. A fixed proportional relationship between activity output and commodity domestic supply permits any activity to produce one or multiple commodities and any commodity to be produced by one or multiple activities.

2.4.3 Macroeconomic Closure Rules

CGE models may have different closure rules for equilibrating commodity, factor and foreign exchange markets. Closure rules are also needed for reconciling the government budget constraint and to equilibrate savings and investment levels in the economy. We assume in this model that all commodity markets follow the neoclassical market-clearing price system, in which jointly determined producer and consumer prices vary only by given tax, subsidy and margins rates.

We assume the labour market to be fully segmented. Workers cannot move between urban and rural areas in the short term, as there is no explicit treatment of migration in the model. There is no competition for positions between high skilled and low skilled workers, each stays in its category. Thus, high-skilled and low-skilled workers in both urban and rural areas participate in different labour markets but with each skill type assumed to be perfectly mobile across industries. A single wage index prevails for each market. Skilled workers are fully employed in the economy although low rates of frictional unemployment⁷ are observed in urban and rural areas for this category. The skilled

⁷ Frictional unemployment exists because both jobs and workers are heterogeneous. A mismatch related to skills, payment, worktime, location, attitude and tastes can result between the supply and the demand of labor.

labour market is assumed to be perfectly competitive so that the prevailing wage rates equalize exogenous supplies and endogenous demands for high-skilled workers in both urban and rural areas. In contrast, there is imperfect competition in the low-skilled labour markets where the total demand does not equal the total supply. There is an excess supply of labour, which remains unemployed. The wage rate paid to low-skilled workers is fixed in real terms in both urban and rural areas. In line with the characteristics of the labour market in South Africa and the short-term nature of this model, it is assumed that employees of the government are exogenously determined with the wage rates being fixed.

The supply of each category of labour is exogenous. Household labour supply specification takes into account the existence of unemployment for low skilled labour categories. We assume that low skilled employment is rationed on the demand side and workers have the same opportunity (probability) to be hired regardless of the household to which they belong.

Goods and services consumed by households are grouped by purpose (food, personal care, housing, etc.). A single commodity category (e.g., petroleum product) enters into one or several groups of consumption by purpose (e.g. household fuel and transport). Representative urban and rural households maximize unitary utility functions over the group of consumption by purpose, subject to the constraint of their revenue. Thus, households' expenditure on commodities combine a Linear Expenditure System (LES) function over various groups of consumption by purpose, and a Cobb-Douglas (CD) function over commodity categories for each group of consumption by purpose.

Equilibrium in the foreign exchange market obtains through adjustments of the real exchange rate. The current account balance is therefore given and set to the base year level. Hence, with fixed foreign borrowing and transfers from abroad, it means that to import more, the country required lower imports and or higher exports of other goods to maintain the balance of the current account. The real exchange rate adjusts under pressure to change export or import quantities as the demand and supply of foreign currency occurs.

As in most CGE models, the Government is assumed to be passive in the sense that it does not optimize any objective function. Rather it is there to regulate economic activity. It derives revenue from revenues raised from indirect taxes, direct taxes, trade taxes and net foreign borrowing. It spends on subsidies, current expenditures on the services provided by the public sector, investment and transfers to households and firms. Government's transfers, current expenditures and investment expenditures are fixed. Borrowing on the domestic credit market covers the government deficit.

Private savings are investment driven. Savings come from exogenous constant savings rates for households and by residual savings from firms. Private savings are equal to net savings available after government borrowing is covered. The model is homogenous of degree one in all prices and nominal values. The "numeraire" is the nominal exchange rate, with the real exchange rate remaining endogenous. All nominal values are thus measured relative to the price of internationally traded goods. The model solves for one-period equilibrium and results have to be interpreted in comparative static terms.

2.4.4 Elasticities

CGE models use SAM data as well as calibrated and non-calibrated parameters. Results of the model are sensitive to all the data and especially to elasticities since there are not calibrated. These data come from econometric estimates. However there is usually a shortage of such econometric data and thus modellers are sometimes forced to rely on other information from other models or even guesstimates. As such it is important to undertake sensitivity analysis of the results in order to determine values that alter the key results and their interpretation.

Our analysis distinguishes four sets of parameters that entered into the model: the trade parameters (import substitution or Armington elasticities, and export supply and demand elasticities), the production technology parameters (substitution elasticities between factors), the demand parameters for households (demand elasticity of income, and Frisch parameter), and the labour supply parameters (unemployment rates).

Estimate of trade parameters, that is industry-level Armington elasticities and aggregate export supply and demand elasticities, are available for South Africa. According to the short-term perspective of the analysis, our study uses the short-run Armington elasticities from Gibson (2003) and the low-bound export supply and demand elasticities from Behar and Edwards (2004). Unemployment rates come from the 2001 labour force survey report by Statistics South Africa (2001). This study borrows estimates for parameters in household's demand and production activities of industries literature surveyed by Annabi et al. (2006). Sensitivity analysis of these shows that overall results are not significantly affected by small changes in these parameters.

2.4.5 How does the model work?

A capital increase in a sector introduces disequilibrium in that sector. Something must equilibrate the capital market in that sector. In this model the rental rate of capital adjusts, specifically, it falls with an injection of capital. As capital is injected into a sector, there is an increase in output in that sector. This sector then demands other factors that are needed in production, that is labour as well as other material inputs. The increased demand for labour increases its wage and this will primarily depend on which type of labour best complements capital, the assumptions about mobility of labour as well as the intensity with which labour and capital are used in that sector. As the price of this type of labour increases, other sectors that are not directly benefiting from increased input demand, are likely to reduce their hiring and will likely see a fall in output. The incomes of households will depend on the net effect of the increased capital with reduced rates of return and the impact on labour. Capital endowed households are likely to benefit and those who own labour that best compliments capital are also likely to benefit.

Depending on what happens to incomes, and thus consumption and investment as well as the difference between exports and imports, GDP will increase or decrease. The effect of increased capital will lead to reduced prices in the affected sectors and those sectors that also have to increase output in order to accommodate the increased output of the affected sector. If these effects are strong enough, overall prices may decrease in the economy. However, because certain labour types will receive an increase in wages, thereby increasing costs of production, there will be other sectors whose prices will be increasing. The overall Consumer Price Index (CPI) will depend on which sectors exert the higher effect. The effect of hiring and wage rate changes as well as capital value will affect the incomes of households who will in turn adjust their consumption, and savings. Using the equivalent variation (EV) measure, we will be able to tell if welfare has gone up (an increase in EV) or if welfare has decreased (a fall in EV).

2.5. Key results and discussion

The following simulations were performed using the CGE model:

- **Simulation 1:** The impact of a 10% increase in water infrastructure above the baseline.
- **Simulation 2:** The impact of a 10% increase in health infrastructure above the baseline.
- **Simulation 3:** The impact of a 10% increase in electricity infrastructure above the baseline.
- **Simulation 4:** The impact of a 10% increase in roads and transport infrastructure above the baseline.
- **Simulation 5:** The impact of a 10% increase in communications infrastructure above the baseline.

The simulated amounts are the benefits to different sectors as a result of the infrastructure initiative. Results on economic growth, exports, investment, sectoral performance, labour demand, and income distribution between households among others are discussed.

A 10% increase in water infrastructure above baseline

This simulation takes into account all infrastructure investment in water. The macroeconomic impact of the full simulation is given in Table 14. A 10% increase in capital in the water sector leads to an increase in the output of the water sector and related sectors. This increase leads to a slight increase in GDP of 0.02%. Because of increased output, consumer prices fall slightly, by 0.04%.

The increase in capital means that labour becomes more expensive and its wage goes up by 0.01%. The urban high-skilled workers (who are closer substitutes to capital compared to unskilled workers and who are used the most in the water sector) contribute to most of this increase. Employment generally falls in the economy due to the reduction in the overall price of capital.

Table 14: Macroeconomic effects of a 10% increase in water infrastructure

Variable	Variation (%)
Price index	-0.02
Import	0.01
Export	0.00
Unemployment rate*	0.01
Wage	0.01
Rent	-0.06
Consumer Price Index (CPI)	-0.04
Consumption	0.03
Saving	-0.19
Investment price	0.15
Investment	0.02
GDP	0.02
Employment	-0.01
Employment urban	0.00
Employment rural	-0.10
Gross wage high skilled	0.05
Gross wage low skilled	-0.03
Gross wage high skilled urban	0.05
Gross wage low skilled urban	-0.02
Gross wage high skilled rural	-0.01
Gross wage low skilled rural	-0.15
Gross wage urban	0.01
Gross wage rural	-0.12

Note: Variations computed as per cent changes; *except for unemployment rate expressed as percentage point changes.

Source: Compilation from water infrastructure shock using the CGE model for South Africa

A sectoral breakdown showing which sectors gain from this infrastructure programme is discussed next. Water consumes a lot of light manufacturing products, (such as chemicals, pumps etc.) and services (such as electricity, insurance etc.). As water supply increases, this induces an increase in the demand for these products, leading to price increases for the product. This demand induces price increases in light manufacturing and services sectors. At the same time those sectors that use a lot of water, such as food manufacturing and mining, benefit from the reduced prices and increase their output. The increased supply in these sectors leads to reduced prices in the affected sectors.

The policy is neutral on household welfare as Table 15 shows. Changes in the cost of living are exactly offset by changes in the disposable income, leaving the equivalent variation unaffected.

Table 15: Welfare effects of a 10% increase in water infrastructure (per cent)

	Disposable income	CPI	Equivalent variation
Urban households	0	-0.1	0
Rural households	-0.1	0	0
ALL	0	0	0

Note: Equivalent variation of gross income

Source: Compilation from capital shock results

A 10% increase in health infrastructure above baseline

This simulation involves a 10% increase in health infrastructure. In this experiment GDP goes up by 0.13%, driven mainly by consumption that is increasing substantially by 0.24% (see Table 14). The health sector tends to be more labour intensive than the other five sectors. Thus all skill types of labour experience an increase in demand and unemployment falls.

Table 16: Macroeconomic effects of a 10% increase in health infrastructure

	Variation (%)
Price index	-0.19
Import	0.06
Export	0.06
Unemployment rate*	-0.10
Wage	0.06
Rent	-0.54
CPI	-0.20
Consumption	0.24
Saving	-0.21
Investment price	-0.03
Investment	-0.03
GDP	0.13
Employment	0.12
Employment urban	0.12
Employment rural	0.15
Gross wage high skilled	0.44
Gross wage low skilled	0.01
Gross wage high skilled urban	0.26
Gross wage low skilled urban	0.01
Gross wage high skilled rural	4.29
Gross wage low skilled rural	0.00
Gross wage urban	0.11
Gross wage rural	0.89

Note: Variations computed as per cent changes; *except for unemployment rate expressed as percentage point changes.

Source: Compilation from health infrastructure shock using the CGE model for South Africa

As services prices fall, those in the rest of the economy also fall and the overall CPI falls. The falling input prices in the economy induce an increase in output in most sectors. The sectors that benefit the most are, once again, services sectors that have strong linkages with this sector. The sectors that benefit the most use unskilled labour relatively intensively and, as a result, there are benefits to this type of labour. This is reflected in the incomes of the households, which increase in rural areas. The advantage of falling prices means that both rural and urban households see an increase in their welfare.

A 10% increase in electricity infrastructure above baseline

A 10% increase in capital infrastructure in the electricity sector leads to the macroeconomic effects displayed in Table 17. The simulation leads to an increase in GDP of 0.19%. Private consumption rises as incomes have gone up. With a given current account balance, the increase in output induces a real exchange rate depreciation, which leads to an increase in exports and consequently imports. The increase in investment, consumption and exports all contribute to the increase in GDP.

Table 17: Macroeconomic effects of a 10% increase in electricity infrastructure

	Variation (%)
Real Exchange Rate	-0.24
Imports	0.18
Exports	0.22
Unemployment rate*	-0.17
Wage	-0.04
Rent	-0.28
Consumer Price Index	-0.12
Consumption	0.16
Saving	0.50
Investment Price	0.02
Investment	0.43
GDP	0.19
Employment	0.20

Note: Variations computed as per cent changes; *except for unemployment rate expressed as percentage point changes.

Source: Compilation from electricity infrastructure shock using the CGE model for South Africa

The main mechanism behind the mesoeconomic/sectoral production effects comes from the investment closure. As demand for investment products increases in line with increased infrastructure demand, industries, whose products are used intensively in investment, experience substantial increases in their demand and consequently their output. Coal is heavily utilised in electricity production and experiences the highest increase in output. Heavy manufacturing, light manufacturing and mining have among the highest shares of their product in total investment demand and hence experience higher than the economy-wide average increase.

Consumption prices in real terms decrease for all households. In contrast, disposable income increases for urban households while it falls for rural households. However, the price reductions in real terms are more important so that the welfare effect, as measured by the equivalent variation, is positive for all households.

A 10% increase in roads and transport infrastructure above baseline

The fourth simulation mimics an increase in transport infrastructure by simulating a 10% increase in capital used in the transport sector. Table 18 reports on the macroeconomic results of this simulation. This increase leads to an increase in GDP of 0.44%. This is afforded by the increase in investment, consumption and government consumption that all go up. The unemployment rate falls while the price index increases marginally by 0.04%. As savings are investment driven, the increase in investment requires an increase in savings. This comes from increasing incomes of households, government and firms.

Table 18: Macroeconomic effects of a 10% increase in roads and transport infrastructure

	Variation (%)
Price index	0.04
Import	0.30
Export	0.52
Unemployment rate*	-0.14
Wage	0.61
Rent	-0.64
CPI	0.19
Consumption	0.41
Saving	0.82
Investment price	0.12
Investment	0.51
GDP	0.44
Employment	0.16
Employment urban	0.14
Employment rural	0.46
Gross wage high skilled	1.46
Gross wage low skilled	0.32
Gross wage high skilled urban	1.13
Gross wage low skilled urban	0.28
Gross wage high skilled rural	8.31
Gross wage low skilled rural	0.62
Gross wage urban	0.64
Gross wage rural	2.22

Note: Variations computed as per cent changes; *except for unemployment rate expressed as percentage point changes.

Source: Compilation from roads and transport infrastructure shock using the CGE model for South Africa

The services sectors, which have the larger backward linkages with transport, benefit from increased demand for inputs. This allows them to produce more output. The sectors with large forward linkages with transport, such as mining, are able to increase output at lower prices, as transport inputs become cheaper.

Table 19 shows that household welfare increases as indicated by the positive equivalent variation. Welfare increases more for rural households than for urban households. This is because they receive a higher boost to their disposable income compared to urban households from the simulation.

Table 19: Welfare effect of a 10% increase in roads and transport infrastructure (per cent)

	Disposable Income	CPI	Equivalent Variation
Urban households	0.4	0.2	0.2
Rural households	0.8	0.2	0.5
ALL	0.5	0.2	0.3

Note: Equivalent variation of gross income

Source: Compilation from capital shock results

A 10% increase in communications infrastructure above baseline

The results of a 10% increase in capital used in the communications sector show similar patterns to those of the previous simulations. GDP goes up by 0.34%. The growth of communications induces increases in investment, consumption and exports, leading to an increase in GDP. As savings are investment driven, the increase in investment requires an increase in savings. As will be seen later, this comes from increasing incomes of households and firms. Government dis-saving also falls by 1.3%, as a result of indirect product and direct taxes that go up while import taxes fall. The overall effect is an increase in government revenue leading to a reduction in government dis-saving.

The communications sector has strong backward and forward linkages with the services industry. Hence, as its output increases, the output of services also increases with the result that prices fall in the services sector. Other sectors that use services sector inputs intensively, especially services themselves, benefit further from the reduced prices. Petroleum, which is a main input in communication, responds by increasing output.

As demand for labour falls, especially in the rural areas, rural households see a 0.4% fall in their income while urban households' income increases by 0.3%. The CPI decreases in the urban areas and remains the same in the rural areas, with the result that the equivalent variation increases for urban households and falls for rural households. Overall, welfare increases following an increase in capital in the communications sector as shown in Table 20.

Table 20: Welfare effect of a 10% increase in communications infrastructure (per cent)

	Disposable income	CPI	Equivalent Variation
Urban households	0.3	-0.1	0.3
Rural households	-0.4	0.0	-0.3
ALL	0.2	-0.1	0.2

Note: Equivalent variation of gross income

Source: Compilation from capital shock results

2.6. Conclusions and recommendations

This chapter confirms that increases in public spending, above those budgeted for, on infrastructure in the medium term expenditure framework, have beneficial effects on the economy. Gross domestic product increases as consumption and investment increase. On sectoral effects, output of the affected sectors increases as capital increases and the sectors with strong backward and forward linkages are also affected. Furthermore, analysis of the economic and welfare effects shows that the impact depends on the nature of factor markets. As capital increases, labour becomes relatively scarce and its value increases in the capital-intensive sectors. In the labour-intensive sectors, the type of labour that is used intensively sees a fall in its wages when there is an injection of capital. These differential effects mean that household effects also differ between rural and urban areas. Generally though, overall household welfare improves with these policies.

The chapter finds that maintaining, expanding, and modernising South Africa's infrastructure is beneficial for the country's continued economic wellbeing and in raising the quality of life for households. The chapter acknowledges, based on these results and experience, that fiscal stresses in national, provincial and local budgets, along with growing competition from the rest of the world and other domestic competing uses of limited resources, demand urgent efforts to improve investment efficiency, programme coordination, and economic productivity in the nation's infrastructure programmes.

The following recommendations are made:

1. The government should review upwards the departmental baselines and increase the quantum of appropriate investment in public infrastructure (national, provincial and municipal): Macro-micro modelling done by the Commission, as well as international experience, has shown that investment in appropriate infrastructure leads to reduced unemployment and poverty. The chapter recommends that increased funding be directed towards infrastructure programmes that are linked to basic services including water, health, electricity, roads, transport and communication.
2. For funds already in the system, the chapter recommends that the government should improve the quality of targeted outcomes of infrastructure investment towards employment creation and poverty reduction. Leveraging from efficiency gains throughout all baselines of departments should be made an ongoing exercise, as it strengthens the link between planning and spending, especially within the provincial sphere of government.
3. The chapter recommends that the government should develop and implement a comprehensive national infrastructure maintenance strategy, especially for those infrastructure classes with a high impact on unemployment and poverty, with dedicated maintenance objectives. To achieve sustainable outcomes, the government must improve management of infrastructure investment by building in/safeguarding adequate future lifecycle replacement and maintenance provision of the infrastructure.

4. The chapter recommends that government develops appropriate funding mechanisms through intergovernmental coordination to facilitate, integrate and sequence infrastructure planning and delivery. Such planning should:
 - a) Support stronger municipal management, especially for capital expenditure and maintenance programmes, and resolve lingering policy uncertainty. A case in point relates to the Regional Electricity Distribution reforms which have stalled and, as a consequence, are currently undermining municipal investment in infrastructure and maintenance.
 - b) Improve long-term planning for state investments:
 - i. Use lessons learnt from South African institutions such as Eskom, Transnet, and South African National Road Agency Ltd (SANRAL) that have done a good job with infrastructure scale up previously. Agencies that have been successful seem to be ones that build and operate the asset and this is what seems to give the right incentives for effective infrastructure delivery. This could well be the right model for South Africa.
 - ii. Complete comprehensive infrastructure monitoring and evaluation system.
 - iii. Use common methodologies for calculating costs and benefits for project appraisal.

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2.7.2 List of other publications produced by project

Annual Submission for 2010/11 Division of Revenue

Chapter 3: Efficiency and Equity Effects of Social Grants

3

Servaas van der Berg, Krige Siebrits and Bongisa Lekezwa (Department of Economics, University of Stellenbosch)

3.1. Introduction

Social security systems provide protection against risks of income loss due to contingencies such as old age, unemployment, disability, or injuries sustained at work. As such, they play an important consumption-smoothing role by redistributing income across time. Apart from this function, social security systems also redistribute income between generations and amongst the insured according to risk and vulnerability. Social security systems typically consist of three parts:¹

- **Social insurance:** benefits organised by the state and funded by means of specified contributions by employers and employees
- **Social assistance (grants):** non-contributory cash or in-kind grants to provide protection to the most needy
- **Informal insurance:** cash or in-kind assistance from the extended family and other social networks

Despite being a middle-income country, South Africa has an extensive formal social security system with many of the trappings of a modern welfare state. This paper focuses on the social assistance part of the system, which is particularly well developed by international standards. Section 2 outlines the evolution and the present nature and coverage of the social security system in South Africa. Section 3 discusses the role and economic effects of social grants in other countries, as well as broad currents in the reforms of social assistance systems. Against this background, Section 4 surveys existing literature and presents new evidence on the efficiency and equity effects of social grants in South Africa. Section 5 concludes the paper.

3.2. South Africa's Social Security Framework

History of social security in South Africa²

The origins of the South African social security system should be sought in attempts to create a welfare state for whites during the apartheid era. The objective was to protect whites against various contingencies by means of social insurance and, when that failed, social assistance (social old-age pensions, for example, protected elderly whites with inadequate private pension income from indigence).

The first pension fund in South Africa was established in the South African (Transvaal) Republic in 1882. The earliest pension funds were not prescribed by legislation or by convention; as such, they did not represent social insurance. In the 1920s, however, many skilled (mainly white) employees obtained occupational retirement insurance. Binding industrial-council and other agreements between employers and employees eventually introduced an element of compulsion into many occupational insurance schemes, thus turning them into quasi-social insurance schemes.³ The Pensions Funds Act of 1956 was a major milestone as far as regulation of the financial responsibilities of pension

¹ Social security systems often are complemented by other social programmes such as education and training programmes, health insurance schemes, specialised care facilities and protective labour-market policies. These programmes fall outside the scope of this paper.

² This section draws on Van der Berg (1997) and Van der Berg (2002).

³ In South Africa, unlike in many other countries, contributions paid by employers and employees are not included in social security taxes, because they do not flow through the coffers of the state. International comparisons of the extent of social security provision based on government spending ratios therefore misrepresent the scope of insurance provision in South Africa.

funds is concerned. The norm of excluding less-skilled workers from coverage remained, however; in the apartheid context, this meant that almost all blacks were excluded. Occupational retirement insurance was expanded to less-skilled workers only in the 1960s and early 1970s, when rapid industrialisation increasingly drew black workers into industry. The total membership of occupational and private retirement funds increased from 923 000 in 1958 to 9 309 000 in 1993 – an average annual growth rate of almost 7 percent over a period of more than three decades (Smith Committee, 1995: D2.4a).⁴ Some industries (such as agriculture, domestic service, and trade, catering and accommodation) nonetheless remained poorly covered. The majority of the black labour force remained outside the formal social insurance net, either because of unemployment or because they occupied jobs not covered by social retirement insurance.

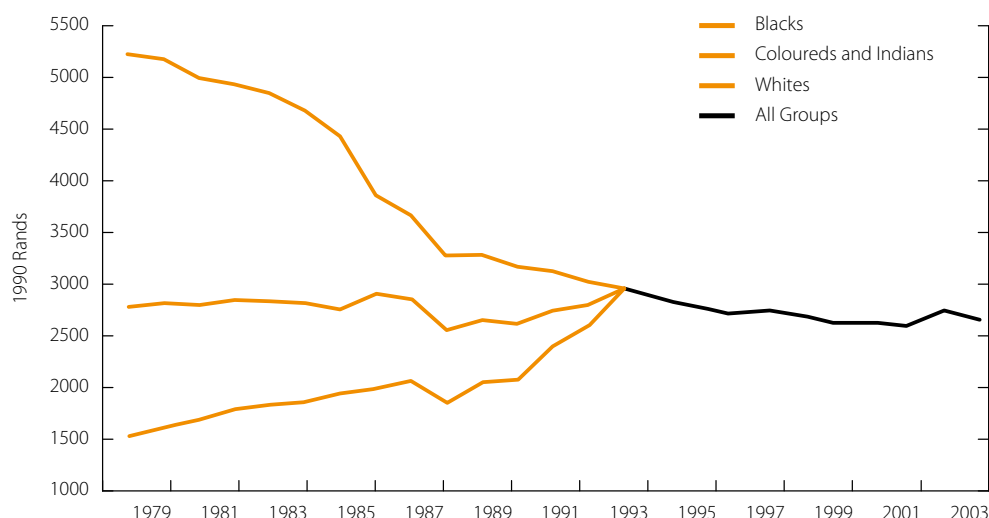
Various racially differentiated social grants were introduced between 1910 and 1950, including military pensions (1919), social pensions (1928), grants for the blind and the disabled (1936 and 1937), pensions for war veterans (1941) and family allowances for large poor families (1947). Protection against unemployment remained comparatively underdeveloped, because job reservation and higher education and skill levels assured most whites of employment since the time of the Great Depression. The institution that was established to do so, the Unemployment Insurance Fund (UIF), only provided cover against cyclical unemployment, which was usually mild and of relatively short duration. State welfare expenditure helped to maintain white support for the apartheid regime. By comparison, the safety net for other groups initially was rudimentary. The grants were progressively extended to other population groups over time, however, albeit initially at much lower benefit rates.

A major impetus for social reform from the early 1970s onwards came from attempts to legitimise the homeland system and the tricameral parliament (which consisted of white, coloured and Indian chambers). Attempts at co-option led to rapid growth in the amounts flowing to the homelands and subsequently, albeit even before the establishment of the tricameral parliament in 1983, to the coloured and Indian communities. The fiscal costs of incorporating the relatively small coloured and Indian groups into a welfare society were not too great a burden on the budget, though this coincided with other events that also contributed to fiscal stress.

The far greater fiscal challenge, namely full incorporation of blacks into the system and elimination of the racial barriers that had allowed the welfare state for whites to flourish, was postponed. Only in the latter part of the 1980s did the government commit itself to eliminating racial differentials in benefit structures of all social programmes. Fiscal constraints, however, meant that the equalisation of benefit levels could be achieved only by combining decreases in the real value of the maximum social pension received by whites with increases in that received by blacks. This was most readily accomplished in areas where resistance to reducing white benefit levels was weakest. One notable example was means-tested social old-age pensions, because relatively poor elderly whites were a small and politically marginal group whose benefits could be reduced with little fear of political backlash. By 1993 the pension gap had been closed completely and discrimination in the application of the means test had been eliminated, with all groups receiving roughly the same real grant level per beneficiary as was received previously by coloureds and Indians (see Figure 2).

⁴ These figures reflect extensive duplication, because many South Africans belong to more than one fund.

Figure 2: Real value of the maximum annual social pension (1979-2003)



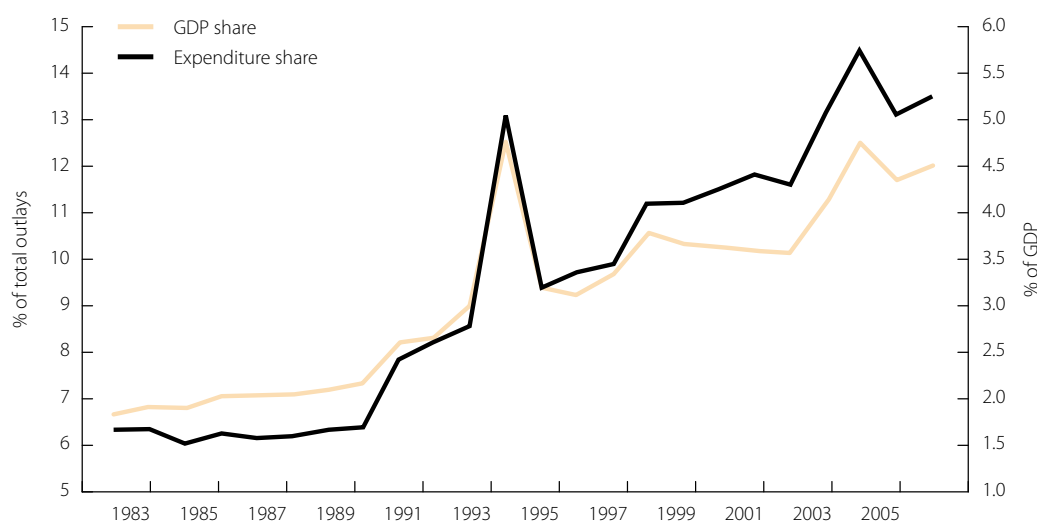
The equalisation of benefits, introduction of the child support grant in April 1998 and rapid growth in take-up of disability and foster-care grants led to sharp increases in government spending on social assistance grants from the late-1980s onwards. Figure 3 shows general government spending on social protection (which includes outlays by the contributory social funds and grants expenditure by government departments) as percentages of general government outlays and gross domestic product (GDP). General government spending on social protection increased from 6.2 percent of total outlays in 1982/83 to 13.4 percent in 2005/06 (i.e. from 1.8 percent to 4.4 percent of GDP).⁵

The number of beneficiaries of social grants increased from 2.4 million in April 1998 to a projected 12.4 million in 2008 (cf. Table 21). Projections published by the National Treasury (2008: 96) in February 2008 suggested that 66.6 percent of all grants paid in April 2008 would have been child support grants; other large categories would have been old-age pensions (17.9 percent), and disability grants (11.4 percent). Although all the grant types except the war veteran grant and grant-in-aid experienced significant growth in beneficiary numbers during the past decade, the child support grant clearly was the major driver of such growth in the system as a whole. Because it is the smallest of the grants in rand terms, however, the child support grant does not dominate social assistance expenditure.⁶ The 2008/09 Budget provides for social assistance expenditure of R70.7 billion, of which R26.4 billion is allocated for old-age pensions, R21.6 billion for child support grants, R17.7 billion for disability grants and R5.0 billion for other grants (National Treasury, 2008: 319).

⁵ The sharp spike in both ratios in 1993/94 reflected a special transfer of R7 340 million to the Government Employees Pension Fund.

⁶ Section 2(b) provides more detail on the current monthly values of the various grants.

Figure 3: General government spending on social protection (1983/84-2005/06)



Source: South African Reserve Bank Quarterly bulletins (various issues)

Table 21: Beneficiaries of social assistance grants (1998-2008)

Grant	Number of beneficiaries		
	1998	2003	2008 ¹
Old age	1 697 725	2 009 419	2 225 354
War veterans	10 525	4 594	1931
Disability	660 528	953 965	1 409 434
Grant-in-aid	9 183	12 787	–
Foster care	43 520	138 763	446 994
Care dependency	8 172	58 140	110 153
Child support	–	2 022 206	8 208 334
Total	2 429 653	5 808 494	12 402 200

Source: National Treasury *Budget review* (various issues)

Note: ¹ Projections made in February 2008

Its apartheid-era roots therefore influenced the South African social security system in at least two important ways. First, the general extension of a system that initially was created to provide comprehensive protection for a segment of the population rendered South African social assistance unusually comprehensive for a middle-income developing country. Second, the system's initial focus on the particular needs of whites (for whom unemployment historically was not a major risk), made it inadequate for an economy in which structural unemployment became a crucial problem.

The existing social security system

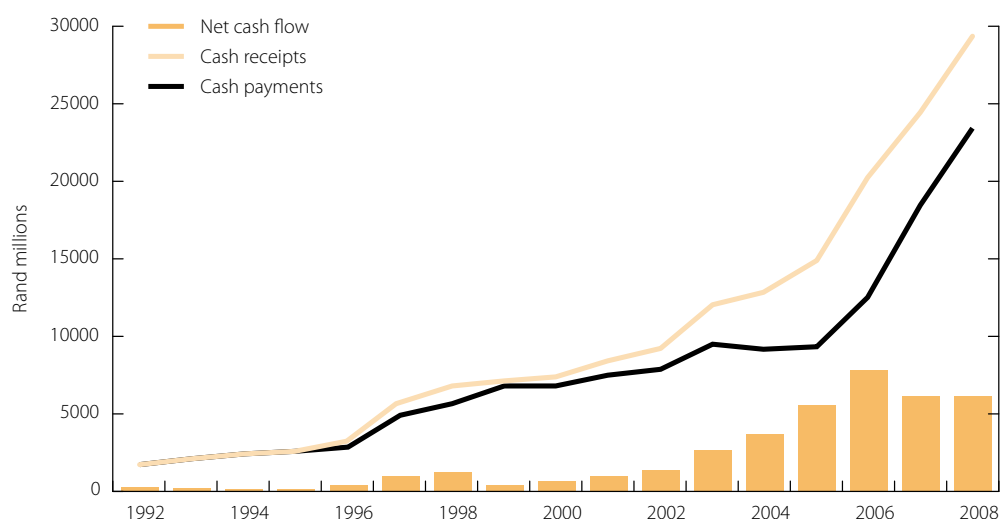
The *insurance component* of the South African social security system consists of three contributory social security funds that provide conditional income support or compensation for defined-risk events (the Unemployment Insurance Fund, the Compensation Funds, and the Road Accident Fund) and – in the indirect sense explained in Section 2(a) – a large number of occupational pension schemes. Figure 4 shows that the consolidated social security funds generally have been in surplus in recent years. The Compensation Funds and the Unemployment Insurance Fund have registered cash-flow surpluses since 1999/00 and 2001/02, respectively, but the Road Accident Fund has remained deficit-ridden.

As was indicated in Section 2(a), the number of recipients of social assistance grants increased rapidly during the past few years. The estimated 12.4 million beneficiaries in April 2008 represented more than one quarter of the South African population – a figure unmatched by any other developing country. Social assistance spending in South Africa, which amounted to 3.5 percent of GDP in 2006, is high even when compared to that of Western European

countries at the height of the welfare state in 1980. Of the countries shown in Figure 5, only Denmark had a higher social expenditure ratio than is presently the case for South Africa. South Africa's government spending on social grants exceeds the GDPs of 88 countries, including some 35 African countries.

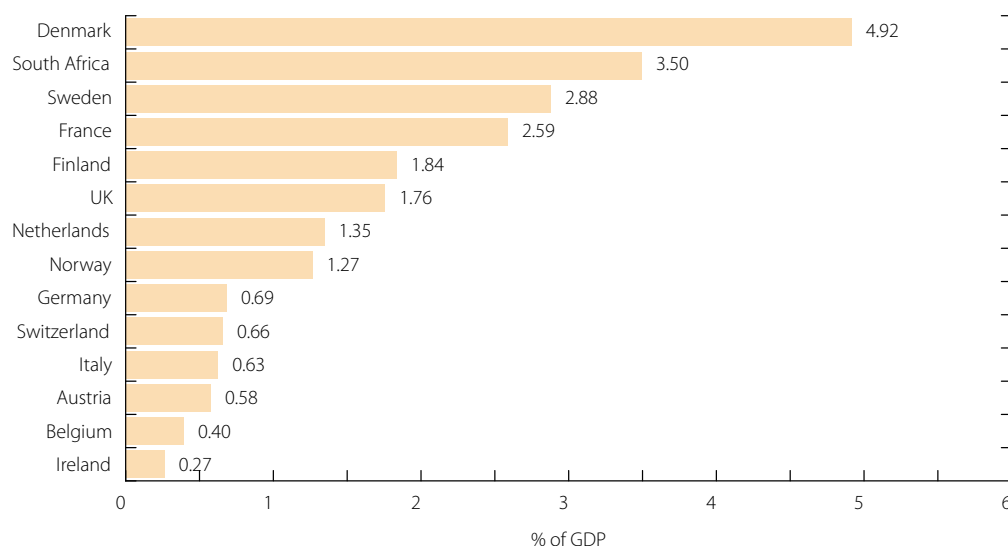
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Figure 4: Cash-flow of the social security funds (1991/92-2007/08)



Source: South African Reserve Bank Quarterly bulletins (various issues)

Figure 5: Social assistance spending as % of GDP (Western Europe 1980; SA 2006)



One way to outline the scope of South African social security system is to compare it to those of the advanced welfare states. The “life course framework”, which is associated with northern European social protection systems, includes interventions for each of the life stages of individuals and families (cf. Table 22). Contributory programmes and universal tax-financed benefits dominate such systems; by comparison, the targeted social assistance components are small. Targeted programmes, however, play an important residual role by assisting those not reached by other elements of social security programmes (De Neubourg, Castonguay and Roelen, 2007: 9-13).

Table 22: A life course social security framework

Age 0-16	Age 16-24	Age 24-60	Age 61+
Universal child allowances	Educational allowances	Income loss insurance	Universal pensions
		Means-tested social assistance	Compulsory contributory pensions
			Contributory survivors' pensions
			Means-tested social assistance
Disability allowances	Disability allowances	Disability allowances	Disability allowances

Source: De Neubourg, Castonguay and Roelen (2007)

Table 23 lists most aspects of the South African social security system in a related but adapted framework.⁷ South Africa relies much more heavily on means-tested social assistance grants than the advanced welfare states; contributory social insurance and universal social assistance programmes, on the other hand, are relatively less well developed in South Africa. The remainder of this section discusses the various elements of the South African social security system in more detail.

Table 23: Elements of the South African social security framework

Childhood	Working age	Old age
Means-tested child support grants	Work-related injury compensation	Means-tested social pensions
Means-tested care dependency grants	Means-tested disability grants	Means-tested war veterans' grants
Foster care grants	Temporary unemployment benefits	Occupational pensions

Childhood

The *child support grant*, which was introduced in April 1998 to replace the child maintenance grant, currently is the most important form of assistance for children in poor families. These grants initially were paid to the primary caregivers of children under the age of seven years, but the coverage of the programme was extended gradually and from January 2009 it will cover children until their fifteenth birthday.⁸ This expansion of the programme, coupled with rapid growth in the take-up rate in the new millennium, contributed to the sharp increase in the number of beneficiaries to an estimated 8 208 334 in April 2008 (see Table 21). According to the Department of Social Development (Rakoloti, 2008), recent changes to the means test that determines eligibility for the child support grant are likely to increase the number of beneficiaries by a further 1 million, that is, by about 12 percent.⁹

The monthly value of the child support grant initially amounted to R100. Pauw and Mncube (2007: 18-19) showed that its real value decreased until 2000, but increased fairly rapidly thereafter. Following increases of R10 per month on 1 April 2008 and 1 October 2008, the grant now amounts to R220 per month.

Care dependency grants are paid to the parents or caregivers of children between the ages of 1 and 18 years who suffer from severe physical and mental disability and are in permanent home care. (Disabled persons between the ages of 18 and the retirement age receive state disability grants.) In April 2008 these grants, which now amount to R940 per month, were paid to an estimated 110 153 care-dependent children. The regulations announced on 30 May 2008 provide for a changed means test for care dependency grants similar to that for child support grants.

The beneficiaries of *foster care grants* are children deemed in need of care by the courts. Such children are placed in the custody of foster parents designated by the courts and supervised by social workers. The aim of the grant is to reimburse the foster parent or parents for the cost of caring for children who are not their own; as such, the grant is not means tested and falls away if the child is adopted formally. Foster care grants now amount to R650 per month, and in April 2008 were paid to the foster parents of 446 994 children.

Working age

It is well known that South Africa suffers from exceptionally high unemployment that is largely of a structural nature. Statistics South Africa's (2008b) *Labour force survey* for the first and second quarters of 2008 reported an

⁷ Two elements are omitted in the table: compensation paid to victims of road accidents by the Road Accident Fund, and temporary grant-in-aid relief payments.

⁸ Resources permitting, the Government intends to increase the qualification age limit for the child support grant up to the eighteenth birthday in the medium term (Skweyiya, 2008).

⁹ Section 2(c) discusses the mean tests for the various social grants in more detail.

unemployment rate of 23.5 percent in the second quarter, which implies that almost 4.2 million members of the labour force were unemployed at the time of the survey. The role of the **Unemployment Insurance Fund** (UIF) therefore is particularly important. Employees and employers each contribute 1 percent of the employee's monthly earnings up to a threshold of R12 478 to the UIF, and the proceeds are used to pay benefits to contributors or their dependents in instances of unemployment, illness, death, maternity and adoption of a child. The amended Unemployment Insurance Act of 2003 changed the coverage and benefits of the UIF in important ways:

- Coverage was extended to include domestic and seasonal workers.
- Coverage was extended to include employees earning more than the specified earnings ceiling (but contributions and benefits were capped at this level).
- A graduated income replacement rate was introduced (the rate ranges from 60 percent for low-income earners to 38 percent for higher-income earners).
- A limit on benefits accrual to 238 days in a four-year period was introduced.
- Contributors resigning voluntarily from jobs were excluded from benefits.

These reforms have had important ramifications for the Fund. The extension of coverage to employees earning more than the specified earnings ceiling implied incorporation of a group whose contributions are large relative to their risks of unemployment; this should improve the solvency of the UIF and enhance its redistributive impact. Although it has strengthened redistribution within the UIF, the introduction of differentiated replacement rates has weakened its role as an income-maintenance instrument (especially for upper income earners).

A turnaround strategy has markedly improved the finances and financial management of the UIF. The National Treasury (2008: 97-98) reported that the Fund had achieved unqualified audit reports during the past two years, and an actuarial valuation in March 2007 indicated that it would be able to meet its cash-flow requirements over the next ten years for a range of possible claims scenarios. The UIF's capital and reserves amounted to R18.5 billion at the end of March 2006.

The basic role of the UIF remains the provision of short-term benefits that combat the effects of frictional and cyclical unemployment. It was not designed to combat large-scale structural unemployment. The reality that only about one in every seven unemployed persons (600 000 out of a total of 4.2 million) receive UIF benefits is indicative of the limited scope of unemployment compensation in South Africa.

The **Compensation Funds** provide income benefits and medical care to workers injured on the job, funding for the rehabilitation of disabled workers, and survivor benefits to the families of victims of work-related fatalities. The main Compensation Fund is administered by the Department of Labour and covers workers in sectors other than mining and construction, while the Department of Health administers the Mines and Works Compensation Fund, which provides benefits to victims of working conditions-related lung diseases.¹⁰ Levies on employers finance these funds. Various efficiency-enhancing reforms of the main Compensation Fund have been implemented as part of a turnaround strategy initiated in September 2007. The combined accumulated surplus of the compensation funds at the end of March 2007 amounted to R7.2 billion.

State disability grants are available to people disabled in circumstances other than road and work-related accidents. The grant is paid to disabled persons between the ages of 18 and the retirement age who do not receive other state grants and who are not cared for in state institutions. Eligibility is determined by strict medical-based criteria: the disability should be permanent and sufficiently severe to prevent the affected person from entering the labour market. Hence, the purpose of the grant is to compensate disabled persons for loss of income. The same means test applies to disability grants and social old-age pensions – see Section 2(c).

Old age

South Africa has a well-established **retirement fund** market. Membership of an occupational fund is widely accepted as an obligatory condition of employment, and the coverage rate for formal-sector employees of about 60 percent is high by international standards. According to the National Treasury (2007a: 5), South Africa's ratio of pension

¹⁰ The mining and construction sectors have separate compensation arrangements.

fund assets to GDP of 63 percent compares favourably with those of countries such as Australia, Chile, Malaysia, Singapore and the United Kingdom.

Coverage rates, however, vary considerably across income categories. Middle- and high-income earners are well covered: the National Treasury (2008: 100-101) recently reported that almost all formal-sector employees who earn more than R120 000 per annum belong to a pension, provident or retirement fund. Favourable tax treatment contributed to this relatively high level of cover. Among lower-income earners, however, coverage is much less comprehensive: some 360 000 formal employees in the R60 000 to R120 000 income category and fully 2.7 million of those earning less than R60 000 per annum are without retirement coverage. In total, only an estimated 5.9 million of the 8 million formal-sector workers (i.e. roughly one-half of the about 12.3 million employed and one-third of the 16.8 million economically active South Africans) have retirement coverage (National Treasury, 2008: 100).

Moreover, income replacement rates for pension and provident fund members often are inadequate because of limited access to cost-effective instruments combined with early withdrawals. Estimates indicate that less than half of those who reach retirement age with a funded pension receive more than 28 percent of their pre-retirement incomes (National Treasury, 2007a: 5). The Smith Committee (1995: 18) found that 40 percent of occupational pensions paid had a lower value than the social old-age pension.

Lower-income South Africans (including many formal-sector workers) therefore depend on *social pensions* in old age. The means-tested social pension is payable to persons of retirement age and older; during his Budget Speech in February 2008, the Minister of Finance announced that the retirement age for men will be lowered gradually from 65 to 60 years to bring it in line with those of women by 2010. As was indicated earlier, the maximum amount of the pension currently is R940 per month and in April 2008 an estimated 2 225 354 elderly people received it. The means test for the social old-age pension is discussed in Section 2(c).

Targeting and means testing

Targeting and means testing are important aspects of the South African social security system for at least three reasons. First, their aim is to channel resources allocated to social security programmes to those in greatest need. Hence, means testing and other targeting mechanisms are crucial key determinants of the efficiency of resource use in social security systems. Second, they link and integrate the occupational insurance and social assistance aspects of the system. Third, they have major influences on the behavioural incentives created by the system.

Targeting

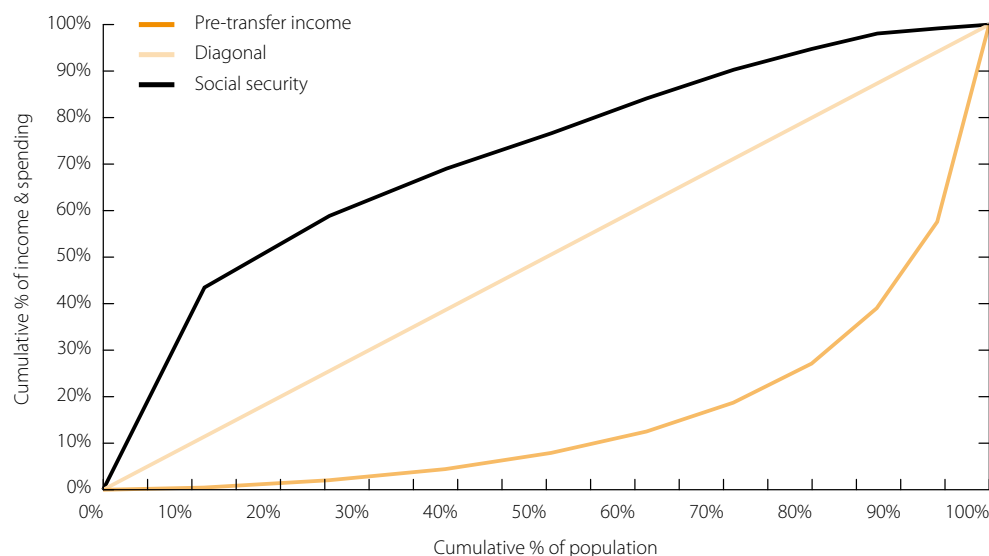
Two types of errors could arise in the process of targeting social grants. Errors of exclusion occur when poor people are excluded from benefits, while errors of inclusion occur when there is a leakage of funds meant for the poor to those who are not poor. Such errors have their origins in the functioning of targeting mechanisms. There are a number of alternative mechanisms for targeting grants or other subsidies to the poor:

- **Means testing** is generally used in South Africa for social grants.
- Categorical subsidies or transfers are also sometimes linked to *indicator targeting*. This is for instance the case with the free health care for pregnant woman and young children that was introduced at the time of the transition to democracy in South Africa. Though pregnant woman and young children are not all poor, the fact that these services are subsidised does mean that many poor people benefit from it, although there would be errors of exclusion and errors of inclusion involved in this.
- **Geographic targeting** targets certain areas because they house many of the poor. In South Africa the child support grant had an element of geographic targeting (the means test that applied until 2008 favoured rural areas and squatter areas), as does the housing subsidy (which favours urban areas).
- A fourth mechanism is *self targeting*. The Working-for-Water project, which pays low wages to people willing to work on certain projects, relies on this mechanism. Only the poor are usually willing to work at such low wages, with the result that it targets itself: only the poor are the beneficiaries.

Targeting can be costly in a number of senses. The costs of administering targeting can amount to as much as 3 to 8 percent of the value of the grants, for example, and tend to increase with attempts to improve the accuracy of targeting. Furthermore, targeting often carries moral hazard and other incentive costs: introducing targeting often

leads to changes in the behaviour of potential beneficiaries that are undesirable from society's viewpoint. Some people, for example, may stop working to claim an unemployment grant. A third cost of targeting is stigma. In many Anglo-Saxon countries, where means testing is common, some people do not want to be seen as "being on welfare"; hence, they refuse to apply for grants to which they are entitled. Only poor children can participate in certain school feeding programmes in South Africa, and some poor children refuse to do so because of the associated stigma. In such cases, it may be better to consider making the grant available to everybody, despite the higher costs (i.e. committing an error of inclusion), rather than to exclude some poor children through the stigma effect (an error of exclusion). Finally, targeting also involves political economy costs. For instance, the political support for a grant targeted only at very poor people may be less than that of a grant reaching a larger group, as is the case with the South African old age pension.

Figure 6: Lorenze curve and concentration curve for social grants (1997)



Analysis based on concentration curves suggest that South Africa's social assistance grants are well targeted. The derivation of a concentration curve is similar to that of a Lorenz curve in that one first arranges the population from poorest to richest, after which the curve is plotted. In the case of the Lorenz curve, cumulative income is shown on the Y-axis and the cumulative population share on the X-axis. The further the Lorenz curve bends from the diagonal, the greater the extent of inequality. In the case of the concentration curve, the cumulative benefit, subsidy or grant is shown on the Y-axis and the cumulative percentage of the population on the X-axis. If the concentration curve lies above the Lorenz curve, such spending is at least weakly redistributive. When the concentration curve also lies above the diagonal, the spending programme is strongly redistributive or equity enhancing. In this case, the concentration curve shows targeting towards the poor, i.e. redistribution in per capita terms. Figure 5 shows a Lorenz curve and a concentration curve for social grants in 1997. Whereas the Lorenz curve lies below the diagonal in the usual fashion, the concentration curve lies well above it. Whilst it is not possible for the bottom 40 percent of the population, for instance, to earn more than 40 percent of the income, it is indeed possible for them to receive more than 40 percent of the spending on social grants. In 1997, for example, the bottom 40 percent of the population received approximately 70 percent of the spending on social grants.

Figure 7 indicates that government spending on grants is markedly better targeted at the poor than are other forms of social spending. The concentration curve for social grants in 2000 lies well above those for other social programmes; hence, the degree to which the poor's actual share of spending on such grants exceeds their proportional share is greater than for other social expenditure programmes. This is confirmed by Table 24, which shows concentration indices for social spending programmes for both 1995 and 2000. A concentration index is calculated much like a Gini index, but its value is negative when the concentration curve rises above the diagonal. As can be seen in the table, the concentration indices for social grants in both 1995 and 2000 were negative, and considerably lower than those for other social expenditure items.

Figure 7: Concentration curves for social spending programmes (2000)

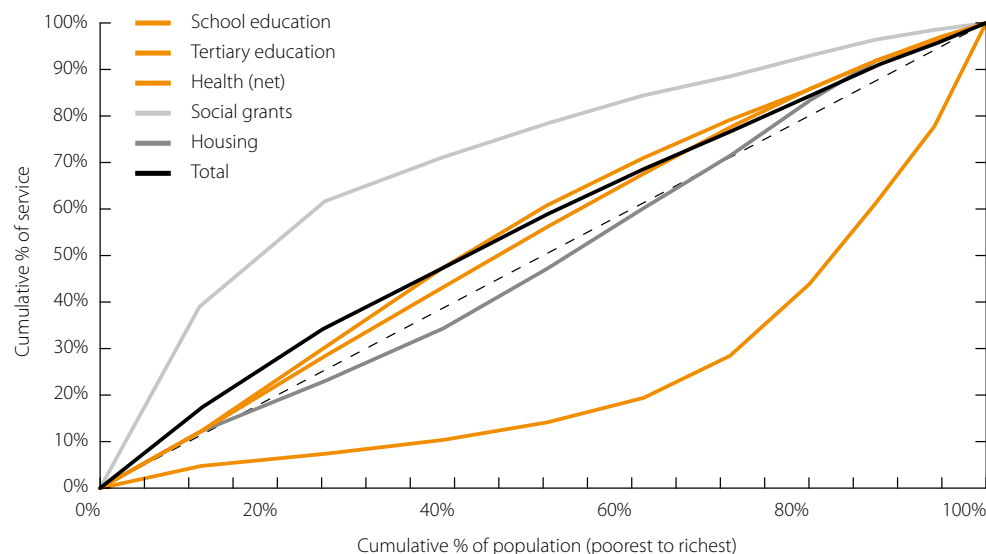
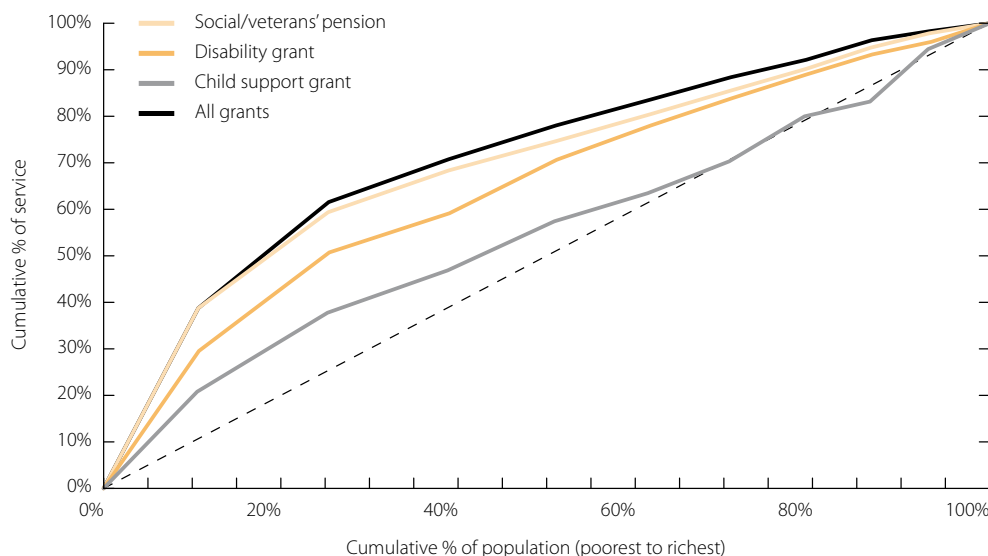


Table 24: Concentration indices for social programmes (1995 and 2000)

Programme	Concentration indices		
	1995	2000	Change
School education	-0.016	-0.104	-0.088
Tertiary education	0.484	0.497	0.013
Health: hospitals	-0.014	-0.057	-0.043
Health: clinics	-0.103	-0.132	-0.029
Social grants	-0.434	-0.431	0.003
Housing	-0.018	0.007	0.025
Total	-0.057	-0.120	-0.063

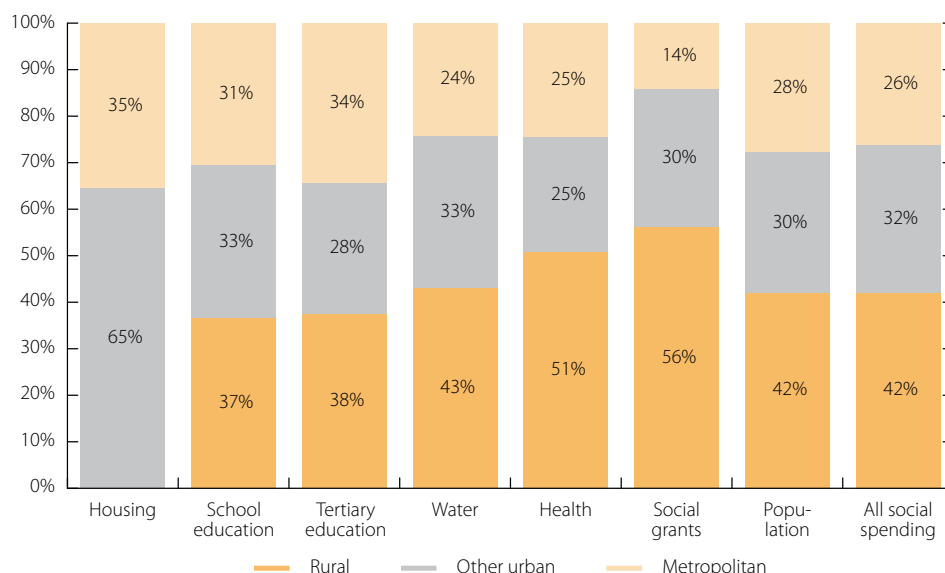
The various social grants are not targeted equally well. Figure 8 shows that social old-age pensions were targeted best in 2000, followed by disability grants. Child support grants and maintenance grants were targeted less well. The child support grant programme was not yet fully rolled out in 2000, however, and therefore may not have reached poorer and especially rural areas as well as it should have. The situation may well have improved markedly since then.

Figure 8: Concentration indices for various social grants (2000)



3

Figure 9: Geographical distribution of social spending and the population (1997)



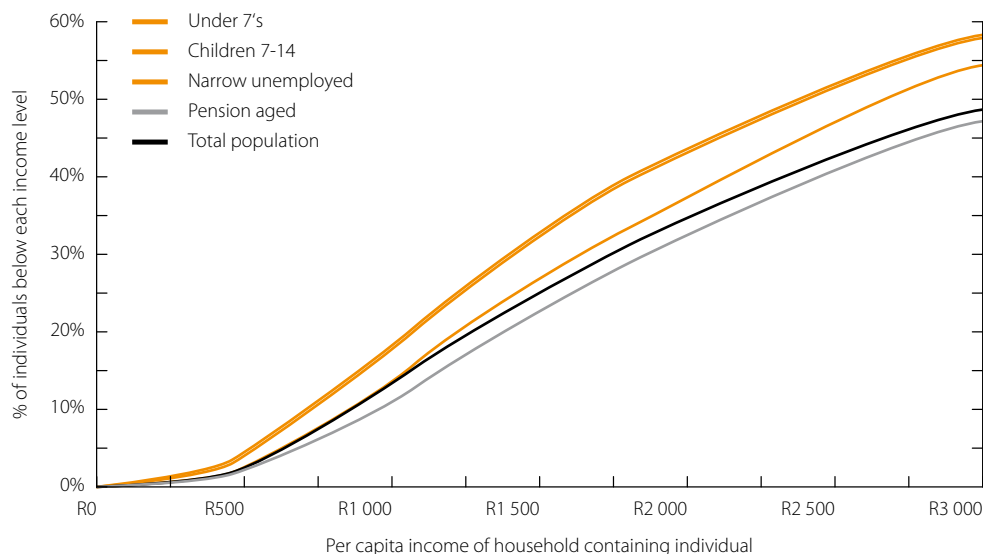
It transpires from Figure 9 that grants programmes also are more effective than other social spending programmes at reaching the rural poor. In 2000, for example, rural dwellers comprised only 42 percent of the South African population, but received fully 56 percent of the social grants disbursed.

Figure 10 contains cumulative density or cumulative distribution curves for five groups. The income per capita of individuals was derived by allocating to them average income per capita of the household in which they resided. The curves show that poverty was less prevalent amongst the elderly than amongst the population as a whole: a smaller proportion of the pension-aged fell under any poverty line one could draw that was the case for the overall population. Put differently, there was so-called stochastic poverty dominance – irrespective of the poverty line chosen, the pension age exhibited less poverty than the population as a whole. This was undoubtedly the result of the wide reach of the old-age pension, which made it an important source of income even in relatively poor rural areas.

In contrast, in 1995, when this Figure was derived, the children in the age groups 0 to 6 and 7 to 14 experienced greater poverty than the population as a whole, and even than the narrowly unemployed. However, it is impossible to distinguish between children 0 to 7 and children 7 to 14 in terms of this graph, so it is clear that the nature and

extent of poverty in these two groups did not really differ. Therefore, it made sense that the child support grant was later extended from the younger age group to the older group of children as well, which considerably reduced poverty. It is noticeable also that the narrowly unemployed, although poorer than the population as a whole, were not as badly off as children, who more often found themselves in poorer households than was the case for those narrowly unemployed. (This, however, was before the introduction of the CSG.)

Figure 10: Cumulative density functions for certain groups (1995)



Means testing is essential for ensuring that funds target the poor rather than the less poor part of the population. Means testing has always been a part of the South African social grant system (see Van der Berg, 2001), and the major social grants are linked to explicit means tests. This subsection outlines the current means tests for the various social grants in South Africa, while Section 3 discusses their incentive effects.

In his Budget Vote Speech delivered on 30 May 2008, Minister of Social Development Zola Skweyiya (2008) announced new social assistance regulations that included changes to the various means tests. The new means tests are as follows:

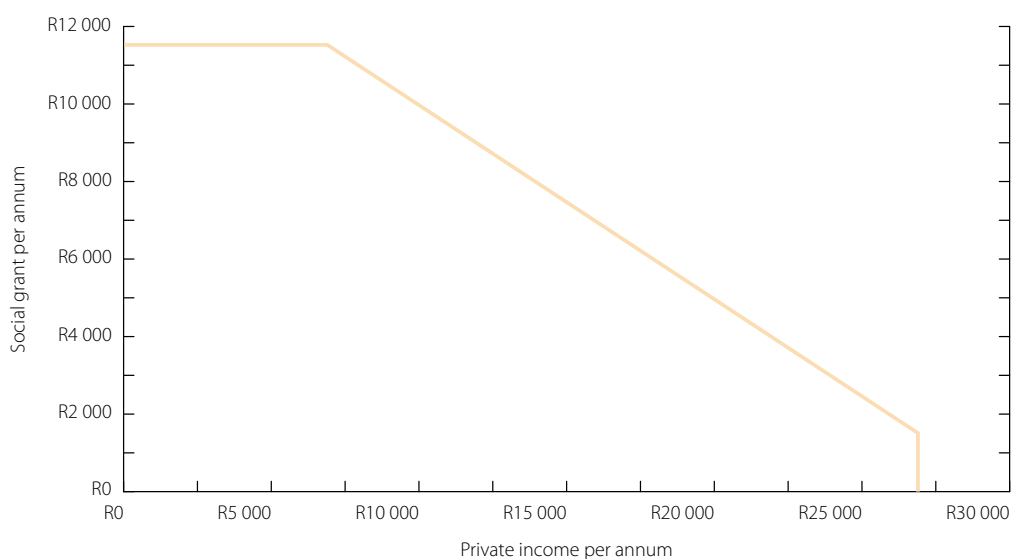
- Over time, failure to adjust the exclusion thresholds announced when the **child support grant** was introduced in April 1998 (household income levels of R800 per month for children living in formal urban dwellings and R1 100 for those living in rural areas and informal urban dwellings) prevented growing numbers of children from accessing assistance. The revised test has a significantly higher exclusion threshold and no longer differentiates between urban and rural areas. The new formula for determining the income threshold for the child support grant is $A = B * 10$, where A is the income threshold and B the monthly value of the grant. Following the increase in the value of the grant to R230 per month, the income threshold now amounts to R2 300 per month (previously R1 900 per month).
- The new means test for **care dependency grants** is similar to that for child support grants: $A = B * 10$, where A is the income threshold and B the monthly value of the grant. The monthly grant amounts to R940, which implies an income threshold of R9 400 per month (previously R4 000 per month).
- The means test formula for the **social old-age pension** is: $D = 1.3A - 0.5B$, where D is the monthly pension payable, A the maximum monthly pension payable, and B the monthly private income of the beneficiary. Of course, this is subject to the constraint that the maximum grant cannot exceed the set maximum, which now amounts to R940 per month (R11 280 per annum). An additional provision states that the cost of administering grants smaller than R100 per month is regarded as excessive; hence, no such grants are payable. The maximum grant of R11 280 per annum therefore is paid to elderly people with private incomes of R6 768 per annum or less (see Figure 11). A clawback (or effective marginal tax rate) of 50 percent operates for incomes from R6 768 to the exclusion level of income of R26 400 per annum. Yet another proviso states that no grant is paid to individuals whose assets exceed R450 000 (i.e. 40 times the maximum benefit).

- The same means test formula applies to the **disability grant**: $D = 1.3A - 0.5B$, where D is the monthly disability grant, A the maximum monthly disability grant, and B the monthly private income of the beneficiary. The grant may not exceed the set maximum, which now amounts to R940 per month (R11 280 per annum). Additional provisions state that grants amounting to less than R100 per month are not payable, and that no grant is paid to individuals whose assets exceed R450 000 (i.e. 40 times the maximum benefit).

Being subject to the same means test implies that the disability grant gives rise to a poverty trap similar to that affecting the social old-age pension. Indeed, there is little incentive for a disabled person to take up work. The problem is compounded by the reality that the work offered to the disabled tends to be temporary and low-paid (Lund, 1998: 12), which makes the income differential between the wage and the disability grant rather small.

The means test sometimes penalise lower-income workers with inadequate occupational pensions to such an extent that their retirement incomes (i.e. the sum of the occupational pension and the social pension) are only slightly higher than those of others who have contributed for much shorter periods. In this sense, the means-tested nature of the social old-age pension reduces the incentive for low-income earners to join a retirement fund.

Figure 11: The operation of the means test for the old-age pension (2008)



The first question one should ask when discussing means testing is whether it serves as a means of inclusion or a means of exclusion. If the means test is set at a high level, such as case with the social old age pension, it is largely used to exclude a small segment of the population with a fairly high income from benefiting. In South Africa's case, approximately 80 percent of the eligible age group receive social old age pensions. In contrast, if means testing is to be used to focus only on the bottom part of the population, i.e. to target a relatively small group of very poor people, it could be much more difficult to apply, because at such low income levels the poor cannot always be clearly distinguished from the less poor. This is linked to how incomes are usually distributed, i.e., they tend to follow a log-normal distribution, meaning that there is a lot of bunching of incomes around low income levels. It is therefore very difficult to draw a poverty line that runs through the middle of this bunching of incomes and to separate those who are very poor from those who are slightly less poor, as has been attempted with the child support grant. For this reason the means test for the child support grant is quite difficult to apply and there are probably many errors of inclusion as well as errors of exclusion, plus a large degree of discretion in application of this grant, which makes the means test problematic. However, because of the relatively small magnitude of the grant compared to the old age pension and disability grant, a more complex means test is also not desirable.

The working of the means test should be considered in the context of the income distribution. It is crucial where the centre of the log-normal distribution lies. Until recently, it was probably below the threshold value of where the sliding scale started to operate, as very few black people had retired with private retirement income. This is changing, however, as changes in the 1970's had brought more black people into the social insurance net, so that many of them are now entering retirement with some level of private pension. That means that more and more people are retiring with private incomes in the range where the sliding scale is supposed to be operating, making

application of the means more difficult and accurate information as to people's actual private incomes essential. For this reason there is a strong case to be made to extend the social pension to include also the top 20 percent of the retired population and to take back some of this income through the tax system. This means in practice that the social old age pension then becomes a universal pension. Because South Africa is so close to that situation, and because of the increase in administration costs associated with trying to deal with a differentiated pension for different people along the sliding scale, it may be useful to again consider this. The Smith Committee, the Mouton Committee and the National Consultative Retirement Forum all considered the option of eliminating the means test for the old age pension, but all came to the conclusion that it was best to retain it, as the number of pensioners was growing more rapidly than the economy was, and consequently there would have been strong pressure on the fiscus as a result of the expansion of the number of beneficiaries. However, the growth rate of the economy has improved and consequently it may again be worth considering the abolition of the means test for old age pensioners in the present conditions.

Social pensions act as a major source of income, particularly for the rural poor, but such pensions also affect household formation. A number of studies have shown that old people tend to be an important source of household formation in South Africa (Klasen and Woolard, 2009; Bertrand, Miller and Mullainathan, 2003; Case and Deaton 1998; Case, Fin and McLanahan, 1999; Duflo 2003). Households in South Africa often form around income, when many adults do not have access to own sources of income. Therefore unemployed adult children or other relatives of pensioners often remain in or even join such pensioner households as a survival strategy. This has an impact on choice of residence (urban or rural location), labour market participation, and may retard the growth of the urban informal sector. On the other hand, it brings a significant source of security for the unemployed, who benefit from being attached to such pensioner households. The poorest households are those with neither social grants nor employment.

3.3. The Constitutional framework

Section 27(1)(c) of the Constitution of the Republic of South Africa (No. 108 of 1996) stipulates that everyone has the right to have access to social security, including appropriate social assistance for those unable to support themselves. As is the case with various other social rights conferred by the Bill of Rights (Chapter 2 of the Constitution), it is stated further that the state should take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right. Hence, the South African Constitution is transformative in nature: "... it does not simply place limits on the exercise of collective power... but requires collective power to be used to advance ideals of freedom, equality, dignity and social justice" (Brand, 2005: 1).

For the governments of middle-income countries such as South Africa, giving effect to such constitutional social rights represents a major challenge. The post-apartheid Government has managed to maintain fiscal discipline while significantly expanding the coverage and poverty-alleviating impact of the social assistance system. Whether or not enough has been done to satisfy the constitutional imperative obviously is difficult to establish, however, and some human-rights advocates have argued that a more aggressive approach was required in view of the extent and persistence of poverty in South Africa (e.g. South African Human Rights Commission, 2006: 65-66).

The Constitutional Court has approached its role as the custodian of the constitutional socio-economic rights with circumspection, and has been reluctant to impose additional policy burdens on the executive (Davis, 2006: 304). On the whole, the Court has rejected the notion that the South African Government has a minimum core obligation to the people of the country as far as the realisation of socio-economic rights is concerned; instead, its jurisprudence has reflected a reasonableness approach that emphasises "... rationality (non-arbitrariness); a demand for reasons backed up by evidence (justification); and proportionality between means and ends, between advantages and disadvantages" (Pillay, 2007: 4).¹¹

The Constitutional Court nonetheless has not shied away from making judgments with significant budgetary implications.¹² This was affirmed in a case heard on 13 and 30 May 2003 and decided on 4 March 2004 — *Khosa and others versus Minister of Social Development* 2004 (6) SA 505 (CC) — that dealt with sections of the Social Assistance Act (No 59 of 1992) which disqualified persons who were not South African citizens from receiving social assistance grants. The Court ruled that the citizenship requirement infringed the Constitutional right to equality of citizens of

¹¹ The notion of a minimum core obligation was introduced by the United Nations' Committee on Economic, Social and Cultural Rights in its General Comment 3 (released in 1990).

¹² In the judgment in the case *Minister of Health versus Treatment Action Campaign* 2002 (5) SA 721 (CC), the Court distinguished between scrutiny of budgetary issues directed at "rearranging budgets" and scrutiny of budgetary issues with "budgetary implications", indicating that the first type is not its domain.

other countries living in South Africa as permanent residents, and that permanent residents were bearers of the right to social security that the Constitution vested in “everyone”. Accordingly, the Social Assistance Act (Act 13 of 2004) expanded the eligibility for social assistance to include South African citizens and persons resident in the Republic.

3.4. Social security administration

The social security funds (the Compensation Fund, the Road Accident Fund and the Unemployment Insurance Fund) are Section 3A public entities, that is, extensions of government departments with mandates to fulfil specific economic or social responsibilities of government. Legislation governs the management, operations and reporting obligations of these funds. The Commissioners of the Compensation Fund and the Unemployment Insurance Fund report to the Minister of Labour, while the Chief Executive of the Road Accident Fund reports to the Minister of Transport.

Schedule 4 of the Constitution of the Republic of South Africa (No. 108 of 1996) lists welfare services as a functional area of concurrent national and provincial legislative competence. The White Paper for Social Welfare (Department of Welfare, 1997) proposed the following division of labour:

National government is responsible for developing generic norms and standards for providing services, and for ensuring that uniformity in the performance of particular functions is maintained. Provinces are responsible, concurrently with the national department, for planning, development and providing services. However, where mutual co-operation between national and provincial departments is essential, powers are allocated concurrently.

In practice, this boiled down to a separation between the administrative and delivery aspects of the social assistance system: overall responsibility for policy and administration vested in the national Department of Social Development, while provincial departments managed the payment of social grants. In 2004, administration and the disbursement of social grants were unified when the South African Social Security Agency Act (Act 9 of 2004) established the South African Social Security Agency (SASSA). Its mandate is regulated by the Social Assistance Act (Act 13 of 2004). Following the transfer of the social assistance administration and payment service functions to SASSA in 2006 and 2007, the national Department of Social Development now focuses on the development and reviewing of social policy and monitoring of service delivery. The delivery of social welfare services is now the main activity of the provincial departments of social development.

SASSA was created to promote efficiency and improve service delivery in the social assistance system, mainly by improving coordination and raising administrative standards. It is envisaged, for example, that consolidation and standardisation of contracts with grant payment contractors (which account for 76 per cent of total payments to beneficiaries) would reduce the administrative costs of providing social grants (National Treasury, 2008: 330). SASSA also has made a concerted effort to combat fraud by cleaning up its records of the recipients. Among other initiatives, regular audits of the social pension system (SOCPEN) were introduced in conjunction with the Department of Social Development and the Special Investigations Unit. In 2008 it was reported that these audits have yielded the following results (National Treasury, 2008: 329):

- 21 588 government employees who were on the system illegally were removed and subjected to disciplinary actions.
- Apart from these government employees, the removal from the system of an additional 143 485 people had been recommended as well.
- The annual value of the 165 073 grants that have been suspended totalled R424 million.
- 6 693 people had been arrested and taken to court, where a conviction rate of more than 80 percent was achieved.
- Acknowledgements of debts amounting R77.5 million had been signed, and R16.6 million had been recovered from un-entitled beneficiaries.
- The payment of grants to 123 610 beneficiaries had been cancelled because of non-collection or direct requests from beneficiaries.

The Social Assistance Act (Act 13 of 2004) established an independent Inspectorate for Social Assistance, funded by money appropriated by Parliament, to combat abuse of the social assistance system and to audit compliance by SASSA with regulatory and policy measures and instruments.

The budgeting framework

Prior to the establishment of SASSA, funds allocated for the payment of social grants formed part of the provincial equitable share, which is a direct charge on the National Revenue Fund. Accordingly, the formula for the division of the provincial equitable share allocation among the provinces contained a welfare component — based on the estimated numbers of people entitled to grants weighted by means of a poverty index derived from the Income and Expenditure Survey — with a weight of 18. In terms of the present budget framework, social assistance transfers are shown in the Comprehensive Social Security Framework programme on the budget of the Department of Social Development, from where it is transferred to SASSA for disbursement. The provincial equitable share formula was amended accordingly by scrapping the welfare component and re-weighting the other components.

Two broader sets of reforms during the recent past have also affected the budgetary framework governing the social assistance system. In November 1997 South Africa entered a new phase of fiscal planning with the publication of the first Medium Term Budget Policy Statement. Subsequent budgets have been presented in the context of a medium-term policy frameworks consisting of three-year rolling expenditure and revenue projections for the national and provincial governments compiled against the backdrop of economic and fiscal goals and prospects for the economy. The promulgation of the Public Finance Management Act (PFMA) of 1999 was a major step to increase the transparency and accountability of fiscal policymaking in South Africa. The Act emphasises regular financial reporting, sound internal expenditure controls, independent audit and supervision of control systems, improved accounting standards and training of financial managers, and greater emphasis on outputs and performance monitoring. Furthermore, it compels the South African fiscal authorities to disclose their longer-term objectives and views about future trends in fiscal policy annually, along the lines of the existing medium-term budgeting framework.

3.5. International perspectives on social grants

3.5.1 OECD Countries

Social insurance programmes absorb about 85 percent of total social security expenditure in OECD countries and social assistance schemes the remaining 15 percent (World Bank, 2006: 1).¹³ The overall coverage of social assistance schemes remains low despite significant increases in the number of recipients of grants since 1980: in 1999, only 3 percent of the working-age populations of continental European countries and 9 percent of that of the United Kingdom received targeted social assistance benefits (De Neubourg et al, 2007: 17-18).¹⁴ Social assistance schemes therefore play a residual role in the social security systems of most industrialised countries and their impact on poverty and inequality tends to be marginal. Such schemes nonetheless are very effective at, as De Neubourg et al (2007: 13) put it, “weaving the safety net tightly” for those needy people who receive inadequate or no benefits from contributory programmes and other forms of social protection (cf. also International Labour Organisation, 2000: 179). In a number of these countries, social assistance programmes function as income guarantee schemes that complement contributory schemes by providing tax-financed minimum incomes on a means-tested basis. Other common types of social transfers in OECD countries include cash and in-kind housing benefits, universal or means-tested family benefits, cash benefits for lone parents, employment-conditional benefits for able-bodied individuals, and childcare benefits (World Bank, 2006: 3).

In recent decades, a number of trends in OECD countries have caused concern about the long-term financial viability of social protection systems, including rising long-term unemployment, globalisation-induced pressure on tax bases and tax rates, population ageing and changes in family structures such as growing numbers of one-parent families (World Bank, 2006: 5). Along with mounting unwillingness among taxpayers to pay for social protection caused in

¹³ These averages mask considerable variation. Anglo-Saxon countries generally devote larger chunks of their social security outlays to social assistance schemes and correspondingly smaller portions to social insurance programmes than the countries of continental Europe (International Labour Organisation, 2000: 181; World Bank, 2006: 2).

¹⁴ The International Labour Organisation (2000: 180) ascribed this increase in the number of social-assistance beneficiaries to growing unemployment, changes in employment patterns that have prevented growing numbers of workers from accumulating adequate entitlements for full income protection, the proliferation of single-parent families, and reductions in the levels of social insurance benefits.

part by perceptions of growing welfare dependence among the recipients of grants (cf. De Neubourg et al, 2007: 30), these trends have stimulated widespread reform of social assistance and other components of social security systems. The remainder of this subsection discusses the nature of these reforms in broad terms and provides a more detailed review of one of its most prominent examples, namely workfare programmes.

Debates about the reform of social assistance schemes in OECD countries have revolved around links between the nature of such schemes, work incentives, and social exclusion.¹⁵ To discourage dependence on social grants, many OECD countries have reduced the amounts and duration of benefits and tightened requirements that beneficiaries should seek work actively (World Bank, 2006: 7). Such reforms often have been accompanied by the following measures to encourage working and social inclusion: terminating the practice of cancelling benefits when recipients obtain part-time work, changing the delivery of benefits from the household to individuals so that individuals do not jeopardise the household's access to benefits when they find jobs, providing benefits conditional on finding employment (e.g. cash bonuses, wage supplements and tax credits), and offering more assistance to job seekers (labour-market information, training programmes, etc) (World Bank, 2006: 7). This has been described as a shift from protective to productive modes of providing social assistance (and social protection more generally) (Hudson and Kühner, 2009).¹⁶

The United States pioneered modern welfare reforms aimed at integrating recipients of social benefits into the formal labour market. The approach, that has become known as workfare¹⁷, can be traced back to experimental programmes introduced by the Reagan Administration in 1981, but reached maturity under the Clinton Administration with the implementation of the Personal Responsibility and Work Opportunity Act (PRWORA) of 1996 and other welfare reforms. Ochel (2005: 78) defined workfare as “programmes or schemes that require people to work in return for social assistance benefits” and stressed three aspects of this definition:

- Participation in workfare programmes is compulsory for unemployed people deemed physically and mentally able to work and non-compliance with programme requirements could jeopardise recipients' benefits.
- The primary focus of workfare programmes is work; training and other mechanisms to achieve reintegration into the labour market are of secondary importance.
- Workfare programmes are linked with policies tied to the lowest tier of public income support.

The major elements of US workfare programmes are as follows (cf. Blank, 2004: 4-8). First, PRWORA abolished the matching-grant Aid to Families with Dependent Children (AFDC) programme and replaced it with Temporary Assistance to Needy Families (TANF), provided to states as a block grant. The introduction of TANF allowed the states much more discretion over programme design than AFDC, and the block-grant basis raised the importance of careful design by transferring the full financial risk of cycles in assistance needs to states. The PRWORA legislation also made access to federal funds conditional on states placing larger numbers of their active welfare recipients in jobs, limited TANF-funded assistance to 60 months over the full lifetimes of individuals, and limited access to income assistance programmes among targeted groups (e.g. immigrants and certain categories of disabled persons). The states responded to the PRWORA legislation by:

- markedly expanding their welfare-to-work programmes
- reducing the earnings disregard (i.e. the rate at which cash benefits decrease as earnings increase) to encourage working
- enforcing benefit losses on assistance recipients who did not participate in work programmes
- enforcing the Federal 60-month limit on eligibility for TANF-funded assistance and, in some cases, setting and implementing even tighter limits

Other policy changes strengthened state-level efforts to get welfare recipients in jobs. These included the expansion of in-kind assistance to needy families by means of child-care subsidies, food stamps and Medicaid services, as well

¹⁵ Social exclusion is defined as “... a multi-dimensional socio-economic conception of deprivation” that often involves “... the development of an ‘underclass’ mentality, with little emphasis on the personal responsibility to find work” (World Bank, 2006: 7).

¹⁶ There is some debate about the actual extent of this shift in focus. Hudson and Kühner (2009), for example, compared the welfare states of 23 OECD countries in 1994, 1998 and 2003 and found that a shift towards the productive model of social protection occurred in some but by no means all of them.

¹⁷ According to Kildal (2001: 3), the term “workfare” is derived from “work-for-your-welfare” or “welfare-for-work”.

minimum wage increases and expanded refundable tax credits under the Earned Income Tax Credit (EITC) system (Blank, 2004: 9-12).

In a careful review of the empirical evidence, Blank (2004: 14-18) highlighted three major results of this gamut of changes:

- Welfare caseloads dropped by 42 percent from 1994 to 2001, and did not rebound significantly during the 2000-2001 recession.
- Employment increased sharply during the late-1990s, especially among less-skilled single mothers. Data from 2002 showed that the majority of the women who had left welfare in the 1990s remained employed, although a significant minority were jobless.
- The incomes of single mothers (the group affected most heavily by the changes) rose during the second half of the 1990s, despite the fact that many of them lost cash benefits as a result of the introduction of workfare.

These developments suggest that workfare programmes have succeeded in their primary aims of reducing welfare caseloads and moving welfare recipients into jobs. Blank (2004: 37-40), however, added that it is particularly difficult to separate the effects of such programmes from concurrent labour-market developments such as the rapid growth in job opportunities and earnings in the US during the second half of the 1990s; furthermore, it is too soon to ascertain some of the longer-term effects of the welfare reforms on the livelihoods and social choices of needy families.

Welfare reforms with workfare elements were also implemented in the United Kingdom by the Labour Government of Tony Blair, as well as in the Scandinavian countries. The UK reforms, known as the New Deal, offer assistance to four groups of welfare recipients: young unemployed persons aged 18 to 24, long-term unemployed aged 25 and above, lone parents and disabled people (cf. Kildal, 2001: 4; Ochel, 2006: 80-81). Younger unemployed persons first enter a period of intensive job-search (the "Gateway"), after which they have to choose among four six-month options, namely subsidised employment, full-time education and training, voluntary service, and the Environmental Task Force (Ochel, 2006: 80). This is followed by another period of intensive job search (known as the "follow-through"). Unemployed persons aged 25 and above who have received the Jobseeker's Allowance continuously for 12 to 18 months undergo a 13-week Gateway period, followed by an Intensive Activity Period that lasts another 13 weeks and provides subsidised employment or education and training opportunities (Ochel, 2006: 81). Several studies reviewed by Ochel (2006: 80-81) found that the New Deal programmes successfully promoted the employment of younger and long-term unemployed people.

The Scandinavian countries have long combined a commitment to the maintenance of full employment (pursued by means of active labour-market policies, inter alia) with the belief that generous social benefits for the unemployed are basic social rights regardless of achievements and financial means (cf. Kildal, 2001: 5-6). During the second half of the 1990s, however, the forces listed earlier led the governments of these countries to also introduce workfare-like welfare reforms, with Denmark leading the way. Prior to a series of labour-market reforms introduced from 1993 until 1998, the jobless in Denmark could indefinitely access unemployment benefits, provided that they participated in work programmes for six months during each three-year benefit cycle (Kildal, 2001: 7-9). The first wave of reforms abolished the right to earn new benefits through participating in work programmes by limiting the period of entitlement to seven years, of which the last three years involved compulsory "activation initiatives" aimed at reintegration into the labour market. The limits subsequently were tightened and by 1998 the maximum unemployment period was four years, including three years of activation activities. In 1996, these steps were complemented by special measures for low-skilled individuals under 25 years of age, who after six months of unemployment were compelled to enter education or work training programmes and accept sharply reduced benefits. Ochel (2006: 81) reported positive employment effects for these Danish workfare programmes, but Kildal (2001) was more circumspect and expressed concern about the implications of such programmes for norms of fairness and justice that have long underpinned the Scandinavian welfare regimes.

The available evidence therefore indicates that workfare programmes can be effective mechanisms for returning welfare recipients to work, especially in rapidly growing economies where sufficient numbers of jobs are created to absorb programme participants in the regular labour market. The importance of the availability of jobs is magnified by the reality that workfare programmes affect the low-skilled labour market by assisting unemployed people in getting regular public or private sector employment. In contrast to public works programmes, which provide government-created temporary jobs, workfare therefore causes competition between social security recipients and regular workers for low skilled work in the formal labour market (e.g. sweeping streets, cleaning parks, and basic

clerical tasks). In some cities in the US, such as Baltimore, regular low-skilled workers were displaced by workfare workers, who were not unionised and were paid less than the minimum wage (Samson, Rosenblum, Haarmann, Haarmann, MacQuene and Van Niekerk, 2001: 4). The perverse result was that people who were in regular paying work ended up on welfare because their jobs were taken by workfare participants. Hence, inadequate availability of jobs may well be the most serious barrier to the successful implementation of workfares programmes. Furthermore, the US experience showed that workfare programmes can be time-consuming and financially expensive: the costs to be taken into consideration are the work-related and child care expenses of recipients as well as supervisory and administrative costs (Samson et al, 2001: 12). In discussing the Scandinavian experience, Kildal (2001: 14) also warned that workfare-type programmes could easily lead to two-tiered labour markets in which poor labourers are compelled to work on “second-rate terms”, lacking labour rights and sickness, vacation and unemployment benefits.

3.5.2 Developing Countries

The colonial authorities introduced rudimentary social security systems in most African, Asian and Latin American countries. Such systems offered health care, maternity leave, disability allowances and pensions for small sections of the population – mainly civil servants and employees of large enterprises – but bypassed the numerically dominant poor (especially those living in rural areas) (Townsend, 2007: 32). After obtaining independence, a considerable number of developing countries introduced or expanded social assistance programmes to assist households not covered by social insurance schemes. Such schemes usually were afforded a relatively low priority compared to social services such as education and health care, however, and funding was restricted further by limited tax resources. To this day, the benefits provided by most developing countries have remained modest. Furthermore, in most countries coverage have remained low and restricted to the victims of particular contingencies (e.g. widows, orphans and elderly people without income and family support). International Labour Organisation data reported by Townsend (2007: 179-180, 181) suggest that approximately 90 percent of the inhabitants of South Asia and Sub-Saharan Africa and 20 to 60 percent of the populations of middle-income countries lack any form of statutory social protection. The bleak picture extends to the formerly socialist countries of Central and Eastern Europe. Prior to 1989, these socialist countries did not provide unemployment insurance, and devoted limited resources to social assistance schemes. Even by the turn of the century, the share of social security expenditure they devoted to social assistance and unemployment benefits remained marginal (ILO, 2000: 56).

Several developing countries apart from South Africa maintain substantial social assistance systems, including Brazil, Mexico, Botswana, Namibia and India (cf. Townsend, 2007: 32-34). Possibly the most thoroughly studied reform initiative in recent years has been the introduction of conditional cash transfers (CCTs) in several Latin American and Central American countries. The remainder of this section provides a brief review of the Latin American experience with CCTs.

Latin America's inequality and poverty problems were exacerbated by the debt crisis of 1980 and the contagion effects of the Mexican and Asian crises of 1995 and 1997-98, which reversed the economic recovery of the early 1990s. Amidst this turbulent economic environment within which social spending levels often came under severe pressure, Latin American countries started to introduce Conditional Cash Transfers (CCTs) to overcome the most common shortcomings of traditional social assistance programmes, including poor targeting of the needy, high administrative costs, fragmentation of projects and programmes, accusations of paternalism and clientelism, and an overemphasis on short-term relief of poverty with inadequate attention to longer-term poverty of a structural nature (Rawlings and Rubio, 2005: 30, 33). Britto (2005: 2-3) summarises the essence of CCTs as follows: “The operation of conditional cash transfers (CCTs) consists in the provision of money subsidies to targeted households, provided they assure school attendance of their school-aged children and, in some cases, make periodic visits to health centers and attend other health-related activities.” Hence, CCTs combat current poverty (by providing income support that enables consumption smoothing) as well as future poverty (by encouraging human capital accumulation among the young in an attempt to break the intergenerational poverty cycle) (Rawlings and Rubio, 2005: 33). According to Britto (2005: 3), other objectives of CCTs are to overcome the failure of universal social policies to reach the poor – especially in the areas of education and health – and the failure of existing systems to provide adequate social protection during times of crisis.

CCTs were initiated by Mexico to replace the highly regressive and urban biased general food subsidy scheme (Britto, 2005: 7-8), but soon spread to other countries in Latin America and the Caribbean. The Mexican scheme, Progresa, was introduced by President Ernesto Zedillo and consisted of cash and in-kind transfers to households whose children regularly attended school and whose members all visited health centres regularly. The education

component of Progresa targeted poor households with children in primary and secondary school, and provided educational grants and support for school materials. The programme also included supply-side benefits: teachers, for example, received bonuses for every pupil who was on the programme. The health component focuses on poor households with pregnant and lactating women, children under two years of age, and malnourished children between the ages of two and five; the benefits included cash grants for food consumption, basic health care services, nutrition and health education, and nutrition supplements (Rawlings and Rubio, 2005: Table 1). Furthermore, Progresa has a positive gender bias: benefits are disbursed to the female heads of participating households, and participating secondary-school girls receive higher cash grants than boys, because the former face higher risks of dropping out of school and their educational attainment brings positive externalities (Britto, 2005: 8). In 2002, Progresa was renamed Oportunidades and its scope was expanded to also include income generation for poor households by means of preferential access to microcredit, housing improvements, and adult education (Rawlings and Rubio, 2005: 32).

President Fernando Henrique Cardoso introduced the Bolsa Escola conditional cash transfer programme in Brazil in 2001. This programme granted monthly cash transfers to poor households with children aged six to fifteen enrolled in grades one to eight, provided that they maintain school attendance rates of 85 percent or higher (Britto, 2005: 10-11). Bolsa Escola benefits are also disbursed to female heads of households. The benefits provided by the national governments were significantly lower than those of Progresa, but richer states and municipalities were allowed to raise the transfers or expand coverage. The details of the targeting of beneficiaries were also left to municipalities (Britto, 2005: 11). In 2003, Bolsa Escola was unified with other federal CCTs, creating a programme known as Bolsa Família. Apart from better coordination with other social spending initiatives, Bolsa Família added health-related conditionalities to Bolsa Escola's education-related ones and markedly extended the coverage and size of transfers. It soon became Brazil's largest CCT in terms of coverage and financing (Britto, 2005: 12).

Very similar CCT programmes exist in a number of other Latin and Central American countries, including Colombia, Jamaica, Nicaragua and Honduras (cf. Rawlings and Rubio, 2005: 31-32). In Honduras, for example, pupils receive education vouchers and supply-side incentives encourage schools to participate. The health and nutrition grants are targeted to newborn babies until the age of 3 years or pregnant mothers in Honduras and Jamaica. Honduras also gives health and nutrition vouchers, nutrition training for mothers and provides health centres with incentives to participate.

CCT programmes use a variety of targeting mechanisms. Honduras uses the Height Census of First Grade School children to provide the data on the levels of malnutrition.¹⁸ In Mexico, the qualifying communities in rural areas are selected using a marginality index based on census data. Nicaragua compares the results of household level proxy means test to results from geographic targeting. Furthermore, in Jamaica, beneficiaries' eligibility is continuously reviewed. This happens every three years in Mexico as well. In Nicaragua the programme only lasts three years in a community and is then phased out within two years; hence, inhabitants know that it is only a temporary measure (Rawlings and Rubio, 2005: 38).

The evidence suggests that CCT programmes are effective mechanisms for alleviating poverty, and this is reflected in increases in budgets and the number of recipients. When the Mexican Progresa began it covered 300 000 people compared to more than 4 million people – or 20 percent of the population – in 2002 (Rawlings and Rubio, 2005: 38). The same trend is observed in Brazil, where the coverage of Bolsa Escola reached some 5 million people in 2002 (Britto, 2005: 7). Rawlings and Rubio (2005:48) reported that CCTs have had positive effects on school enrolment among boys and girls, child health and nutrition, and consumption levels. Brazil's 2000 census show that school attendance rates among poor children had increased by 4%, while that of Argentina rose by 9% for beneficiaries between the ages of six and 17 from 2005 till early 2007. This does not necessarily imply that child labour has declined, however, because school attendance can be combined with work (Britto, 2005: 13). Britto (2005: 25) also pointed out that the effectiveness of CCTs is influenced markedly by the environment within which they are implemented. In the Latin American context, for example, sustainable poverty reduction is likely to require appropriate macroeconomic policy, various redistributive policies and initiatives to enable the poor to accumulate more assets, in addition to CCT programmes.

¹⁸ Duflo (2003) used a similar methodology in a study to determine the nutritional status of South African children staying with an old age pension recipient.

3.6. Effects of social security in South Africa

3.6.1 Theory of the household

The household has been considered as both a consumption and production structure (Becker, 1991; Edmonds et al, 2004). The unitary model of household behaviour assumes that members of the household behave altruistically and that the household's utility is maximised when pooled resources are allocated equitably among its members (Becker, 1991). A household considers its production function and as a collective bargaining unit decides on whether it needs additional income, and if it would be able to afford to support the member who is looking for work (Black, 2004: 416). A household would take the decision to insure itself against risk by diversifying its sources of income and for consumption smoothing over time and for this it may require of a member of the household to migrate in search of work. This will highly depend on the search costs and additional income that may be gained from the job search (Black, 2004). However, the definition of households has implications on how the social grant's impact on poverty and the behavioural impact on labour supply.

The definition of household membership has significant bearings on research outcome when assessing how social security affects households. This is more so in South Africa's case where the conventional nuclear family is less common and there are many cases of three to four generations living in the same household (Dinkelman, 2004). The question of who is included as part of the household is important. As noted by Posel et al (2006), strict criteria are used to determine household membership when household surveys are conducted. There is the strict and

broad definition, both establishing whether membership is determined by physical presence in a household or by resource sharing which may include members who live in different places. The strict residency rule stipulates that a person must be a resident of the household for most of the year, to be counted as part of that household. The advantage of this rule is that it avoids double counting of individuals during census as well as reporting errors — where respondents are likely to remember details about people they see almost daily (Posel et al, 2006: 838). The broad rule accommodates members who are home for at least fifteen days in a year. This rule is a more realistic account of South Africa's complex household structures because it accommodates the fact that households are dynamic and driven by economic factors like employment. For migration workers to be included as part of a household is normal, it has its roots in the apartheid period, where black workers were considered migrant labourers. This pattern still persists in the present and is now driven by the availability of job opportunities (Posel et al 2006; Lund, 2006). To show the complexities of definition, Edmonds et al (2004) use the term 'households' to refer to co-resident individuals and "family" as the relatives of the household. It is unclear whether 'household' would exclude member of household working away from home. Posel et al (2006), who consider the household to include migrant labourers, found a positive impact of the pension on labour force participation, while Bertrand et al (2003) and Dinkelman (2004), who treated the household as exogenous and looked at labour response to the social grant, found different results.

Dinkelman (2004) observes that the households in South Africa have four main roles. They are firstly a private safety net for individuals without employment. Despite the fact that these individuals do not work, they are able to share in the resources of the household by attaching themselves to households that have a pension recipient (Klasen and Woolard, 2009). Secondly, households are the productive unit proposed by Becker (1991), where the household will influence the decision of a member to search for work or not. This has both adverse and positive effects. In the case of women, social grants have freed up women to look for work due to the availability of household helpers and by offering income support (Dinkelman, 2004). Thirdly, the household is a privileged source of information that furnishes a job searcher with information not available to the other searcher because of the link they have to the job market via members of the household. This networking would be an advantage during times of high unemployment when education has little impact on who gets hired. Fourthly and finally, the culture of the household has a bearing on whether an individual will decide to go look for work. This concept is difficult to measure because there may be other factors affecting a person's attitude towards employment which may not come from the household. Understanding household dynamics around social grants can inform policy about how best to deal with unintended consequences of the grants as well as how to use the grants to target poor households.

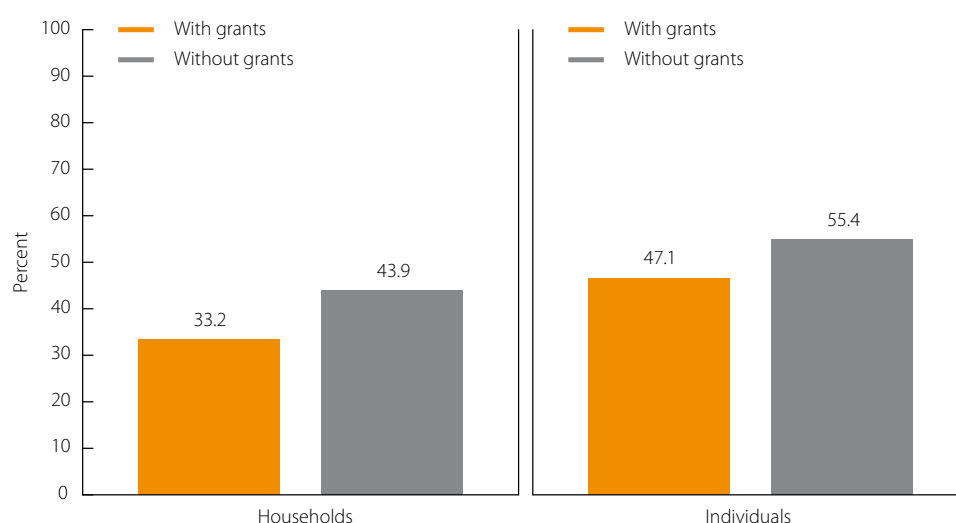
3.6.2 Social security and poverty

Recent research has confirmed that the various social grants are well targeted at the poor and that they have a significant mitigating impact on poverty (cf. Van der Berg, Yu and Louw, 2008). Fully 76 percent of government spending

on social grants accrues to the roughly 50 percent of the population that constitute the poorest two quintiles of households; moreover, grants raise the income share of the poorest 40 percent of households from 4.7 percent of pre-transfer income to 7.8 percent of post transfer income.

Figure 12 gives a rough indication of the effect of social grants on the extent of poverty in 2005 (see Armstrong, Lekezwa and Siebrits, 2008: 21-22). It compares the actual incidence of poverty among households and individuals at the time of Statistics South Africa's Income and Expenditure Survey 2005 to the incidence that would have obtained if all respondents had reported zero income from social grants. The actual and hypothetical poverty rates for households were 33.2 percent and 43.9 percent, respectively. Hence, if nothing else was different, the incidence of poverty among households would have been 32.2 percent higher in 2005 had the various types of social grants not existed. Similarly, social grants reduced the incidence of poverty among individuals from a hypothetical 55.4 percent to 47.1 percent (i.e. by 15 percent). These numbers are indicative only – they rest on the very strong assumption that the availability or otherwise of social grants has no impact whatsoever on the behaviour of households in terms of labour supply, household formation patterns, etc – but nonetheless suggest that social grants markedly reduce poverty by augmenting the income of poor households.

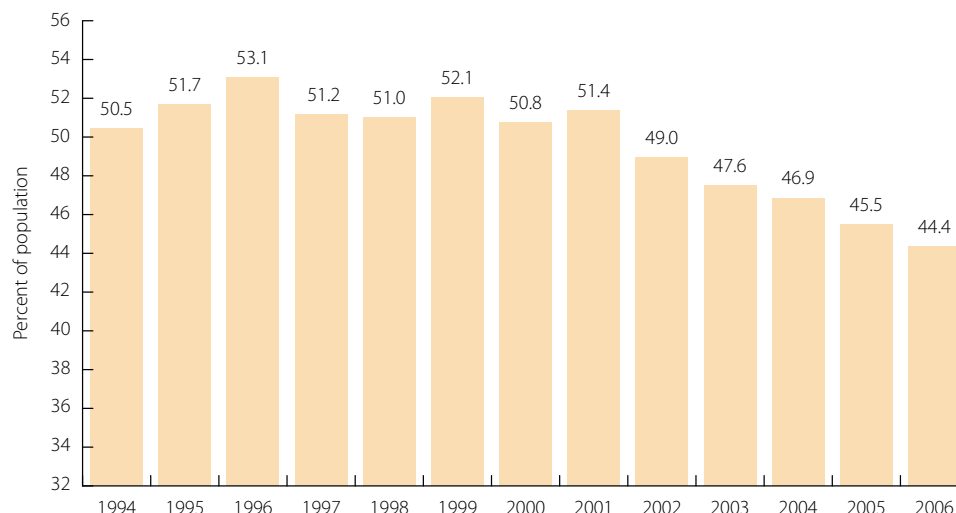
Figure 12: Poverty rates for households and individuals (2005)



Source: Calculated from data in Statistics South Africa (2008a)

Other evidence also suggests that the recent expansion of the South African social assistance system has markedly reduced the incidence of poverty. Figure 13, which depicts poverty headcount rates based on data from AMPS (the All Media and Products Survey), shows that poverty decreased by 7 percentage points from 2001 until 2006. Moreover, the portion of children whose parents reported that they had gone hungry in the previous year declined from 31 percent in 2002 to 23 percent in 2005.

Figure 13: Poverty headcount rates based on AMPS data (1994-2006)



Source: Van der Berg, Louw and du Toit (2007)

Note: Poverty line: R3 000 per capita per annum in 2000 Rand values

The social grant is an important type of income for poor households especially those in rural areas. It makes up to 50% of income in households headed by the elderly; preventing these households from falling into poverty traps (Leibbrandt et al, 2004: 13). The social grant is well targeted in South Africa because it reaches most of the poor. The various grants cover children, the aged, both physical and mental disability and care dependency. The old age pension is received by more than 80% of the aged and mostly black women (Case and Deaton, 1998; Van der Berg 1999; Lund, 2006). The old age pension and the child support grant programmes are effective in transferring money to predominantly poor families, especially households with children (Case and Deaton, 1998). Social assistance to the poor in the form of grants is used like normal income would be used by the family to buy clothing, food and education (CASE, 2000: 43). It has sharply reduced the incidence of poverty (Van der Berg, Louw and Yu, 2008).

The gender of the pension recipient in the case of the old age pension is important: literature shows that women allocate the expenditure of the grant more efficiently than male recipients (Duflo, 2003; Lund, 2006). Lund (2006) shows that there is an improvement in the health status and nutrition of the family when the recipient is a woman. Duflo (2003) compares the weight for height of children living in a household where the pension recipient is a male versus a household where the recipient is a female. The weight for height is a good indicator of nutrition as it responds quickly to the change in environment (Duflo, 2003: 3). Her results were that the weight for height for girls increased while that of boys did not change significantly in households that had a female pensioner. In households where the pensioner was male, there was no improvement in the health status of either boy or girl.

The objectives of the child support grant (CSG) are to support the household with the cost of raising a child, to redistribute income, influence birth rates and relieve child poverty (Triegaardt, 2005: 252). The CSG was the result of the Lund Committee of 1996, where the principal aim was to follow the child's development irrespective of economic status. Despite administration challenges within government, research has found that the grant is effective in reaching children in poor households (CASE, 2000: 43). Triegaardt (2005) also notes that the CGS has been the main source of income for poor households, essential for survival. The unintended consequences of this may be that household reproduce as a mean of attaining the CGS so that they can stay out of poverty. There is a positive relationship between a child who received the grant and school enrolment Lund (2006) found this to be extraordinary given the fact that some of the parents did not have a formal education and the household was poor. Despite the contribution that the CSG makes to poverty stricken households, the grant is not fully reaching some impoverished children. A reason could be that because the onus of proof of need lies on the individual households may not have the financial resources of attaining such proof.

South Africa is a developing country that does not have social security for unemployed individuals who have not entered the labour market. The Unemployment Insurance Fund (UIF) is contributory and is not long lasting. But despite the lack of state support for these unemployed, the old age pension has been found to be the main source of support for unemployed individuals in the rural areas (Case and Deaton, 1998). Unemployment persists because individuals attach themselves to households that have at least one pension recipient. Klasen and Woolard

(2009) take the labour market as given, and evaluate how household formation responds to unemployment. They find that the unemployed have a low propensity to set up their own households and live with pensioners to get access to resources. The adverse effect of this coping mechanism is that when resources are stretched too far some households are plunged into poverty due to the pressure on resources (Klasen and Woolard, 2009: 32-34). People are crowded into households; it is common that there is up to three generations living in the same household. Because there is no social policy that directly targets these individuals, their attachment to poor households adversely affects all individuals living in that household.

The effect of other grants and incentives are worth noting such as the foster care grant and disabilities grant (elaborated on in the following section). Families mainly foster children because they themselves are poor and need the additional income. These children are usually above the CSG age. The Foster Care Grant is three times the CSG and lasts longer; therefore people have an incentive to foster children to receive this grant. A positive effect of the Foster Care Grant is that poor household release their children to go and live with other families, changing the formation of the household, where they would be better cared for (Vorster et al, 2000). Social workers have observed that the grants are used as measures of poverty alleviation rather than being primarily to protect a child, and household members do not direct the spending of income towards the child (Naicker, 2005). Whether these grants are well targeted or not still needs to be further investigated.

3.6.3 Social security and the labour market

A household may decide to insure itself against risk by diversifying its sources of income by sending out members of the household to look for work often away from home. Bertrand et al (2003: 30) found that the social pension reduces willingness to participate in the labour force. They find a large drop in the labour force participation of prime aged males, especially in households where there is a female pensioner.

The old age pension and the labour market

Klasen and Woolard (2005) found results that support that unemployment persists because individuals who should be actively looking for work move into households that receive pension. The pension acts as a safety net for people who are unemployed; however the negative effect is that this coping strategy negatively influences job search prospects because the location of the household supporting them is often far from potential labour market opportunities (Klasen and Woolard, 2009). They also observe that these individuals put a strain on the household resources, pulling everyone into poverty. Both Klasen and Woolard (2009) and Bertrand et al (2003) argue that the social grant ends up supporting people whom it was not intended to support; however, Klasen and Woolard (2009) do acknowledge that it is the lack of economic support that reduces a person employment prospects as they cannot work away from home due to additional costs involved in job search.

There is a different view from Posel et al (2003), who investigated migrant labour and the household; mainly how social pension affected the labour supply. Posel et al (2003: 837) argue that if migrant labourers are included as part of the household, the results are different; in fact they show that a pension has a positive effect on labour supply. They found that the social grant facilitated the ability of household members to go look for employment away from home. These results were more prominent among women, who left home to go look for work away from the rural areas, even though it was temporary employment. It freed up female labour as it contributed towards child care and also giving women financial support to migrate to places where there are employment opportunities (Lund, 2006). This is profoundly different from the results obtained by Bertrand et al (2003), who only surveyed resident household members and did not take into account the fluidity of South African household especially the migration aspect.

The reservation wage of individual who are not employed and live in households with grant recipient may be higher. Kingdon and Knight (2000: 2) warn that higher household income which result in intra household transfers to unemployed may lower individuals search efforts as income effect allows them more leisure, the taste for unemployment hypothesis. Empirically Bertrand et al (2003) and Dinkelman (2004) find support for this. Klasen and Woolard (2009) find little evidence of disincentives. Furthermore, Posel et al (2003) found no convincing evidence that prime aged males do not actively seek employment. Black (2004: 419) argues that it is not rational to look for employment if the probability of finding it is too low compared to the effort and the costs involved in the search. For Lund (2006) these findings that suppose that prime aged males were the main beneficiaries of the pension did not make economic sense given the current environment in South Africa "of high unemployment and high search for jobs so desperate that it seems less credible that these men would voluntarily leave the job market" (Lund, 2006: 172).

What can be drawn as a conclusion on the effects of the social grant on labour supply depends much on how the household is included in the model. When it is exogenous to the model, the effects is negative; however if migration labour is included as illustrated by Posel et al (2003), the pension enables women to look for work, where they would previously have been bound by lack of financial support and having to care for children in the household. There is no conclusive evidence on the deterrent effect of the pension on prime aged males.

Effects of the disability grant on the labour market

The impact of HIV/Aids on prime aged individuals would usually mean that a household would forgo the income of the affected member. The Disability Grant (DG) is offered to people who are mentally and physically unable to effectively take part in the workforce including HIV/Aids infected individuals. Provinces undertake the assessment of eligibility differently but the two most common methods are using a panel to assess each case, which would include social workers, nurses, social services officers and community members (Nattrass, 2006a). The other method is to have the district medical practitioner examine the applicant for eligibility. In the Western Cape, it is only individuals who have a CD 4 cell count of less than 200 or are in Clinical stage 4 of AIDS that qualify (Nattrass, 2006a:7). The disability grant is offered on condition that when individuals are restored back to health, they lose the disability grant and herein lies the policy conflict between social welfare and the health policy of rolling out anti-retroviral treatment.

As a health policy to increase the health levels of HIV/Ads individuals, the government rolled out the Highly Active Anti-retroviral Treatment (HAART), which is said to be a highly effective treatment that boosts a person's system, restoring them back to health enough to take up formal employment. Due to the unemployment rate in the country, people who are on the grant discontinue HAART, compromising their health so that they stay on the DG (Nattrass, 2006a). One of the dangers of this behaviour is that discontinued treatment creates a multi-drug resistant strand which spread throughout the population (Nattrass, 2006b). Attitudes to the DG are alarming; many regard it as a lifeline and would rather contract HIV than remain poor. There is a perception that if people do not have a job, they can apply for the DG (CASE, 2005:92).

Furthermore, there was an observed increase in the uptake of the DG between 1995 and 2005. This could in part have been because individuals engaged in risky behaviour and self infection to get the grant, or because of the increase in HIV related illnesses such as TB (Department of Social Development, 2007). Vorster et al (2004) have also noticed that the demographics of individuals receiving the DG are increasingly becoming younger and largely female.

The Child Support Grant (CSG) and the labour force

There are low levels of employment among the primary care-givers, who are mostly women, of children who received the CSG. Their employment rate is 18% compared to the national employment rate among employed women of 33% (Department of Social Development, 2007). Those with a job are low paid or employed for a short period. There are no signs of this grant being a deterrent for attaining employment.

3.6.4 Other incentive effects of social security

The Child Support Grant

There is evidence of increase in teenage births between 1995 and 2005: fertility increased amongst girls in their late teens or early twenties (Department of Social Development, 2006). Young mothers may use the grant to gain financial independence from the household. Mothers receive the grant on behalf of the children, despite the fact that they may not effectively function as the primary caregivers. However, there is counterevidence that should also be considered. Only 5.3% of CSG mothers are young mothers in the group 15-19 and they account for only 18% of all mothers receiving grants in the 2001 census. This implies an underrepresentation – hardly enough motivation to fall pregnant to achieve the grant (Department of Social Development, 2006). The increase in the grant uptake is said to have been mostly because of the increased awareness of its availability. That mothers who are not primary caregivers receive the grant is indicative of the complex household structure in African households.

The foster care grant

A perverse incentive is foster families taking up the grant for their own use instead of assisting the foster child. Due to the overload on the system, especially social workers and children courts who dealt with cases of FCG, social workers opt to register families for the FCG if they do not qualify for the CSG, 'just to get them off their back' (Vorster et al, 2000: 130). So there are issues of capacity involved especially in the poor provinces courts are reported to be overcrowded by claims and social workers are swamped with caseloads (Nattrass, 2006a). The increase in the uptake observed in section 3b, of the FCG is also because many children are being orphaned due to HIV/Aids.

The means tests for the old-age pension and child support grant

The means test for social old age pensions has a number of incentive effects:

- on retirement age, as few people (apart from high income earners) now find it worthwhile to remain in the labour force beyond the inception age for the old age pension;
- on own provision for retirement (e.g. private pensions), as many people have little incentive to provide for own retirement, if the net result will only be that they receive less from the state;
- on preservation of pensions when people leave their jobs and on their choice between whether they should belong to a pension or to a provident fund;
- on asset creation, as certain assets are less visible and therefore less likely to exclude people from benefiting from the old age pension; and
- on household formation, as mentioned above.

Although the means test for disability grants operates in exactly the same way as that for social old age pensions, the pressure for application of this means test falls more often on the application of the disability criteria. This means test would have to be retained even should the old age pension system become universal.

We mentioned earlier that the initial means test for child support grants was based on a two-step procedure:

- First, the full rural and squatter population as well as all other people with an income below R800 per month, were selected;
- Of this group, those with an income of above R1 100 were excluded.

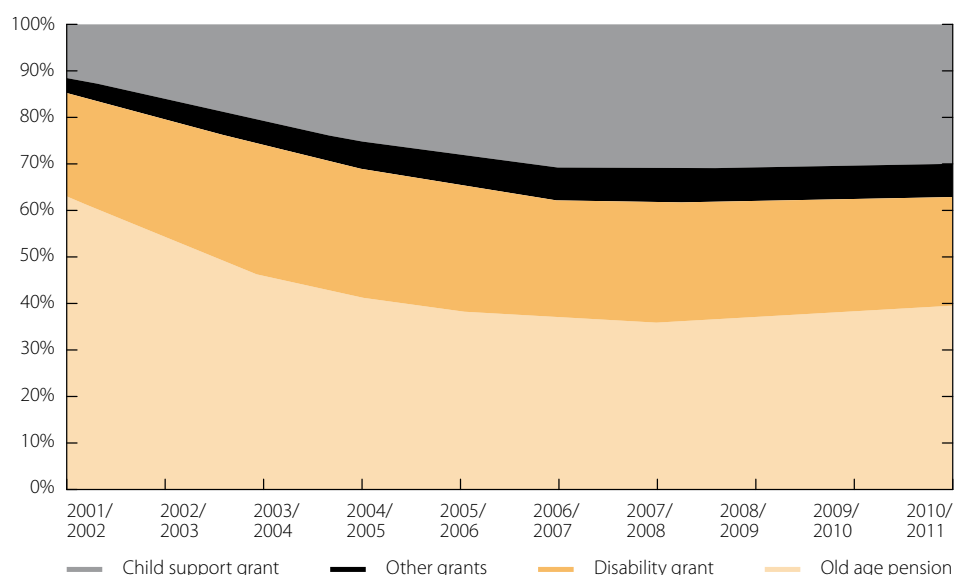
This effectively meant that people in rural and squatter areas received the grant if their income was below R1 100, whilst urban dwellers received it if their income was below R800 per month. Hence, there was a bias towards the rural and squatter population. This bias, however, was eliminated when the means test was changed in 2008. The availability of child support grants nonetheless may still influence where and with whom children reside. Prior to the introduction of the grants, many children were left with grandmothers or relations in rural areas whilst mothers search for jobs in urban areas. The availability of grants in the urban areas has enabled more mothers to keep their children with them; this may have stimulated the migration of children to the urban areas. Whether such migration improves or worsens the welfare of children is ambiguous. They may be better off with their mothers than remaining with grandmother or relations in rural areas, but if the mothers do not have the time to give children the care they need, this may be to their detriment.

3.7. The magnitude and impact of grants: Some quantitative dimensions

3.7.1 The child support grant

Figure 14 confirms that the child support grant is the most rapidly growing grant type. As mentioned earlier, this grant was introduced after the political transition and has been expanded dramatically in scale and as a proportion of total spending on social grants. This has occurred largely because of the very rapid expansion of the child support grant, even at a time when the value and number of other grants have increased as well (see Tables 25 and 26).

Figure 14: Percentage contribution of spending on each type of social grant to total spending on social grants



Source: National Treasury website

Table 25 shows the monthly nominal values of the various grants and how this changed over time, with the CSG at R230 from October 2008 much smaller than most other grants, notably foster care grants. Table 27 and Figure 16 show the real trends in grant value, from which it is apparent that the CSG has not always kept up with inflation.

Table 25: Monthly amount of each type of grant (Rand)

	Old-age pension	Disability grant	War veterans' grant	Foster care grant	Care dependency grant	Child support grant	Grant in aid
April 1999	520	520	538	374	520	100	94
April 2000	540	540	558	390	540	100	100
April 2001	570	570	588	410	570	110	110
April 2002	640	640	658	460	640	140	130
April 2003	700	700	718	500	700	160	150
April 2004	740	740	740	560	740	170	170
April 2005	780	780	780	590	780	180	180
April 2006	820	820	838	590	820	190	180
April 2007	870	870	890	620	870	200	200
April 2008	940	940	960	650	940	210	210

Source: Department of Social Development

As Table 26 shows, the expansion of numbers of grants since the late 1990s was quite strong for all grants, but the dominant trend has been the strong growth of CSG numbers from its inception. It now constitutes almost 8.2 million grants delivered monthly, out of a total of about 12.5 million grants, Figure 15 focuses on the CSG only, to show its very rapid growth.

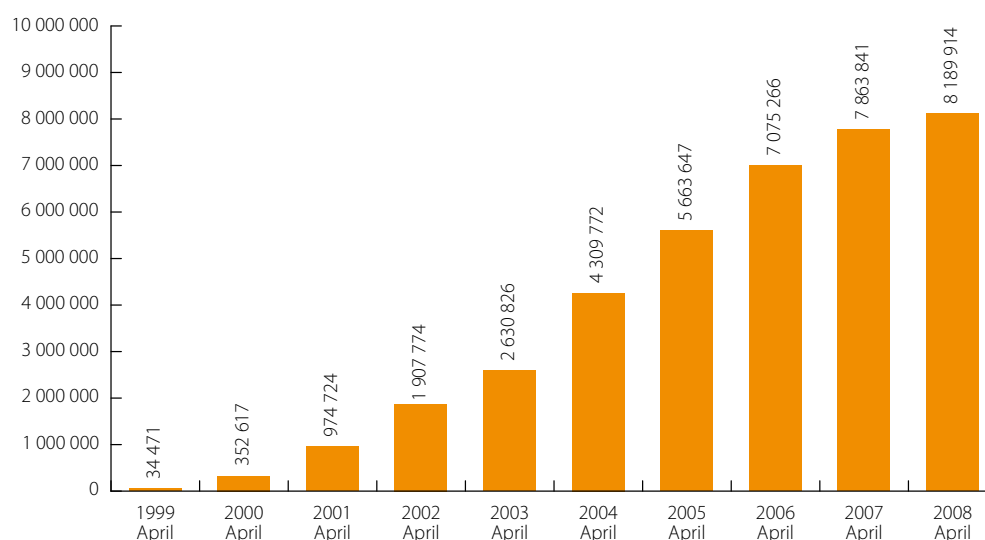
Table 26: Number of beneficiaries of each type of grant

Fiscal year (April 1 – March 30)	Old-age pension	Disability grant	War veterans' grant	Foster care grant	Care dependency grant	Child support grant	Grant in aid
1998/1999	1 812 695	633 778	9 197	71 901	16 835	34 471	8 496
1999/2000	1 860 710	612 614	7 553	79 937	24 438	352 617	8 748
2000/2001	1 877 538	627 481	6 175	85 910	28 897	974 724	9 489
2001/2002	1 903 042	694 232	5 266	95 216	34 978	1 907 774	10 332
2002/2003	2 009 419	953 965	4 594	138 763	58 140	2 630 826	12 787
2003/2004	2 060 421	1 270 964	3 961	200 340	77 934	4 309 772	18 170
2004/2005	2 093 440	1 307 551	3 343	252 106	88 889	5 663 647	23 131
2005/2006	2 144 117	1 319 536	2 832	312 614	94 263	7 075 266	n/a
2006/2007	2 195 018	1 422 808	2 340	400 503	98 631	7 863 841	31 918
2007/2008	2 225 354	1 409 434	1 931	446 994	102 153	8 189 914	37 343

Source: Department of Social Development

The age-eligibility rules for the CSG have been changed in gradual steps. When it was introduced, care-givers who met the means test criteria could receive the grant until the child turned 7. This was expanded to children under 9 years in 2003, to children under 11 years in 2004, to children under 14 in 2005, and it will be further extended to children under 15 in 2009 (see Tables 27 and 28). According to the data from the GHS surveys, the coverage of individual children in the age-eligible group increased from 27% in 2002, to 46% in 2006, while for households with age-eligible children, coverage increased from almost 20 to 51% in the same period (Table 28). Higher coverage with an unchanged means test in nominal terms (implying that in real terms the means test became increasingly strict over the period concerned) implies that the expansion was largely the result of increased roll-out of the grant to a growing proportion of those qualifying for it.

Figure 17 shows that the GHS sample figures deviate somewhat from official figures on CSG recipients. The ratio of the reported grant recipients to the officially reported number of grants extended ranged 85% to 101% over the five years covered by the GHS, which is encouragingly close to the official figures to at least use the GHS to analyse coverage patterns. It is not clear why the deviations between the two data sources occur. With rising coverage, it may be that there is a lag before some respondents (particularly if they are not the caregiver of the child) may become aware of grant receipt. Figure 18 shows rising coverage overall as well as in each of the age groups shown. Initially when a new age group is included, there is low coverage, but this rises to around 50% of eligible households, given the current means test. The more lenient means test recently announced probably implies that these numbers would increase greatly. For this reason, this section of the report focuses on the CSG.

Figure 15: Number of beneficiaries of the child support grant


Source: Department of Social Development

Figure 16: Percentage change in the rand value of the child support grant in 2000 prices versus the inflation rate

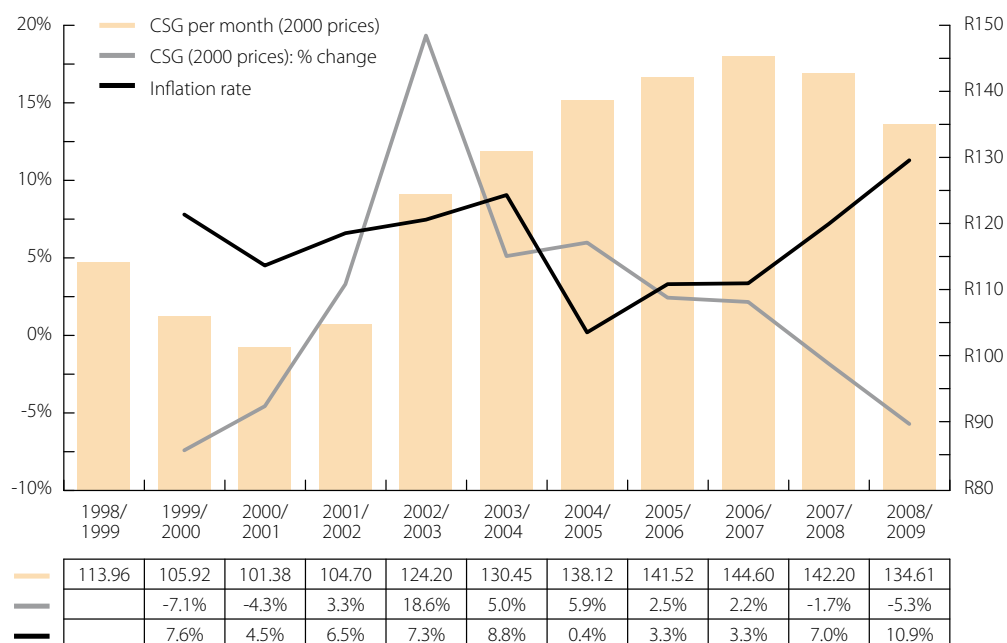


Table 27: The child support grant in South Africa

Who can apply?			
<ul style="list-style-type: none"> The primary care giver of the child or children concerned. The child and care giver must be South African Citizens or permanent residents. The child and the care giver should be resident in South Africa at the time of application. A child or children under the age of 14 (Note: 0-13 years is the eligible age since 2003 April). The care giver and spouse must meet the requirements of the means test. 			
Means test[‡]			
<p>A means test is the test used to measure the financial status of the applicant. In order to receive a grant, the applicant's financial income should be below a certain level. Until the means test was made less strict in 2008, the applicant could pass the means test if he/she lived:</p> <ul style="list-style-type: none"> in a rural area and earned less than R1,100 per month or R13,200 per year in an urban area in an informal settlement and earned less than R1,100 per month or R13,200 per year in an urban area in a house or flat and earned less than R800 a month or R9,600 a year. 			
Eligible age and the grant amount			
Year	Eligible age	Amount per month (Nominal values)	Amount per month (2000 prices) [#]
1998 April	0-6 years	R100	R113.96
1999 April	0-6 years	R100	R105.92
2000 April	0-6 years	R100	R101.38
2001 April	0-6 years	R110	R104.70
2002 April	0-6 years	R140	R124.20
2003 April	0-8 years	R160	R130.45
2004 April	0-10 years	R170	R138.12
2005 April	0-13 years	R180	R141.52
2006 April	0-13 years	R190	R144.60
2007 April	0-13 years	R200	R142.20
2008 April	0-13 years (14-year-olds will be included from 1/1/2009)	R210 (To increase to R220 in 2008 October)	R134.61

Source: Department of Social Development

[‡] As mentioned earlier, the means test for child support grants changed during the course of 2008. The details provided here constituted the means test when most of the data reported on in this section were collected.

[#] The April CPI is used in each year to deflate the nominal values into 2000 values.

In 2001 April, only approximately 1 million people received the child support grants; this figure had increased to more than eight times that in April 2008. Moreover, the spending on child support grants as a percentage of total social grants spending increased continuously (from approximately 7 percent in 2000/2001 to about 30 percent in 2006/2007).

Table 28: Number of individuals and households receiving child support grants

GHS	Eligible age	Recipients of CSG				
		[A]	[B]	[C]	[D]	[A]/[D]
		Of eligible age	Not of eligible age	Total	Population of eligible age	Coverage rate
Individuals						
2003	0-8 years	2 241 760	321 534	2 563 294	8 299 039	27.01%
2004	0-10 years	4 201 481	175 526	4 377 007	11 100 241	37.85%
2005	0-13 years	5 702 793	139 043	5 841 836	14 052 170	40.58%
2006	0-13 years	6 459 760	265 579	6 725 339	14 152 509	45.64%
Households						
GHS	Eligible age	Number of households containing at least 1 child in eligible age	Number of households containing no children in eligible age	Total	Number of households containing at least 1 child in eligible age	Coverage rate
2002	0-6 years	845 577	79 725	925 302	4 329 616	19.53%
2003	0-8 years	1 830 602	42 599	1 873 201	5 141 072	35.61%
2004	0-10 years	2 776 295	29 621	2 805 916	6 054 697	45.85%
2005	0-13 years	3 289 555	20 455	3 310 010	6 701 973	49.08%
2006	0-13 years	3 504 585	35 843	3 540 428	6 884 332	50.91%

Source: Statistics South Africa *General household survey* (various issues)

Figure 17: The number of child support grant recipients of eligible age (a comparison of figures in the General household surveys and official figures released by Department of Social Development)

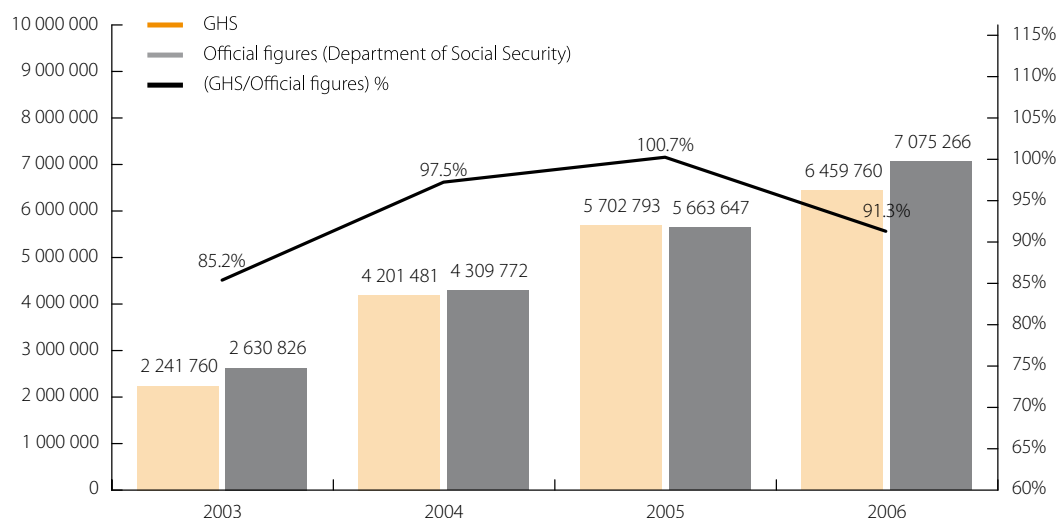
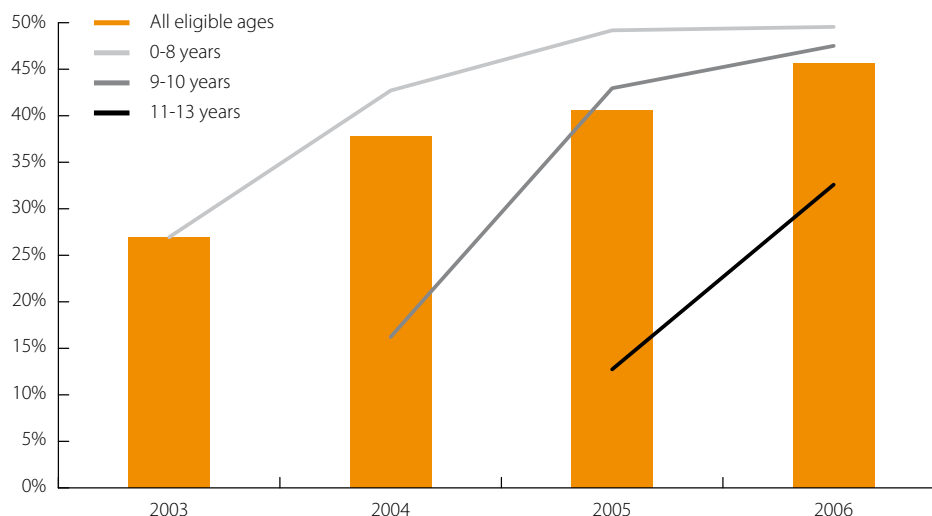


Figure 18: Child support grant coverage rates for different eligible age groups



3.7.2 Demographic characteristics

Table 29 shows the demographic characteristics of the recipients and non-recipients of child support grants at eligible ages, and the results could be summarized as follows:

- Province:** Nearly 60% of the recipients of CSG come from Eastern Cape, KwaZulu-Natal and Limpopo. For Kwazulu-Natal this high proportion reflects its population size, but for both Eastern Cape and Limpopo coverage is far higher than the national average, due to the larger number of poor children found in these two provinces. Note that the Eastern Cape's share of grants rose from 15% to 21% from 2002 to 2006, while that for Limpopo declined somewhat.
- Area type:** More than 60% of the CSG recipients reside in rural areas, though fewer than half of age-eligible children are rural.
- Gender:** There is almost an even split between male and female CSG recipients, indicating that the gender of the recipient child is not an issue that affects coverage.
- Race:** About 94% of the CSG recipients are black, a proportion that has not wavered over the years, despite broadening of coverage through the years.
- Attendance at educational institution at the time of the survey:** In 2003, nearly two-thirds of the non-recipients did not attend educational institution at the time of the survey while the remaining one-third did, but this ratio has reversed in GHS2006. This reflects the fact that the age of eligibility for the CSG has increased, thus reaching more school-age children.

Table 29: Demographic profile of the recipients and non-recipients of child support grants of eligible age

	Eligible age + received CSG				Eligible age + did NOT receive CSG			
	GHS 2003	GHS 2004	GHS 2005	GHS 2006	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Province								
Western Cape	8.1%	6.1%	5.4%	5.2%	9.8%	10.2%	10.9%	11.5%
Eastern Cape	15.1%	16.1%	19.7%	21.2%	16.1%	19.1%	15.3%	13.8%
Northern Cape	1.0%	1.8%	1.7%	1.6%	2.2%	2.1%	2.0%	2.2%
Free State	6.9%	6.7%	7.0%	6.6%	4.9%	5.4%	5.4%	5.7%
KwaZulu-Natal	17.0%	18.4%	20.2%	19.7%	22.9%	22.2%	22.2%	21.5%
North West	9.4%	10.2%	8.0%	8.2%	8.3%	7.3%	8.0%	7.4%
Gauteng	11.9%	10.6%	10.7%	10.9%	18.3%	17.7%	17.8%	19.3%
Mpumalanga	10.6%	9.2%	8.9%	9.2%	6.3%	6.0%	6.6%	6.4%
Limpopo	20.2%	20.8%	18.3%	17.3%	11.3%	10.0%	11.8%	12.3%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Area type								
Urban	38.5%	36.4%	n/a	n/a	50.9%	52.0%	n/a	n/a
Rural	61.5%	63.6%	n/a	n/a	49.1%	48.0%	n/a	n/a
	100.0%	100.0%	n/a	n/a	100.0%	100.0%	n/a	n/a
Gender								
Male	50.0%	51.7%	52.0%	51.3%	51.0%	52.8%	52.5%	52.4%
Female	50.0%	48.3%	48.0%	48.7%	49.0%	47.2%	47.5%	47.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Race								
Black	94.4%	94.1%	94.1%	94.4%	78.5%	75.9%	77.2%	76.0%
Coloured	5.3%	5.6%	5.2%	4.9%	10.2%	10.7%	10.6%	11.3%
Indian	0.2%	0.3%	0.6%	0.6%	2.4%	2.7%	2.8%	2.7%
White	0.2%	0.0%	0.1%	0.1%	9.0%	10.7%	9.4%	10.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Attendance at educational institution at the time of the survey								
Yes	36.7%	49.0%	58.8%	62.6%	46.5%	57.3%	68.7%	66.8%
No	63.3%	51.0%	41.2%	37.4%	53.5%	42.7%	31.3%	33.2%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Area type is no longer available from GHS2005.

Table 30 shows the percentage of people of eligible ages that received child support grants, and the results could be summarized as follows:

- **All:** There is a continuous upward trend in the percentage of age-eligible children receiving CSG (i.e., in the coverage rate), from 27.0% in 2003 to 45.6% in 2006.
- **Province:** The coverage rate is the highest (more than 50% in 2006) in the Eastern Cape, Mpumalanga and Limpopo, but the lowest in Western Cape and Gauteng, reflecting the differences in the preponderance of poverty. The coverage in Western Cape has remained at about 25% throughout the years, while there has been a slight upward trend in Gauteng. In contrast to these provinces, coverage in provinces where one would expect most poor children to be was initially low due to slow roll-out, but rose very rapidly (e.g. from less than 26% to over 56% in Eastern Cape).
- **Area type:** The coverage rate is much higher in rural areas
- **Gender:** The coverage has always differed little by gender, and is rising for both boys and girls.
- **Race:** There is a rising trend in all race groups except whites. Coverage rate is highest for blacks, exceeding 50% in 2006.

- **Attendance at educational institution at the time of the survey:** The coverage rate is always higher for those eligible children not attending educational institution at the time of the survey, largely reflecting somewhat better coverage among younger children.

3.7.3 Household characteristics

Table 31 shows the household characteristics of the recipients as well as the non-recipients of child support grants at eligible ages, and Table 30 the coverage rates. The results could be summarised as follows:

- Recipients of CSG come from households with bigger household size on average than non-recipient households with eligible-age children.
- More than 50% of CSG recipients come from female-headed households. Coverage rates for male and female headed households are quite similar, implying that female headed households constitute the majority of households with age-eligible children.
- More than 80% of CSG recipients come from households headed by people without Matric. Coverage drops sharply from well over half to just over a quarter for children in households where the head has matric, and to even less for those with higher qualifications. This clearly shows the effect of education on earnings and therefore on eligibility in accordance with the means test.
- More than half of CSG recipients are from households headed by married people, but this proportion is showing a downward trend, complemented by an increasing share of CSG recipients from households headed by unmarried people, from 15% in 2003 to slightly above 20% in 2006. Coverage rates are lower for children from households with married heads, but differ only a little for households with other different marital status, though.
- More than half of the CSG recipients come from households headed by people aged 35-54 years.
- CSG recipients should, per definition, usually not be from single generational households, although a small proportion in fact is. It is noticeable too that two-generational households are in the majority and that their share has been rising, contrary to the view that multigenerational households are the norm. Coverage is somewhat higher amongst multi-generational households.

Table 30: Percentage of eligible children receiving child support grants by demographic characteristics

	GHS 2003	GHS 2004	GHS 2005	GHS 2006
All				
All	27.0%	37.9%	40.6%	45.6%
Province				
Western Cape	23.5%	26.6%	25.4%	27.5%
Eastern Cape	25.8%	34.0%	46.8%	56.3%
Northern Cape	14.0%	34.6%	37.2%	39.0%
Free State	34.3%	42.9%	47.0%	49.4%
KwaZulu-Natal	21.6%	33.5%	38.4%	43.5%
North West	29.6%	45.9%	40.6%	48.4%
Gauteng	19.3%	26.8%	29.1%	32.2%
Mpumalanga	38.3%	48.4%	47.9%	54.8%
Limpopo	39.7%	55.9%	51.4%	54.2%
Area type				
Urban	21.9%	29.9%	n/a	n/a
Rural	31.7%	44.7%	n/a	n/a
Gender				
Male	26.6%	37.4%	40.4%	45.1%
Female	27.4%	38.4%	40.9%	46.2%
Race				
Black	30.8%	43.0%	45.5%	51.1%
Coloured	16.0%	24.1%	25.0%	26.6%
Indian	2.3%	5.8%	12.6%	16.6%
White	0.8%	0.3%	0.8%	0.8%
Attendance at educational institution at the time of the survey				
Yes	22.6%	34.2%	36.9%	44.0%
No	30.4%	42.1%	47.3%	48.6%

Note: Area type is no longer available from GHS2005.

Table 31: Household characteristics of the recipients and non-recipients of child support grants at eligible ages

	Eligible age + received CSG				Eligible age + did NOT receive CSG			
	GHS 2003	GHS 2004	GHS 2005	GHS 2006	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Household size								
Mean	6.53	6.46	6.47	6.29	6.16	6.23	5.97	5.78
Std Dev.	2.77	2.76	2.79	2.67	2.84	3.07	2.62	2.50
Gender of household head								
Male	44.1%	42.5%	44.1%	42.6%	56.9%	57.6%	56.7%	57.0%
Female	55.9%	57.5%	55.9%	57.4%	43.1%	42.4%	43.3%	43.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Race of household head								
Black	94.5%	94.0%	94.2%	94.4%	78.6%	75.9%	77.1%	76.1%
Coloured	5.2%	5.7%	5.1%	4.8%	10.0%	10.7%	10.5%	11.0%
Indian	0.2%	0.3%	0.5%	0.7%	2.4%	2.7%	2.8%	2.8%
White	0.2%	0.1%	0.2%	0.1%	9.0%	10.7%	9.6%	10.1%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Highest educational attainment of household head								
No schooling	26.5%	26.5%	25.8%	26.2%	20.4%	20.0%	19.9%	17.2%
Incomplete prim.	27.3%	27.6%	27.4%	26.2%	21.7%	21.7%	20.4%	19.2%
Incomplete sec.	38.4%	36.6%	37.1%	38.4%	35.8%	32.2%	32.8%	34.8%
Matric	6.1%	7.7%	8.2%	8.0%	13.5%	14.6%	15.7%	18.0%
Matric + Cert/Dip	1.2%	1.3%	1.3%	0.8%	3.7%	6.3%	6.5%	6.1%
Degree	0.6%	0.3%	0.2%	0.3%	4.9%	5.3%	4.7%	4.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Marital status of household head								
Married	57.3%	55.1%	52.9%	52.3%	64.7%	64.5%	62.9%	63.6%
Widow/Widower	22.9%	23.4%	23.6%	22.4%	19.1%	19.6%	18.3%	16.3%
Divorced/Separated	4.5%	5.2%	4.8%	4.2%	4.2%	4.3%	4.2%	3.9%
Unmarried	15.2%	16.3%	18.7%	21.1%	12.1%	11.6%	14.6%	16.2%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Age of household head								
Under 18 years	0.1%	0.3%	0.2%	0.2%	0.2%	0.3%	0.4%	0.5%
18-24 years	2.2%	3.0%	2.4%	2.6%	2.1%	2.1%	2.1%	2.5%
25-34 years	16.7%	16.1%	18.7%	17.9%	20.2%	19.4%	17.9%	18.4%
35-44 years	24.7%	24.1%	23.7%	24.4%	28.8%	27.7%	29.6%	30.0%
45-54 years	21.0%	21.2%	21.7%	21.0%	18.7%	19.1%	21.2%	21.2%
55-64 years	17.4%	17.9%	15.8%	15.7%	14.3%	15.0%	14.2%	13.7%
65+ years	17.9%	17.5%	17.4%	18.2%	15.7%	16.3%	14.5%	13.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of generations in the household								
One	3.1%	3.0%	3.5%	3.5%	2.7%	2.5%	3.9%	4.0%
Two	49.7%	52.0%	54.1%	55.5%	60.5%	61.0%	62.5%	64.9%
Three	46.3%	44.2%	41.5%	40.3%	36.4%	36.1%	32.8%	30.6%
Four/Five	0.9%	0.8%	0.9%	0.7%	0.4%	0.5%	0.9%	0.5%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In addition, Table 32 shows the percentage of people in eligible ages that received CSG, and the results show the children coming from households headed by Blacks, without Matric, widowed or unmarried, and with more than two generations of people living together are more likely to receive CSG.

Table 32: Percentage of eligible children receiving child support grants by household characteristics

	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Gender of household head				
Male	26.6%	37.4%	40.4%	45.1%
Female	27.4%	38.4%	40.9%	46.2%
Race of household head				
Black	30.8%	43.0%	45.5%	51.1%
Coloured	16.0%	24.1%	25.0%	26.6%
Indian	2.3%	5.8%	12.6%	16.6%
White	0.8%	0.3%	0.8%	0.8%
Highest educational attainment of household head				
No schooling	32.4%	44.6%	47.0%	56.1%
Incomplete prim.	31.8%	43.6%	47.9%	53.5%
Incomplete sec.	28.4%	40.9%	43.6%	48.1%
Matric	14.2%	24.3%	26.3%	27.2%
Matric + Cert/Dip	10.6%	11.1%	12.2%	10.3%
Degree	4.0%	3.4%	2.9%	5.4%
Marital status of household head				
Married	24.7%	34.2%	36.5%	40.8%
Widow/Widower	30.8%	42.1%	46.8%	53.6%
Divorced/Separated	28.4%	42.7%	43.7%	47.7%
Unmarried	31.9%	46.1%	46.8%	52.2%
Age of household head				
Under 18 years	9.9%	37.2%	23.7%	27.3%
18-24 years	28.0%	45.7%	43.0%	46.5%
25-34 years	23.4%	33.6%	41.7%	45.0%
35-44 years	24.1%	34.6%	35.4%	40.6%
45-54 years	29.4%	40.3%	41.2%	45.4%
55-64 years	31.1%	42.0%	43.3%	49.0%
65+ years	29.8%	39.5%	45.1%	52.9%
Number of generations in the household				
One	29.7%	41.7%	38.2%	42.3%
Two	23.3%	34.2%	37.2%	41.8%
Three	32.0%	42.7%	46.4%	52.5%
Four/Five	45.2%	51.7%	40.9%	52.8%

3.7.4 Labour market

Table 33 shows that the share of inactive household heads is larger among households with eligible-age children who do receive grants than those who do not, indicating that employed household heads are more likely to be disqualified in accordance with the means test. The number of employed household members is only just above two-thirds on average in households receiving grants (which, as has been shown, are usually larger households), whereas it is almost 1 amongst non-recipient households with age-eligible children. The number of household heads who are broadly unemployed has dropped both among recipient and non-recipient households with age-eligible children.

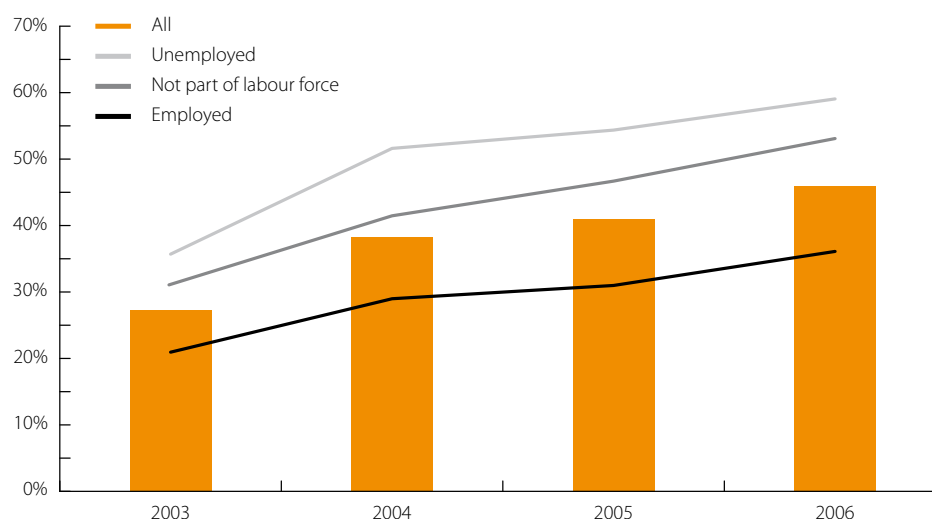
Figure 18 shows the percentage of age-eligible children receiving grants has increased for all employment status categories of households head, indicating broad expansion of the grant and not more targeting on poorer households.

Table 33: Labour market characteristics of the recipients and non-recipients of child support grants

	Eligible age + received CSG				Eligible age + did NOT receive CSG			
	GHS 2003	GHS 2004	GHS 2005	GHS 2006	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Broad employment status of household head								
Inactive	41.5%	41.0%	41.9%	41.5%	32.8%	34.5%	32.1%	31.0%
Employed	35.9%	36.0%	35.8%	36.2%	52.0%	52.7%	54.6%	55.8%
Unemployed	22.6%	23.0%	22.4%	22.3%	15.2%	12.8%	13.3%	13.2%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of employed in the household								
Mean	0.68	0.68	0.67	0.69	0.95	1.00	1.03	1.04
Std Dev.	0.84	0.83	0.83	0.83	0.90	0.92	0.93	0.92
Number of narrow unemployed in the household								
Mean	0.63	0.58	0.60	0.59	0.51	0.50	0.41	0.45
Std Dev.	0.99	0.93	0.94	0.94	0.94	1.00	0.79	0.90
Number of broad unemployed in the household head								
Mean	1.28	1.22	1.18	1.08	1.00	0.96	0.82	0.79
Std Dev.	1.29	1.22	1.18	1.10	1.21	1.32	1.09	1.06

In addition, Figure 19 below shows that eligible children coming from households headed by inactive or unemployed people are more likely to receive child support grants, as these proportions have exceeded 50% throughout the years.

Figure 19: Proportion of eligible children receiving child support grants, by broad employment status of household head



3.7.5 Hunger

Table 34 shows that the proportion of households reporting that children went hungry in the year before the survey declined strongly for both recipients and non-recipient households with age-eligible children, from 56.5% in 2002 to 76.9% in 2006 and from 69.0% to 84.7% respectively. It nevertheless remains surprising that more than 15% of age-eligible households reporting that children have gone hungry in the past year in 2006 still did not get the CSG.

This may point to some over-reporting of child hunger, to temporary episodes of want (although 1.0% of such households still did report that children *always* went hungry), or to the means test or administrative constraints leading to errors of exclusion (poor children not being targeted). This issue deserves further investigation, though the more lenient means test should assist if the means test was the problem. Also, the expansion of the grant has reduced the proportion of non-recipient households with age-eligible children not receiving grants from 33% to 15%, indicating improved *de facto* targeting.

3.7.6 Living standards

The worsening of living conditions amongst recipient households (Table 35) implies not a worsening of conditions per se, but rather that the expansion of the grants (e.g. in the Eastern Cape) has been accompanied by better targeting to households with poor living conditions as the roll out of the grants improved. So, for instance, in GHS2003 only 32.4% of recipients had no tap in the house or on site, but in GHS2006 this figure was 56.7%.

Table 34: Household child and adult hunger frequency by the recipients and non-recipients of child support grants at eligible ages

	Eligible age + received CSG				Eligible age + did NOT receive CSG			
	GHS 2003	GHS 2004	GHS 2005	GHS 2006	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Child hunger: Proportion of households reporting that a child went hungry in the past year								
Never	56.5%	64.4%	67.1%	76.9%	69.0%	72.7%	77.2%	84.7%
Seldom	7.7%	6.6%	6.0%	3.3%	5.0%	5.1%	4.2%	2.9%
Sometimes	24.5%	22.3%	20.1%	16.4%	18.4%	16.4%	13.7%	10.2%
Often	6.8%	4.3%	3.8%	2.0%	4.5%	3.5%	2.7%	1.4%
Always	4.5%	2.4%	3.0%	1.4%	3.1%	2.3%	2.3%	0.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Child hunger: Proportion of households reporting that an adult went hungry in the past year								
Never	54.9%	62.7%	65.7%	76.4%	67.0%	71.7%	76.1%	84.2%
Seldom	8.3%	6.5%	6.2%	3.6%	5.5%	4.8%	4.3%	3.1%
Sometimes	26.3%	22.6%	20.8%	16.3%	19.5%	16.8%	14.2%	10.2%
Often	6.1%	4.8%	4.2%	2.3%	4.9%	3.5%	2.9%	1.5%
Always	4.4%	3.4%	3.1%	1.5%	3.1%	3.3%	2.5%	1.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

3.7.7 Income and expenditure

Table 34 below shows that there is an increasing trend in the proportion of CSG recipients having pensions/grants as the main income source of the household (increasing from 38.0% in 2003 to 49.0% in 2006), but this proportion remains at approximately 25% for non-recipients. A majority of non-recipients claim that salaries/wages are the main income source of the household. Additionally, Table 35 shows that nearly 70% of the recipients of child support grants come from households with monthly expenditure less than R1200 per month, while this proportion is only slightly above 50% in the case of the non-recipients. Furthermore, Table 35 shows that children coming from households spending less than R1200 per month or having pensions/grants as the main household income source are more likely to receive child support grants. It should be noted that the monthly household expenditure categories shown in Table 35 are constant in nominal terms, implying a tightening in real terms of the criteria, as also applied to the means test. (It should also be noted that household size is not considered.) As is to be expected, coverage has expanded in all expenditure ranges. The fact that coverage is still only 60% in the bottom-most category is surprising, and may perhaps be due to non-recipient households in this category being smaller households, but given the means test, one would expect all households in at least the bottom two or three categories to qualify in accordance to receive grants, if these expenditures were accurately recorded.

Table 35: Percentage of eligible children receiving child support grants by living conditions

	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Dwelling type				
Formal	25.5%	35.5%	36.6%	41.3%
Informal	30.7%	42.9%	48.6%	56.0%
Water access				
Piped (Tap) water in dwelling	14.2%	18.9%	21.6%	24.7%
Piper (Tap) water on site or in yard	32.8%	46.9%	47.4%	52.3%
No tap in dwelling or on site (Public tap, or Others)	32.4%	44.7%	49.4%	56.7%
Sanitation				
Flush/Chemical toilet	19.6%	26.5%	28.7%	31.7%
Pit latrine with / without ventilation	31.9%	46.8%	49.8%	55.8%
Bucket toilet/None	34.3%	43.5%	50.3%	60.4%
Fuel for cooking				
Electricity/Solar	19.5%	28.4%	30.8%	35.3%
Paraffin	33.3%	46.5%	50.7%	57.3%
Wood	33.9%	46.4%	50.4%	58.0%
Others/None	33.1%	43.4%	47.8%	54.5%
Refuse removal				
Removed at least once a week	21.2%	28.8%	31.4%	34.4%
Removed less than once a week	17.9%	39.3%	43.1%	41.8%
Communal refuse dump	29.2%	33.0%	48.4%	56.1%
Own refuse dump	32.9%	45.8%	48.8%	56.4%
Others/None	21.4%	40.2%	46.4%	53.9%
Availability of telephone				
Yes	12.4%	15.5%	16.0%	19.7%
No	30.1%	42.2%	44.8%	49.7%
Availability of cell phones				
Yes	22.8%	33.3%	37.2%	43.2%
No	29.8%	42.3%	46.6%	51.7%

Table 38 and Figure 20 show the coverage rate by deciles of mean earnings (i.e. of employed household heads). It is clear that for this sub-group there is quite good targeting, in that the poorest deciles are far better covered, and that the expansion of the CSG over the years has improved the coverage at the bottom end of the earnings distribution.

Table 36: Household income and expenditure information by child support grant receipt status

	Eligible age + received CSG				Eligible age + did NOT receive CSG			
	GHS 2003	GHS 2004	GHS 2005	GHS 2006	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Main income source of household								
Salaries/Wages	34.2%	32.8%	34.4%	34.5%	53.8%	53.7%	57.5%	59.5%
Remittances	19.5%	19.0%	12.8%	11.9%	16.0%	13.7%	12.1%	11.2%
Pensions/Grants	38.0%	40.9%	46.8%	49.0%	23.6%	26.2%	24.3%	24.5%
Sales of farm products	0.9%	0.8%	1.0%	1.3%	0.9%	1.0%	0.8%	1.2%
Other non-farm income	6.3%	6.3%	4.5%	2.8%	4.0%	4.7%	3.8%	2.4%
No income	1.2%	0.3%	0.6%	0.5%	1.7%	0.8%	1.4%	1.3%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Monthly household expenditure (Rand, nominal values)								
R0-R399	30.7%	20.5%	22.1%	20.2%	23.0%	14.1%	13.7%	11.3%
R400-R799	38.7%	40.6%	40.6%	40.8%	30.5%	28.5%	28.0%	27.5%
R800-R1 199	17.9%	20.8%	19.3%	22.3%	16.3%	15.7%	15.2%	17.6%
R1 200-R1 799	6.7%	10.3%	9.9%	9.4%	8.2%	11.7%	11.9%	12.6%
R1 800-R2 499	3.7%	4.6%	4.6%	4.0%	5.5%	7.4%	7.6%	8.1%
R2 500-R4 999	2.0%	2.8%	2.9%	2.9%	8.4%	11.6%	12.4%	11.0%
R5 000-R9 999	0.4%	0.4%	0.5%	0.4%	5.4%	7.8%	7.7%	8.2%
R10 000+	0.0%	0.1%	0.1%	0.1%	2.8%	3.2%	3.4%	3.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

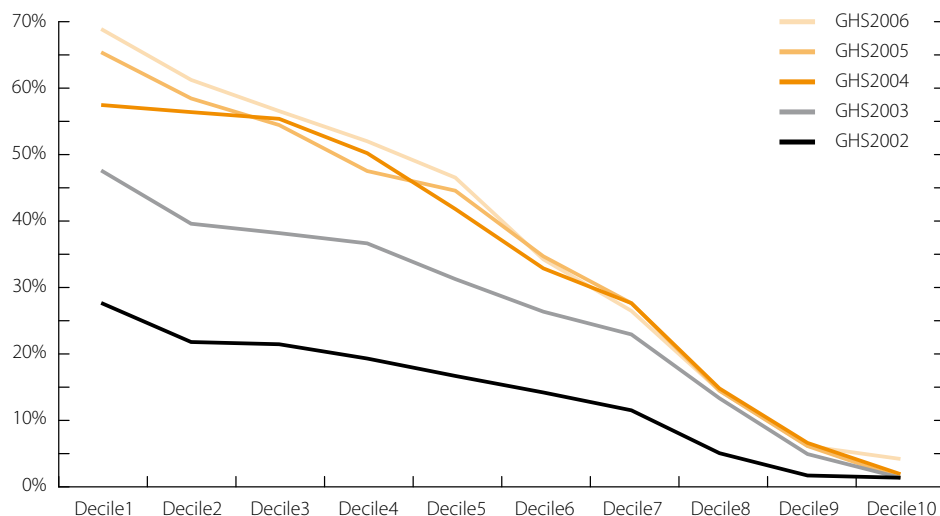
Table 37: Percentage of eligible children receiving child support grants by monthly household expenditure

	GHS 2003	GHS 2004	GHS 2005	GHS 2006
Monthly household expenditure (Rand, nominal values)				
R0-R399	33.7%	47.2%	52.7%	60.1%
R400-R799	32.5%	46.8%	50.0%	55.7%
R800-R1 199	29.5%	44.9%	46.7%	51.8%
R1 200-R1 799	23.8%	35.4%	36.3%	38.7%
R1 800-R2 499	20.3%	27.6%	29.6%	29.3%
R2 500-R4 999	8.1%	12.8%	13.8%	18.4%
R5 000-R9 999	2.5%	2.9%	4.6%	3.8%
R10 000+	0.0%	1.5%	1.5%	2.6%

Table 38: CSG coverage by earnings decile of the employed

	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	All
GHS2002	28.3%	22.5%	22.2%	20.2%	17.5%	15.1%	12.5%	6.1%	2.9%	2.6%	16.1%
GHS2003	47.8%	40.0%	38.5%	37.1%	31.8%	27.0%	23.7%	14.3%	6.0%	2.2%	28.3%
GHS2004	57.4%	56.4%	55.4%	50.3%	42.0%	33.3%	28.3%	15.6%	7.7%	3.1%	36.6%
GHS2005	65.2%	58.4%	54.5%	47.7%	44.8%	35.2%	28.3%	15.7%	7.4%	2.6%	37.4%
GHS2006	68.8%	61.2%	56.5%	52.1%	46.8%	34.8%	27.2%	15.4%	7.2%	6.0%	39.5%

Figure 20: CSG coverage rates in households by earnings decile of the employed



3.7.8 Incentive effects of the CSG

Little research has thus far been conducted on the impact of the CSG, both on poverty and on behaviour, yet the latter aspect in particular has generated heated public debate, with some people arguing that the CSG increases fertility. It is not possible to draw strong conclusions on this, yet a descriptive analysis of potential behavioural effects can perhaps be useful. These effects can potentially be categorised into its impact on the following related aspects:

- Fertility
- Household composition or formation, and thus also migration.

The first of these is undoubtedly the potential impact that receives most public attention. Little evidence, apart from anecdotal evidence, has been presented to support such a view.

Economists would argue that incentives matter, and that the CSG changes incentives for having children. Yet, at the same time, as supporters of the CSG often argue, R230 per month (the present value of the grant) is a rather small benefit to be gained for having a child, compared to the additional costs that a child brings. It is only amongst the very poor, mainly in rural areas, where it is possible that the benefits could be seen to outweigh the costs. On the other hand, incentives matter at the margin: It is likely that there are some people for whom the additional benefits of having a child may make it less unattractive than it may otherwise have been. To use some of the anecdotal examples, for a teenage girl in poor circumstances in rural areas, the fact that such a grant exists may have an influence on how careful she is to avoid pregnancy. This alteration in incentives is thus likely to have some positive impact on fertility, as critics argue. But how large would such an effect be, and how widespread? It is likely that only a relatively small number of people would be in such a situation where a small grant would alter their behaviour in such a manner. Were the grant large (say ten times as large), a different scenario might have arisen (yet examples of where governments have tried to stimulate fertility in some developed countries have shown that it is very difficult to do so even by offering large incentives; other factors than only costs and benefits seem to enter these behaviours). There has been no clear evidence of fertility increases, or a reduction of the age of first conception, to support the view that the CSG has increased fertility; it may at most have succeeded in slightly slowing the rate of decline of fertility compared to what it would have been.

It is well established that, in South African circumstances, households form around income. The large old age pension has had a particularly strong effect in this regard in rural areas. Many studies indicate that household formation and composition are endogenous, i.e. that the social grant system affects the formation and composition of households (see e.g. Klasen and Woolard, 2009). Little of this research has yet been conducted on the impact of the CSG, but it is likely to have had some effect on household structure, even though the individual benefit is less than a quarter of that of the social pension. Posel et al (2003) argue that the CSG provides rural women with the capital to migrate to urban areas in search of jobs. On the other hand, it is not certain whether the existence of the CSG encourages

mothers who do migrate to keep their children with them rather than to leave them with relatives in rural areas. Nor is it clear which would be better for the child, as being with the mother in urban areas would only be an improvement if good care facilities or other options are available.

3.8. Conclusions

This paper confirms that South Africa has a well-developed social assistance system that is exceptionally large by middle-income country standards. South Africa's social grants are very well targeted and have a significant mitigating impact on poverty. Considerable uncertainty remains about some of the incentive effects of these grants, but it is becoming increasingly clear that they influence the behaviour of recipients and potential recipients in variety of ways, not all of which are necessarily benign. The emergence of firm evidence, or even sufficiently strong perceptions, of widespread perverse incentives resulting from social assistance schemes may raise the attractiveness to South African decision makers of programmes such as workfare and conditional cash transfers. In other countries, such programmes have shown promising signs of the ability to simultaneously alleviate poverty and incentivise desired behaviour. Important aspects of their longer-term impacts remain unclear, however, and their applicability in South Africa would depend crucially on contextual factors such as the availability of work opportunities for workfare participants and the ability of educational and health care institutions to participate effectively in conditional cash transfer programmes. There is much scope for further research on the potential of these and other innovative social assistance schemes in the South African context.

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3.9.2 List of other publications produced by project

Annual Submission for 2010/11 Division of Revenue

Chapter 4: Performance of Public Hospitals

4

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4.1. Background

Public hospitals are an integral part of the public health system. Not only do they provide more specialised levels of care, but academic hospitals also provide a platform for the training of health professionals. Notwithstanding the importance of these institutions, recent budget and spending trends suggest that in the process of scaling up primary health care (PHC) programmes, public hospitals are not given sufficient funding and are therefore neglected. For those that receive funding, growth in such funding is inconsistent and unstable.

Between 2003 and 2006, district, provincial and central hospitals recorded marginal yet persistent overspending across the majority of provinces. This may be a reflection of under-budgeting for these functions. Related performance outputs such as variations in the cost per patient day equivalent across similar types of hospitals is also a sign that there are no norms and standards in place which are applied uniformly across hospitals. The current legislative framework relating to public hospitals also lacks proper integration and coordination. These are elements that are essential if government wishes to achieve a well-functioning hospital system. This paper is organised as follows:

- The constitution, policy and legislation governing public hospitals;
- Literature review;
- The budget framework and financial resources in primary health care provision; and
- Summary and recommendations.

4.2. Objectives

The purpose of this paper is to assess dominant factors affecting the performance of public hospitals in South Africa. The analysis should contribute to the development of a comprehensive framework for measuring the performance of public hospitals in South Africa.

4.3. Methodology

The methodology used in this paper involves a broad overview of the policy priority attached to public health-care and hospitals/specialised levels of care in South Africa. In order to achieve this, a review of relevant health-related legislation/annual reports et cetera is undertaken. At this point an aggregate, province level analysis of the budget and spending trends of the various types of hospitals (district, provincial and central) was conducted. This provides an idea of the aggregate budget and spending performance of hospitals as well as the priority relative to allocations of other public health programmes. The budget analysis is based on seven years of data (2004 to 2010) sourced from the National Treasury's Provincial Budgets and Expenditure Review (PBER). Further, extensive literature review was conducted both international and local, followed by status quo of the public hospitals.

* We would like to express our gratitude to all those that have contributed to the finalisation of this paper. Chief contributors we would like to acknowledge are Dr Ramos Mabugu, Dr Alex van der Heever, Tebogo Makube, Vincent Makinta, Conrad Van Gass and Melinda Potgieter. We are also grateful to the researchers and the Commissioners at the Financial and Fiscal Commission. Valuable contribution from the National Department of Health and National Treasury are gratefully acknowledged. Without their assistance, this paper wouldn't have been finalised.

4.4. Key results and discussion

4.4.1 The Constitutional Framework and Public Hospitals Administration

Guided by the Constitution of South Africa, Chapter 2 deals with the Bill of Rights, in particular section 27(1)(a) stipulates that everyone has the right to have access to health care services, including reproductive health care. Section 27(2) provides for these rights to be met by the state within reasonable legislative and other measures within its available resources. The Constitution, under schedule 4, provides a clear assignment list of functions to be either exclusively or concurrently performed by any of the three spheres of government.

The National Health Act (2004) provides a regulatory framework and defines the roles of the national and provincial health authorities. The White Paper of 1997 on the Transformation of the Health Systems provides policy direction to unify the fragmented health services into a comprehensive and integrated national health service, promote equity, accessibility and utilisation of health services. It recognises that the PHC system cannot work effectively on its own without proper support of hospitals, if it is to ensure the delivery of an integrated package of service delivery.

In providing this health service, legislation and policy define the roles and responsibilities of both the national and provincial health departments. National government is largely responsible for formulating policy, determining the regulatory framework and monitoring the overall implementation by the provincial health departments in line with a nationally determined framework.

The provision of provincial health services is split into three levels, namely primary, secondary and tertiary health care. The primary health (clinics) or level one care is provided by district hospitals; secondary health, or level two care, is provided by regional hospitals; and tertiary health, or level three care, is provided by central academic hospitals. Each level of health care is meant to be a more specialised level than the one below it. The standard criteria are that patients ought to enter the health care system at the clinic level for examination before they are referred to the next and higher level.

A number of policy documents exist that govern the provision of health care services. These are, however, not coordinated and integrated. For example, the White Paper (for the Transformation of the Health System) notes that the PHC system will not function efficiently on its own without proper support of the hospitals to which they refer patients, such that substantial improvements to the PHC need to be intimately connected with the functional efficiency of hospitals. Existing gaps in the various roles of the spheres of government in terms of fulfilling those responsibilities can be interpreted as a lack of adherence to the legislation by the spheres of government.

Broad policies in support of the health care services exist (which makes reference to hospitals) but they are not effectively implemented because, among other things, there is no specific national hospital policy or Act guiding the operations of these public institutions. While there are norms and standards for PHC (clinics and community services), there is currently a lack of norms and standards for hospitals to guide the delivery of services. Therefore, the setting of norms and standards will assist in providing some indication of the quality one should receive at the level of the hospital. In addition, the setting of this type of benchmark facilitates improved assessment of service delivery.

Some of the reviewed South African literature on hospital management has indicated the need for a reform of the public hospitals (van Holdt and Murphy, 2006; NALEDI, 2005). In its 2001 submission (as part of the establishment of a framework for local government finance proposals), the FFC highlighted that there was confusion around the allocation of functions and funding between spheres of government with respect to health. Current literature also points out that, at present, the location of functions and responsibilities between provincial health departments and public hospitals is vague. For instance, there is no clear point of decision-making between these institutions. It is not clear where head office control ends and institutional responsibilities begin. Even if decisions take place, they involve significant bureaucratic processes. The report by the South African Human Rights Commission (SAHRC) 2006 notes that dependency on public health care services has increased due to, among other things, the HIV/AIDS pandemic (see also Von Holdt & Murphy (2006) NALEDI report (2005). The SAHRC report argues that despite government's efforts many South Africans still do not enjoy affordable and adequate access to health care facilities hence the constitutional right to health care has yet to be realised.

Some of the key findings on a joint report on 'Investigating the role of power and institutions in hospital level implementation of equity-oriented policies' stresses the potential importance of management styles and workplace trust to policy implementation. The arguments are that these issues, if taken into account, can, among other things,

help to foster a sense of buy in and reduce resistance to policy implementation. For instance, arguments are that bureaucratic forms in the public sector do have a potential to support policy implementation in instances where policies have clear goals which are tightly specified. However, where policies are ambiguous and there are conflicts, implementation is less likely¹. Lastly, the report is of the view that effective policy implementation requires the adoption of empowering forms of management (i.e. exercising the power to act) that would enable cooperation among those involved in policy implementation. The report further argues that this result is closely linked to the importance of network management.

Another joint report - 'Tackling implementation gaps through health policy analysis' indicates that implementation gaps can be tackled through health policy analysis - where policy analysis could focus on understanding forces that influence why and how policies are initiated, formulated, negotiated, communicated, implemented and evaluated². The report further elaborates that health policy analysis needs to take account of:

- The role of health policy actors (include implementers and beneficiaries in policy change/ implementers).
- How actors use their power in decision making (negative/positive impact).
- The influence of laws, rules, norms and customs over the behaviour of actors/stakeholders.
- Influence of global interests and forces over the national and local actors.

The concluding lessons from the report on implementing health policy analysis - is the critical importance of including a wide variety of stakeholders, (including the public, public sector, the bureaucrats and health professionals). An example is made in the report where health workers or managers resisted efforts to give community representatives greater decision making authority at local level in Zambia, resisted efforts to re-allocate staff equitably between geographic areas in Cape Town (SA) and in Tanzania, the Community Health Fund that contributed (low coverage and low enrolment) due to managers resisting to the 'rushed top down' way the policy has been imposed.

International literature shows that organisational reform of hospitals is an important determinant of performance. Reforms aimed at granting hospitals more independence may lead to greater efficiency gains and better performance. The rationale behind the reform is that greater independence can mitigate disadvantages commonly associated with publicly provided services (for example inefficiency, low productivity, fraud and corruption), while entrenching a culture of good governance in ensuring the independence of hospitals.

Entrenching a culture of good governance is essential to ensuring that autonomous hospitals are successful. According to Jakab et al. (2002: 51), three things are essential for good governance, namely:

- The objectives of government need to be narrow, clear and non-conflicting. These then need to be translated into clear and measurable criteria for management performance.
- The responsibility for supervising management should be vested in an effective, professional body or board of directors that abides by a clear set of responsibilities and accountabilities.
- There should be consistent monitoring and motivation of hospital management. Good performance should be rewarded, while poor performance should be met with penalties/consequences.

It is thus clear that transforming from purely public to more autonomous hospitals requires adequate segregation of roles and responsibilities. Important in this transition is the entrenchment of good corporate governance, which places emphasis on respecting authority and responsibility allocated to various role-players. Therefore, organisational structure is considered a strong determinant of good performance. Autonomy-enhancing reforms are a prerequisite for addressing a broad range of performance issues unique to hospitals (La Forgia and Couttolenc, 2008; WHO, 2003).

¹ Joint Report by Wits Centre for Health Policy, Health Economics Unit at UCT and Health Economics and Financing Programme at London School of Hygiene and Tropical Medicine.

² Joint Report by the Wits Centre for Health Policy and Health Economics Unit at UCT.

4.4.2 The budget framework

In the case of health care services, funds flow through the provincial equitable share (PES) formula. The health component (based on the share of the province's population with medical aid and weighted population without medical aid coverage) constitutes 26% of the PES. To fund health services, provinces receive a portion of the PES. In addition, there are five major conditional grants, namely the comprehensive HIV and Aids, forensic pathology services, health professions training and development, hospital revitalisation and national tertiary services. According to the national Department of Health (2008) South Africa has 427 public hospitals, whose funding is provided through three broad programmes, namely district, provincial and central hospitals.

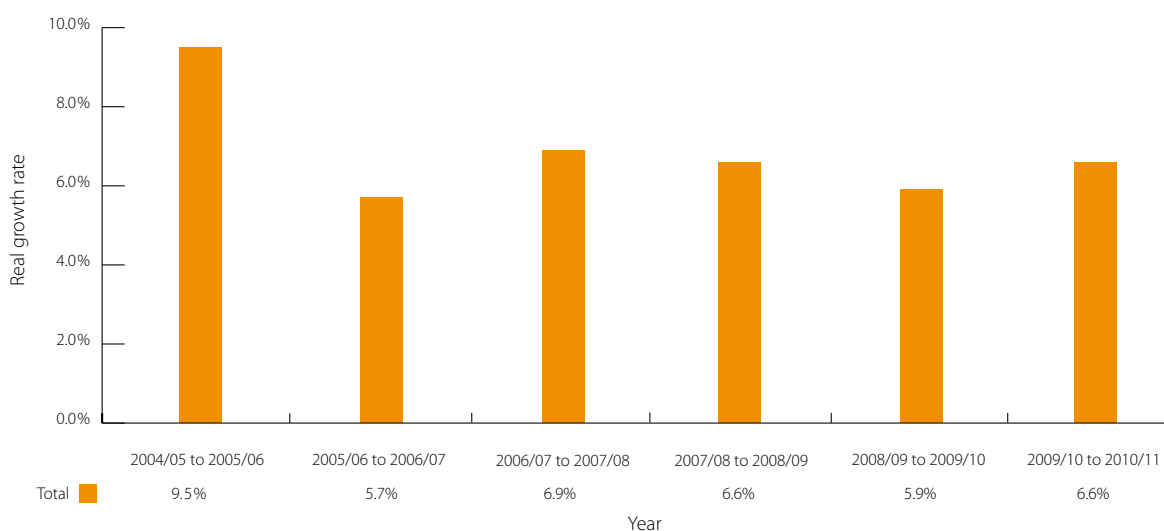
Three provincial health programmes exist within provinces: the central hospitals programme, the provincial hospitals programme and the district hospitals programme. Within the provincial health budget structure, provincial and central hospitals are stand-alone programmes. District hospitals are a sub-programme within the district services programme. It should be noted that as a result of the current structure of provincial health budgets and the classification of district hospitals as a sub-programme, it is not possible to determine the portion of personnel, goods and services and capital attributed to this type of hospital. This is because these items are provided at a programme level; thus in the case of the district hospitals sub-programme, it is provided for the district health services programme, and not the district hospitals sub-programme itself; while in the case of provincial and central hospitals, this type of analysis becomes possible.

4.4.3 Financial resources in the provision of public health care

At present there is no standardised national approach used to determine the structure of hospital budgets. Different formats are applied by provinces, which makes it difficult to assess implementation challenges at a delivery level. An incremental approach that uses the previous year's allocation as a basis for allocations is employed in all provinces (Okorafor, 2005). This is backed by the National Treasury's provincial programme structure database. The ideal course would be to link allocations more closely to workload and other service delivery outputs.

Since 2004, there has been a decline in the real growth of funding allocated to the implementers of public health. This is projected to stabilise at 6.6% by 2010. This level of growth is informed by the annual average growth rate as recorded in this sector over the entire seven-year period (2004 to 2010) under review, as Figure 21 below illustrates.

Figure 21: Real growth in allocations to public health care



From a provincial health programme perspective, over the entire period, and most certainly as of 2007/08, capital investment was and will continue to be the fastest growing expenditure item on provincial health budgets. This is evident from Table 39. Over the medium-term period, and indeed over the entire seven years under review, growth in allocations to capital has exceeded growth in goods and services, personnel, and transfers and subsidies. Within the various provincial health programmes, this is reflected in the strong growth characterising the health facilities management programme between 2004 and 2010.

With respect to core public health care service delivery interventions, Table 39 indicates that emergency medical services (EMS) have been strongly prioritised. This prioritisation can be seen as a reflection of both the need to fulfil the constitutional imperative with respect to EMS as well as the need to facilitate the sector's readiness for the 2010 FIFA World Cup. The position that growth in the EMS programme is being driven predominantly by the need to ensure readiness for the 2010 FIFA World Cup is reinforced by the shift in the driver of growth in the sector in 2010/11, from EMS to central hospitals. Central hospitals show the strongest real growth in 2010/11 although, if one considers growth over the entire seven-year period, this programme has recorded the least growth of 2.7%.

Investment in the training of health professionals reflects an unstable growth path over the entire review period, ranging from 18.9% in 2005/06 to -3% in 2009/10 before reaching 2.7% in 2010/11. Given the labour-intensive nature of the provision of health care, the apparent lack of stability in budget allocations is a cause for concern.

Table 39: Budget and spending trends of programmes on provincial health budgets

Programme	Real Growth Rates				Under/ Spending	Medium-Term Budget			Real growth Rates	
	2004/05 to 2005/06	2005/06 to 2006/07	2006/07 to 2007/08	2007/08 to 2008/09	2007/08	2008/09	2009/10	2010/11	2008/09 to 2010/11	2004/05 to 2010/11
Administration	-9.80%	9.40%	-2.40%	18.40%	-1.70%	2,374,793	2,308,087	2,365,252	-0.20%	1.90%
District Health Services	8.40%	6.00%	11.90%	5.50%	-2.50%	26,368,594	27,931,592	29,809,836	6.30%	7.00%
Emergency Medical Services	23.70%	8.50%	12.40%	10.00%	-1.50%	2,725,867	2,972,759	3,140,014	7.30%	11.10%
Provincial Hospital Services	5.90%	3.40%	3.50%	1.80%	-1.30%	14,751,466	15,698,712	16,592,240	6.10%	4.20%
Central Hospital Services	9.80%	-0.60%	-1.10%	-0.70%	-3.80%	8,962,338	9,533,782	10,233,000	6.80%	2.70%
Health Sciences and Training	18.90%	5.90%	8.10%	23.80%	-3.60%	2,401,233	2,328,951	2,392,822	-0.20%	8.40%
Health Care and Support Services	28.80%	-1.00%	12.00%	11.40%	-16.80%	1,066,216	1,053,812	1,154,096	4.00%	6.70%
Health Facilities Management	30.10%	26.90%	8.10%	25.30%	-0.20%	6,239,722	6,907,075	7,573,676	10.20%	18.00%
Total	9.50%	5.70%	6.90%	6.60%	-2.40%	64,836,117	68,683,117	73,199,504	6.30%	6.40%

Source: Own calculations based on data from National Treasury (2008a).

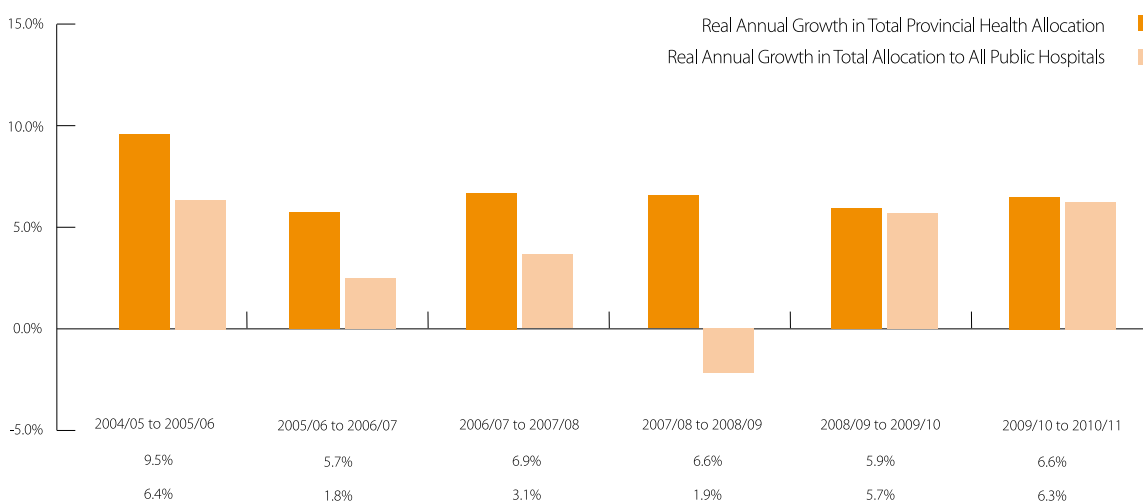
Similar to other countries, hospitals in South Africa constitute the largest expenditure item on health budgets. As illustrated in Table 40, the proportion of the provincial health budget allocated to hospitals has been diminishing. Based on National Treasury provincial financial data, the proportion has declined from 61.6% in 2004/05 to a projected 52.2% in 2010/11, almost outside the range of the 50-70% international norm.

Table 40: Proportion of total provincial health budgets allocated to public hospitals

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
R'000	Audited			Revised estimate	Medium-term estimates		
Total hospital allocation at the provincial level	31,021,354	32,996,796	33,581,137	34,629,196	33,987,709	35,935,265	38,216,769
Total Provincial health allocation	50,353,362	55,146,085	58,278,282	62,273,689	64,836,512	68,683,117	73,199,504
Provincial health budgets allocated to hospitals	61.60%	59.80%	57.60%	55.60%	52.40%	52.30%	52.20%

Source: Own calculations based on data from National Treasury (2008a).

Coupled with the declining shares of allocation, Figure 22 shows that real growth in hospital allocations has not kept pace with general growth in provincial health budgets between 2004/05 and 2008/09. For example, in 2007/08 the total allocation to public hospitals declined to just below 2%. This pattern reverses somewhat towards the outer years of the current Medium-Term Expenditure Framework (MTEF) period, where the average growth in the allocations to hospitals comes closer to the average growth in provincial health budgets.

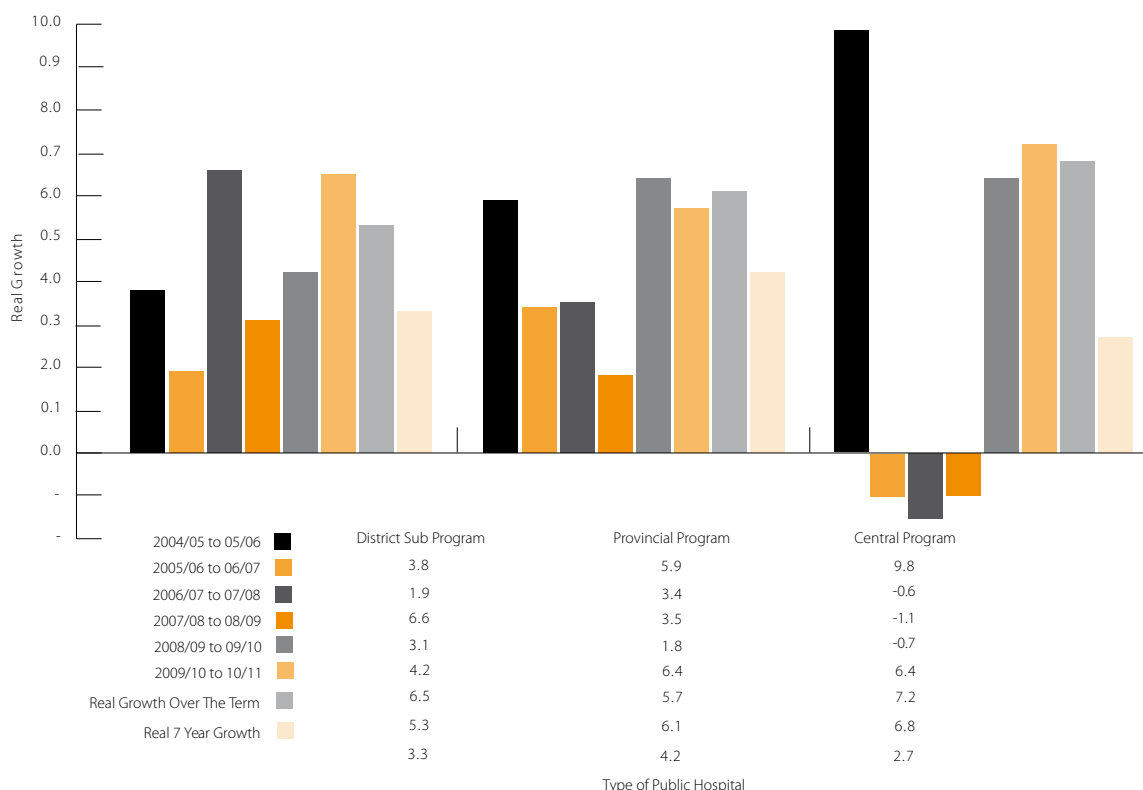
Figure 22: Real growth in allocations to public health care


Source: Own calculations based on data from National Treasury (2008a).

Figure 23 examines the financial trends for hospitals according to programme type, that is, district, provincial and central. The main findings are as follows:

- Over the entire seven-year review period, all hospital types reflect an unstable growth path that is increasing one year and declining in the other.
- For all hospital types, there is sufficient growth of 5-7% in real terms in the outer years of the 2009 MTEF period.
- Central hospitals illustrate the strongest growth over the 2009 MTEF. This is however on the back of a very marginal to slow growth of just above 2% over the period 2004/05 and 2010/11.

Figure 23: Real growth within the various types of public hospital programmes



Source: Own calculations based on data from National Treasury (2008a)

As alluded to in Section 4.2., the current provincial health budgets structure and the classification of district hospitals as a sub-programme, does not allow for deeper analysis of the portion of personnel, capital and goods and services attributable to district hospitals. The inconsistent way in which these programme-level items are classified further inhibits analysis.

The two major conditional grants, namely the national tertiary services grant and the hospital revitalisation grant were analysed. The hospital revitalisation grant is a non-discretionary schedule five grant that provides an exclusive funding stream for capital expenditure on health infrastructure outside of the PES. An analysis of the spending during the review period shows that this grant has experienced significant under-spending. Part of the challenge with this grant is that allocations do not occur within the context of a broader, strategic framework for hospital infrastructure and as such misallocations are possible (see Table 41).

Table 41: Hospital revitalisation conditional grant to provincial health departments

Name of conditional grant	Real growth rate				Under/ (over)- spending 2007/08	Medium term estimates (R'000)			Real growth over the medium term
	2004/05 to 2005/06	2005/06 to 2006/07	2006/07 to 2007/08	2007/08 to 2008/09		2008/09	2009/10	2010/11	
Hospital Revitalisation Grant	27.20%	30.40%	23.50%	23.90%	8.90%	2,691,562	2,743,083	3,091,693	7.20%

Source: Own calculations based on data from National Treasury (2008a)

The national tertiary services grant is allocated to provincial health departments to plan, modernise, rationalise and transform the tertiary hospital service delivery platform in line with national policy (Division of Revenue Bill, 2009). The grant compensates provinces for any supra-provincial services, that is, services for patients that extend beyond the provincial boundaries with spill-over effects. The funding is further geared at enabling provinces to transform and modernise tertiary services in line with principles of equity and access (National Treasury, 2008b). This grant is a significant source of funding within the central hospitals programme (see Table 42).

Table 42: National tertiary services conditional grant to provincial health departments

Name of conditional grant	Real growth rate				Under/ (over)- spending 2007/08	Medium term estimates (R'000)			Real growth over the medium term
	2004/05 to 2005/06	2005/06 to 2006/07	2006/07 to 2007/08	2007/08 to 2008/09		2008/09	2009/10	2010/11	
National Tertiary Services Grant	5.80%	-3.40%	-3.40%	6.60%	2.30%	5,672,861	5,815,802	6,208,608	4.60%

Source: Own calculations based on data from National Treasury (2008a)

4.5. Conclusions and recommendations

4.5.1 Conclusions

The primary purpose of this chapter was to assess factors affecting the performance of public hospitals in South Africa. In assessing public hospital performance, the chapter analysed and reviewed domestic and international literature on the subject matter. The chapter recognises that public hospitals in South Africa often operate under challenging circumstances. The government has initiated legislative, policy and budget reforms to increase the administrative and financial performance of the public health services. The recommendations below are a contribution to the development of a comprehensive framework for measuring and improving the performance of public hospitals in South Africa.

The findings indicate that while the rights to have access to health care are stated in the Constitution and enabled frameworks, bottlenecks hamper the realisation of these rights in practice. The current legislative framework relating to public hospitals lacks proper integration and coordination. These are elements that are essential if we wish to achieve a well-functioning hospital system. There is therefore a need to improve coordination and integration. Minimum norms and standards are required to guide the delivery of hospital services with respect to staffing, facilities, equipment and other aspects that affect the provision of quality care. Norms and standards exist for PHC (clinics and community services), but not for hospitals offering more specialised levels of care.

Public hospitals consume approximately half the total provincial allocation for health services. However, there is very little confirmatory evidence of the impact of these allocations. At present, hospital budgets are determined according to different methodologies across the various provinces. Budget allocations for public hospitals need to be set and overseen in a consistent manner across all provinces.

Lastly, the international review of hospital management practices suggests that the organisational form of hospitals is an important determinant of performance. In addition, evidence suggests that reforms aimed at granting hospitals more independence may lead to greater efficiency gains and better performance. South African literature points out that the present location of functions and responsibilities between provincial health departments and public hospitals is not clear, thus negatively impacting service delivery.

To conclude, with respect to hospital management, the Commission observed that there is a need to investigate whether authority for rendering hospital services should be devolved entirely to autonomous institutions. The establishment of autonomous hospitals might need to be combined with the implementation of a governance configuration and the requirements of good corporate governance. Devolution of authority would need to be phased in along with enhanced mechanisms for managerial accountability, such as performance management systems and monitoring and reporting systems. Further work needs to be done to review international best practice and its relevance to the South African context.

4.5.2 Recommendations

With respect to the performance of public hospitals, the chapter recommends as follows:

1. The chapter recommends that there be legislative provisions and norms and standards to ensure a well-functioning public hospital system with respect to

- Minimum service requirements, input and output norms
 - The establishment of governance norms and standards
 - The establishment of a workable quality assurance framework and a transparent reporting system
 - There being an implementable and auditable strategic planning framework which outlines the medium to long-term vision of the hospital system
2. It is recommended that Government standardise and institutionalise budget formats and processes for public hospital systems. Consideration needs to be given to:
- Setting individual hospital budgets on the basis of
 - agreed set of services in line with the unit cost per service;
 - A thorough consultation between the province and the hospital;
 - Case-mix
 - differentiating allocations by hospital type

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4.6.2 List of other publications produced by project

Annual Submission for 2010/11 Division of Revenue

Chapter 5: Funding and Delivery of Housing: Rental Housing

5

Sabelo Mtantato and Sasha Poggenpoel (Financial and Fiscal Commission)*

5.1. Background

One of the most basic needs of any community is housing. Housing represents a fundamental component of quality of life as it provides shelter. According to Kissick et al. (2006), the world is facing a global housing crisis with almost 1 billion people in cities around the world living in sub-standard housing without clean water and adequate sanitation. Apart from the people living in sub-standard houses, homelessness, the issue of people who have been displaced is still a challenge that needs to be addressed by public housing systems.

In South Africa, the right to housing is enshrined in Section 26 of the Bill of Rights, which states that “Everyone has the right to have access to adequate housing...” and “The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right” (Republic of South Africa (RSA), 1996). Since 1994 the government has made remarkable progress with the provision of housing, especially for poor households. However the housing backlog persists. In addition to the legacy of apartheid, the housing backlog is exacerbated by a combination of factors such as increases in population, increasing unemployment and declining household sizes.

Since 1994, the South Africa government has introduced a number of interventions aimed at speeding up housing delivery, especially for the poor. To date, however, adequate supply and proper housing for low-income people remains unresolved in many South African cities. Developing a policy framework and funding instruments to assist in the provision of rental housing opportunities represents a key government intervention aimed at assisting those individuals who, for some reasons, are not opting for ownership or require short-term accommodation. In addition, one of the government’s key objectives is to eradicate informal settlements in South Africa. Rental housing represents a central component of the plan aimed at speeding up housing delivery, thus assisting in the eradication of informal settlements.

The rental housing market is viewed as being able to significantly assist in providing adequate accommodation for the poor, offering choice and mobility, and opportunities for those who either do not qualify for ownership subsidies, or are unwilling to own for various reasons. There is a general consensus that a housing system that functions well needs to have a good balance between ownership and rental opportunities. Presently, this is not the case in South Africa (Department of Housing, 2005). The 2005 Social Housing Policy for South Africa highlighted an imbalance between ownership and rental in the housing sector. The challenge is that relative to international standards, people in South Africa prefer to own houses as opposed to renting. This highlights the importance and the need for accelerated rental housing delivery in the context of government’s intention to generally promote the scale of housing delivery. The skewed preference in the delivery, ownership and occupation of houses needs to be addressed.

* The authors would like to extend their gratitude to Ms Odette Crofton of the National Department of Housing as well as all Social Housing Institutions who gave of their time to meet with the Financial and Fiscal Commission and whose input has enriched this report. Special mention must be made of The Social Housing Company (Heather Maxwell and Margaret), Own Haven (Andrew Wiseman), Madulamoho (Renier Erasmus) and Johannesburg Housing Company (Carel de Wit and Ayesha Rehman).

5.2. Objectives

The proposed primary objectives of this study are as follows:

- To assess the current funding framework for rental housing and policy;
- To assess bottlenecks and limitations that are hampering the delivery and development of the rental market in South Africa;
- To assess the extent to which proposed policy and funding reforms will adequately address the aforementioned bottlenecks and limitations; and
- To put forth policy and/or funding-based recommendations aimed at improving the delivery/performance and/or monitoring and evaluation of social housing in South Africa

5.3. Methodology

To attain these objectives, an analysis of legislation and policy pertaining to rental housing was carried out. Interviews were held with the National Department of Housing (NDoH) as well as with some Social Housing Institutions (SHI).

5.4. Key results and discussion

5.4.1 Rental housing in South Africa

5.4.1.1 Demand for rental housing

To understand the demand for rental housing requires an understanding of the characteristics of the different groups of people that need this type of housing. According to the Department of Housing (2005), groups that require rental housing include:

- people who have invested in the rural areas but are currently working and earning an income in the city,
- contract workers who follow work to different locations,
- vendors who cannot afford to return nightly to their permanent residences,
- people who cannot afford inner city residential property prices,
- individuals excluded from subsidy assistance;
- people renting in the informal settlements as this is the only rental option available and affordable to them;

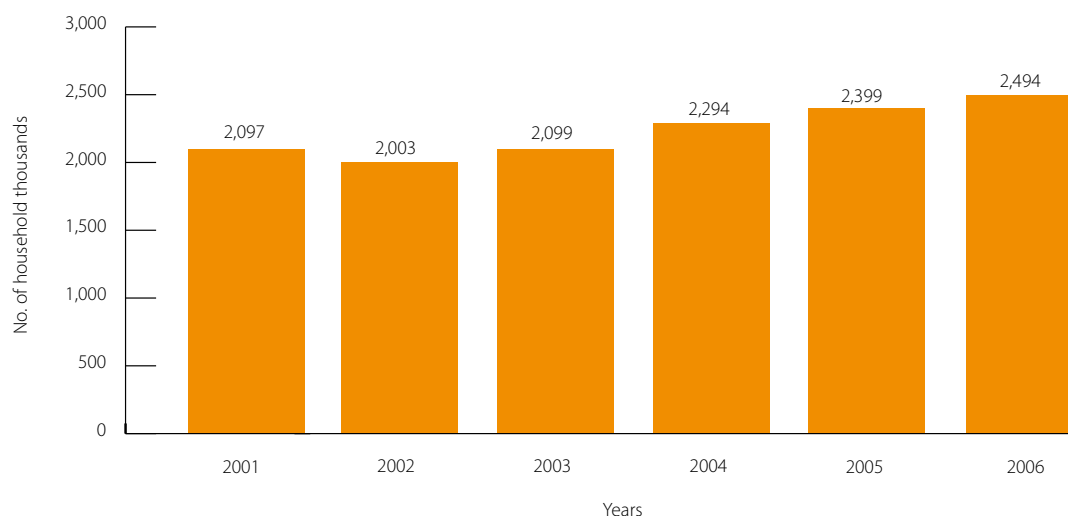
To cater for these different groups, a wide product range is needed. In 2008, the Social Housing Foundation (SHF) published findings of a study on the supply and demand of rental accommodation in South Africa (SHF, 2008). It revealed that there is a significant shortage of rental accommodation country-wide, especially in large urban areas.

The SHF report estimates that the rental market accommodates about 20 percent of households in South Africa. Of those that are renting, approximately 43 percent of households could be considered to be living in slum¹ conditions (SHF, 2008). The report notes that data collected from various providers in inner city dwellings in Johannesburg, Pretoria, Durban, East London and Port Elizabeth indicate high levels of demand. The demand for rental housing is driven by approximately 51 percent of individuals who rent and earn between R1 500 and R7 500 per month and 27 percent by those who earn below R1 500 per month. These income categories fall within the social target market of the state's rental housing interventions (SHF, 2008).

Data from the General Household Survey (GHS) indicates that there has been a continuous increase in the number of households that are renting between 2001 and 2006 (SHF, 2008). This is depicted in Figure 24 below, where the number of households renting has increased by approximately 5 percent between 2001 and 2006.

¹ A slum household is defined as a group of individuals living under the same roof lacking one or more of access to improved water, access to improved sanitation, sufficient living area, and durability of housing and security of tenure (SHF, 2008).

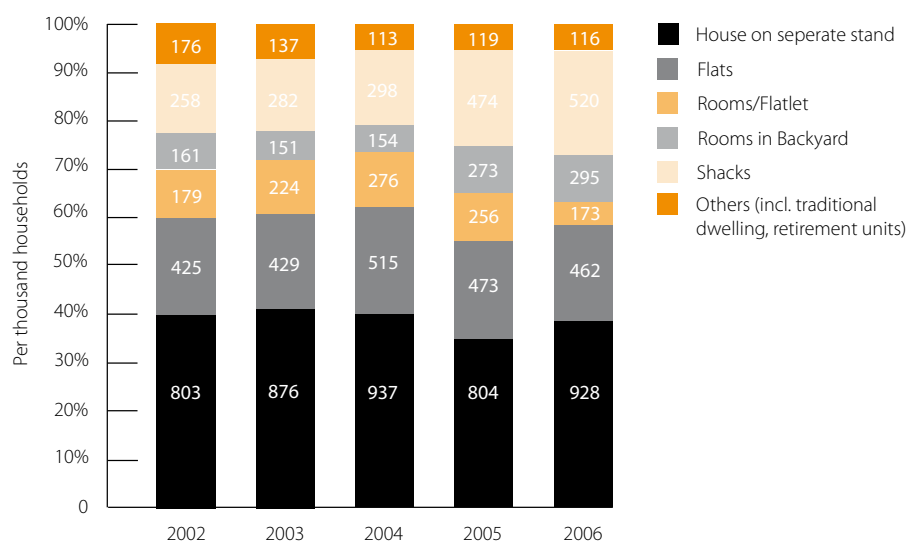
Figure 24: Households renting over time



Source: Social Housing Foundation (2008) – Figures extracted from the Statistics South Africa General Household Survey 2002, 2003, 2004, 2005 and 2006.

The data presented in Figure 25 shows that the percentage of households with houses on separate stands has been declining since 2004. This trend has been associated with an increase in backyard dwellings. This could be an indication that the formal rental sector has not kept up with increased demand for rental housing. As a result most households opt for shacks and backyard dwellings.

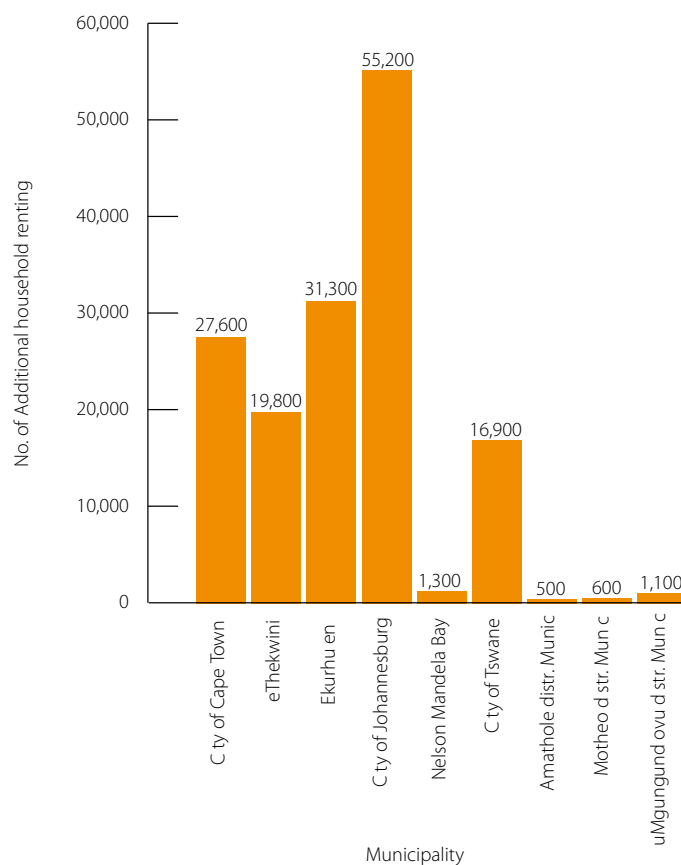
Figure 25: Rental dwelling type over time



Source: Social Housing Foundation (2008) – Figures extracted from the Statistics South Africa General Household Survey 2002, 2003, 2004, 2005 and 2006.

The GHS provides projections of additional households renting in bigger cities over the period 2005 up until 2012. This is depicted in Figure 26.

Figure 26: Projected additional households renting – 2005 to 2012



Source: Social Housing Foundation (2008)

The projections above indicate that the demand for rental accommodation is likely to increase across municipalities although the extent differs from municipality to municipality. Ekurhuleni and City of Johannesburg have the highest growth projections of demand for rental accommodation.

5.4.1.2 Supply of rental housing

According to the GHS data in Figure 25, growing demand for rental housing is primarily addressed through shack and backyard dwelling-type opportunities. This is likely to be an indication that the demand for formal rental housing outstrips its supply. Responding to this challenge the NDoH has devised the Community Residential Units (CRU) Programme and the Social Housing Programme (SH) as key mechanisms to address supply of rental housing. Characteristics of these programmes are summarised in Table 43. Essentially, the CRU Programme is a pure public sector intervention that is totally state-funded, whilst the SH Programme represents a public-private partnership approach between government and other non-government organizations².

² Non-government organizations include SHIs which are organizations for non-profit, profit making organizations as well as commercial banks.

Table 43: Key attributes of the CRU and SH programmes

Community Residential Units Programme	Social Housing Programme
-correcting historical problems with public housing and hostels	-private sector-for profit and non-profit sectors mobilised to supply affordable rental
-coherent framework for public housing and hostels	-cross-subsidisation
-indigent groups and low income groups	-mobilising private funders
-stabilising market and housing environments	-restructuring objectives
-addressing slum landlords	-lower and middle income target market
-affordable formal rental housing option for informal tenants	-object subsidy
-object subsidy	

Source: Department of Housing, undated.

The CRU programme targets individuals earning between R800 – R3500 per month while the SH programme targets individual earning between R1500-R7500 with quotas for households earning between R1500-R3500. The Department of Housing's proposed National Housing Rental Strategy states that the objective is to deliver 100 000 rental housing units over the next five years commencing from 2007/08. The 5-year rental housing target according to delivery mechanism is shown in Table 44.

Table 44: National targets for CRU and SH programmes

Total Rental Units and Investment			
Units	2007-2012	2007-2015	2007-2021
Social Housing	75,000	149,792	299,377
CRUs	25,000	56,690	120,070
Total Rental Units	100,000	206,482	419,447

Source: Department of Housing, undated.

The 100 000 rental housing units target is distributed across all provinces with Gauteng province having the biggest share based on the projections of future demand for rental accommodation as shown in Figure 26.

5.4.2 Policy developments and legislation

5.4.2.1 Policy

Social housing is one of the key thrusts of the overall housing strategy in South Africa. The South African Social Housing Policy was formulated to:

- contribute to the national priority of restructuring South African society so as to address structural, economic, social and spatial dysfunctionalities. It also intends to contribute to government's vision of an economically empowered, non-racial and integrated society living in sustainable human settlements, and to
- improve and contribute to the functioning of the housing sector and widening the range of housing options available to the poor.

The policy also intends to address some key challenges identified in the sector, namely that:

- the funding framework and institutional subsidy have not been designed to promote the production of medium to higher density housing and have made inadequate provision for operating and management costs;
- the parameters of the housing approach were too tight to allow for the provision of social housing to poorer recipients;
- capacity building focused largely on educational and training initiatives and the pre-establishment phase of SHIs, instead of on project packaging, project implementation and operation skills needed to run rental housing institutions;
- there is no agency to address governance and management capacity issues that were evident in some SHIs;

- due to financial pressures and subsidy constraints, there has been a movement away from the low income market into the middle income markets and thereby distorting the market by competing with private sector players, who do not receive state subsidies.

5.4.2.2 Legislative and regulatory environment for rental housing

Until recently, the social housing sector was guided and governed by a range of policies and legislation including the Companies Act no. 61 of 1973 (section 21), the Public Finance Management Act of 1999, the White Paper on Housing, 1996 and the Rental Act 50 of 1999. The absence of legislation specific to social housing has complicated matters such that legislation is applied by borrowing from related legislation on a case by case basis. The Social Housing Act (SHA) (No. 16 of 2008) enacted in November 2008 is a new development and its central aim is to address the gap in legislation on social housing by providing a legal framework for the regulation of the social housing sector (Department of Housing, 2007).

The SHA seeks to define the roles and responsibilities of the different spheres of government and other key role players, establish a Social Housing Regulatory Authority (SHRA), address issues around the process of municipal accreditation, and give clarity about the functioning and management of SHIs. Apart from the SHRA other stakeholders include SHF, Rental Housing Tribunals, municipalities, provinces, national government and Social Housing Institutions³.

Before the enactment of the SHA, the Rental Housing Act No. 50 of 1999 (RHA) was already in place. The RHA however is silent on a number of issues pertaining to the development of rental housing, for example, the establishment and accreditation of SHIs and an agency to regulate and overlook the sector. These have been addressed by the SHA.

5.4.3 Funding rental housing

The CRU and the SH Programmes are two key interventions to deliver rental housing in South Africa. Table 45 details the planned number of units and funding for the CRU and SH programmes over the period 2007 to 2021.

Table 45: Rental housing target by programme type and funding

Total Rental Units and Investment			
Units	2007-2012	2007-2015	2007-2021
Social Housing	75,000	149,792	299,377
CRUs	25,000	56,690	120,070
Total Rental Units	100,000	206,482	419,447
Funding and Investment	2007-2012 R'Million	2007-2015 R'Million	2007-2021 R'Million
Capital Restructuring Grant	6 479	15 221	43 525
Provincial Top Up	3 667	8 062	19 531
CRU Subsidy	4 587	11 425	28 356
CRU Maintenance	-	-	-
Total Government Grants & Subsidy	14 734	34 708	91 412
Social Housing Equity Fund	3 134	8 771	31 317
Social Housing Senior Debt	2 998	7 116	17 862
Private Sector Debt and Equity	5 177	11 230	31 888
Total Funding and Investments	40 776	96 533	263 891

³ The SHRA will take over the functions of Social Housing Foundation and it will accredit SHIs, ensure compliance, maintain a register of accredited SHIs, coordinate training and capacity building programmes, ensure good governance and sustainability of the SHIs, and advise the Minister of Housing on developments in the sector. Rental tribunals provide dispute resolution to tenants and landlords. Municipalities facilitate the delivery of social housing in the areas of their jurisdiction; encourage the development of new social housing stock, upgrading existing social housing stock, providing access to land and buildings, municipal infrastructure, identifying restructuring zones, etc. Provinces ensure fairness, equity and compliance with national and provincial norms and standards, protection of consumers, mediate when conflict arises between SHIs and municipalities and monitor social housing projects and develop capacity within municipalities. National government creates and upholds an enabling environment for social housing, ensure compliance with its constitutional responsibilities, address issues affecting growth and development of social housing, fund the social housing programme, determine norms and standards, etc. SHIs acquire, develop and manage approved projects for low income residents, re-invest operational surpluses in further approved projects, inform residents of their rights and responsibilities consult municipalities to develop social housing stock, seek permission for any merger or separation of social institutions and any changes in lease agreements.

5.4.3.1 Funding for CRU programme

The CRU Programme replaces the Hostel Redevelopment Programme and places emphasis on lower income persons. Presently it is funded by provincial governments through the CRU Capital Subsidy. The CRU Capital Subsidy covers the capital cost of the project and future long-term maintenance costs. The stock used under the auspices of the CRU Programme must be owned either by a provincial housing department or a municipality. Funding for the CRU Programme flows to provincial housing departments through the housing equitable share component. Funding then either stays within the province or is allocated to the relevant municipality. This decision is determined by who owns the property in question. From this point, funding flows directly to the project. This is depicted in Figure 27. This intervention is new and is still gaining momentum. Furthermore, the structure of most provincial housing budgets (which do not disaggregate down to sub-programme level) do not allow for a proper budget analysis of this programme.

Figure 27: Flow of funding between key role-players within CRU Programme



5.4.3.2 Funding for social housing programme

One of the core objectives of recent developments in the rental housing market, crystallized in the Social Housing Policy, is to effectively reach the poor. The terminology used to describe this objective is referred to as 'deep, downmarket reach'. In the rental market, the type of project is defined as one that charges a rental fee falling within the R500 to R1166.66 per month range (implying a monthly income of between R1500 and R3500 if one third of income is used for rent). Another objective is to ensure the development of balanced communities in socio-economic terms (Department of Housing, 2005: 34).

This signals a shift away from the view that people falling within similar socio-economic circumstances should live in the same area, thus moving towards a more integrated approach. In order to achieve its objectives, the NDoH has adopted a mixed-income rental housing approach which entails attracting people from both ends of the income spectrum (high and low). The intention is that a significant portion of rentals will be taken up by beneficiaries falling within the deep, downmarket reach range combined with beneficiaries able to pay higher rentals. This strategy makes provision of housing opportunities for the poor whilst also ensuring an aspect of continuity and sustainability in that higher rentals will also be charged for those who can afford to – all within a single project.

Originally, social housing for rent was financed primarily through the Institutional Subsidy. This was the only subsidy available for financing social housing projects. The process of restructuring has necessitated the creation of additional financing mechanisms aimed at entrenching the principles underpinning the reform process. As a result, the Social Housing Restructuring Capital Grant (SHRCG) was established. This grant provides funding to approved social housing projects within Designated Restructuring Zones (DRZs)⁴. It is also envisaged that the following grants will be established to assist SHIs in becoming viable institutions that manage viable projects:

- **Staff Gear-Up Grant** - This grant is intended to assist SHIs in capacitating themselves prior to the commencement of projects but is not aimed to assist ailing institutions. The point at which this grant can be applied for is once an institution has been approved to receive SHRCG and is about to commence its **first** project. The grant may not exceed 33.3% of staff operating costs.

⁴ Designated Restructuring Zones - Buffalo City Municipality, Ekurhuleni Metropolitan Municipality, Ethekwini Municipal Authority, Cape Town Metropolitan Municipality, City of Johannesburg Metropolitan Municipality, Mangaung Local Municipality, Msunduzi Local Municipality, Nelson Mandela Metropolitan Municipality and City of Tshwane Metropolitan Municipality.

- **Project Acquisition and Feasibility Grant** - This grant is aimed at ensuring that projects identified and submitted for consideration for the SHRCG are properly investigated and designed. This grant provides support for conducting a feasibility analysis.
- **Pre-Accreditation Grant** - This grant is aimed at assisting SHIs and co-operatives in setting up a governance structure, establishing capacity to apply for accreditation and managing a project. It can also be used to aid the setting up of an office and drawing up a business plan. The grant amount may not exceed R25 000.
- **General Capacity Building Grant** - This grant has two components: ad hoc grants and programme-related grants. They are aimed mainly at building professional knowledge and innovation development of the sector.

The institutional subsidy was previously used to finance all social housing projects and this has changed since the introduction of the SHRCG. Currently, the Institutional Subsidy finances those projects falling outside of the DRZs. A key challenge with respect to this grant is the lack of assessment with respect to project viability. The SHRCG on the other hand finances projects that fall within DRZs but is not intended to cover all costs of the project. The balance of funding required to complete the project is to be sourced from other avenues of funding such as, for example, debt (given that commercial debt funding is allowed) (Department of Housing, 2005:36).

Key considerations determining eligibility for accessing the SHRCG are: whether or not a social rental development is located within a designated restructuring area and the extent to which the development achieves “deep, downmarket reach”.

The SHRCG consists of a standard component⁵ and a top-up (variable)⁶ component. In determining eligibility for the grant Quick Scan A, B and C assessment tools have been established. Quick Scan A assesses governance and financial performance of the SHI. Quick Scan B assesses project readiness to proceed on-site. Quick Scan C assesses the project’s financial sustainability. It appears then that there are more processes in place to ensure viability of projects under the SHRCG as opposed to the Institutional Subsidy.

5.4.4 Factors hampering delivery and development of rental housing in South Africa

The SHIs have highlighted a number of factors that impact negatively on the delivery and development of the rental market in South Africa. These factors pertain to the policy and regulatory environment, funding and institutional factors. A number of the limitations and challenges mentioned below have been corroborated by the SHIs themselves. The severity and negative impact of some of these challenges have informed the recommendations made later on. In addition to these factors some data and reporting issues are briefly discussed in sub-section 6.4.4, however, these are discussed to improve the availability and the quality of data and to ease the reporting within the sector.

5.4.4.1 Policy and legislation

a) Restructuring zones

Currently only those SH projects that fall within the DRZs are eligible to receive SHRCG. During the first phase of rolling out/piloting the newly established SHRCG, the NDoH together with some cities and provincial administrations have identified nine municipalities that are to be included in the first phase. Limiting access to SHRCG to social housing projects within the DRZ has the effect of limiting the delivery of social housing within these zones, even if SHIs have identified viable projects outside these zones.

b) Requirements for a social housing project to qualify for capital restructuring grant

One of the requirements for the project to qualify for the SHRCG is that the unit size should be at least 30m². While this requirement is suited to ensure that SHIs deliver rental units of adequate quality and size, especially for green-field projects, the guidelines fails to make suitable provisions for non-green-field (brown-field) projects. In some cases, SHIs buy old and derelict buildings where existing units are below this minimum size. These buildings require

⁵ The standard component is the portion that will be sourced from the National Department of Housing and administered provincially and it varies depending on the extent of deep down-market reach but a limit 70 percent.

⁶ The top-up component forms part of the equitable share allocated to provinces and may not exceed more than an amount equivalent to the institutional subsidy amount.

funding to be upgraded and the SHIs would struggle to raise their own without assistance from the government funding.

5.4.4.2 Funding

a) Disbursement of funds

A number of SHIs complain of the slow process involved in obtaining funding from Provincial Housing Departments. Some attribute the lag between project approval and disbursement of funding to lack of capacity within Provincial Housing Departments. In a project undertaken by the Financial and Fiscal Commission during 2007/08 regarding bottlenecks in the delivery of houses, the slow and overly bureaucratic manner in which resources flow between provinces and municipalities was highlighted as a key concern (Financial and Fiscal Commission, 2008).

b) Income targeting

The concern is that the income bands linked to the institutional subsidy were developed for a pilot programme some years ago and have not been adjusted despite increases in construction costs, as well as the cost of living resulting from inflation. In other words, the income bands have not been adjusted to the increasing costs of living over the past years and, by so doing, exclude some individuals who should qualify for a subsidy. In essence, in order to achieve policy goals and objectives, policies need to be adaptable. In this case in order to reach the target market, the income eligibility criteria of funding instruments should be reviewed.

5.4.4.3 Institutional

Rental housing projects and surrounding neighbourhoods

In light of the establishment of DRZs, social housing projects can be an important driver of urban renewal. A critical consideration is the location of a housing project – if projects are located in the middle of derelict neighbourhoods that are far from social and economic opportunities, the tenants (who will in all probability be low income) will be disadvantaged. Furthermore it is a concern that greater effort is not being put into improving intergovernmental coordination to ensure that various forms of complementary funding opportunities for social housing are leveraged so that holistic development occurs. This will ensure that housing initiatives do not occur in isolation to other important social and economic necessities that allow for the development of a strong and sustainable community. Streams of funding that could be more attuned to rental housing initiatives include for example, the Neighbourhood Partnership Development Grant and other urban renewal-type grants.

5.4.4.4 Data and reporting

a) Data

The GHS is an annual household survey conducted by Statistics SA. The GHS contains data on housing. Whilst the survey indicates the number of households which are currently owned or rented, thereby providing an indication of rental housing in general, it does not provide an indication of the demand or supply of social housing in particular. Additional questions need to be incorporated in the GHS to indicate whether the house is part of privately owned stock, social housing or another public institution. The GHS could be used to pilot whether it is feasible to include a question that would reflect the demand for housing together with other routinely collected data.

As stated elsewhere data are required on the number of qualifying applications received for subsidised housing units and the characteristics of those applicants. This data should be systematically gathered and monitored, if not for all social housing projects then at least for an indicative sample. The demand for housing depends on a number of complex factors where one of the most important is location. Housing should thus be planned to consider location factors amongst other factors such as water, electricity, transport and service delivery.

b) Reporting

During the study the team of researchers visited Social Housing Institutions in two of the provinces and asked questions regarding reporting requirements. During these visits it became apparent that the reporting requirements from donors, various departments and the Social Housing Foundation differ tremendously. The SHI's indicated that these different reporting requirements are burdensome and requires a person dedicated to reporting. Reporting requirements should therefore be reviewed collectively and streamlined to ensure that reports are as efficient and effective as possible.

5.5. Conclusions and recommendations

5.5.1 Conclusions

State provision of rental housing represents an intervention aimed at the provision of adequate housing or shelter especially for lower and middle income groups who cannot afford to buy homes. One of the most important characteristics of rental housing that makes it distinct from other forms of public housing programmes is that in order to be eligible to rent, potential tenants must have stable incomes, that is, be able to cover the rental charged.

There are a number of factors that hamper the speed and further development of the rental housing sector. These factors can be grouped in three categories, namely: (1) policy and regulatory environment, (2) funding and (3) institutional arrangements. There are also recommendation that relate to data and reporting.

5.5.2 Recommendations

Based on the above analysis, the Financial and Fiscal Commission recommends that:

1. There should be relaxation and flexibility on the:
 - a) eligibility criteria for accessing the Social Housing Capital Restructuring Grant to allow projects falling outside the Designated Restructuring Zones to access funding;
 - b) number of Designated Restructuring Zones to respond to excess demand for rental housing;
 - c) minimum unit size for redevelopments of existing buildings.
2. The process of disbursing funds for rental housing within the housing sector should be made shorter to minimise time lags following the submission of approved project plans.
3. The Social Housing Regulatory Authority should improve the inter-sectoral coordination between various government departments responsible for integrated human settlement.
4. The qualifying income bands should be reviewed to ensure that individuals are not unfairly excluded from benefiting from the subsidy (due, for example, to increases in the cost of living).
5. Questions should be incorporated in the General Household Survey with regard to the Social Housing programme and public rental housing.
6. Data about the number of qualifying applicants and their characteristics albeit as a sample should be collected systematically to facilitate spatial analysis.
7. It is proposed that reporting requirements should be standardized right through to ensure that the right information is reported without burdening the SHI's unnecessarily.

5.6. References

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5.6.2 List of other publications produced by project

Annual Submission for 2010/11 Division of Revenue

Chapter 6: Management and Financing of Road Infrastructure

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6.1. Background

An important aspect of investments in public socio-economic infrastructure includes the financing and development of a national transport infrastructure and network. A well-developed and modernised transport network is necessary for the efficient functioning of any economy, it creates economic opportunities, facilitates the movement of people, resources, outputs to industries and markets and enables people to access social services (Solomon, 1983).

Decades of under-investment in road maintenance and management, relatively inappropriate user costs, significant capacity constraints, and considerable increase in the volume of road transport usage has resulted in an estimated 35% of South Africa's total road network condition being rated as being 'poor' or 'very poor'. The South African Institution of Civil Engineering (SAICE) in its 2006 study of assessing the built environment infrastructure in South Africa, graded the national road infrastructure at C. This meant that most of the road infrastructure was in a fair to good state, while provincial and municipal road infrastructure were graded D, i.e. many were in a poor condition.

Under-investment in maintenance coupled with deteriorating condition of many of our country's provincial and municipal road networks have significant economic and social costs. According to the South African National Roads Agency Limited (SANRAL), delays of up to three to five years in road maintenance, increases the repair costs by between six to eighteen times the normal cost. Subsequent decreases in road quality also have adverse effects on road users. The South African Roads Federation (SARF) estimates that failure of the road network, both in condition and its ability to cope with increased demand, imposes an estimated additional R20 billion per year in road user costs (fuel consumption, tyre wear, vehicle maintenance), and up to ten times more in congestion costs (SARF, 2009). In the major urban centres, competition (between industrial, public and private road users) has resulted in increased traffic congestion, contributing to the relocation of business activities from inner cities to the outskirts, further increasing the cost of fuel and transportation for many South Africans. For rural communities, the very poor state of many municipal access roads (including un-proclaimed roads) have contributed to soaring vehicle operation costs and, more significantly, hampered the ability of communities to access services in key health and education sectors (Financial and Fiscal Commission, 2007).

There is widespread appreciation that demand for road infrastructure in South Africa will continue and this is evident from a number of large scale projects currently in place. Furthermore, policy statements emanating from the Department of Transport suggest that future delivery of road transport infrastructure will for the most part, be funded via the application of the 'user-pay' principle. This thus necessitates the need for a comprehensive assessment of available tax options in generating revenues from the utilization of road infrastructure. While a number of studies have either examined the economic impact of infrastructure¹ or the coordinating mechanism of infrastructure expenditure initiatives, very little attention has been paid to assessing policy options for development of a financing framework. Such a framework will have to generate additional revenues to ensure sustainability of resources needed to provide and maintain an adequate level of road transport infrastructure.

* Authors would like to extend their gratitude to their fellow researchers within the Financial and Fiscal Commission for comments received during different internal engagements. Authors also like to thank all Commissioners for their contributions on the directions and shaping up of this paper.

¹ The pioneering work of the Development Bank of Southern Africa (1998) isolate the impact of infrastructure investment on South Africa's economic growth, while Perkins et al. (2005) analyzed long-term trends in the development of South Africa's economic infrastructure and the relationship of such infrastructure on the country's long-term economic growth.

6.2. Objectives

The primary aim of this paper is to show that improving the present set of road administration and funding arrangements could lead to a more efficient approach to dealing with key issues of backlogs and deterioration in South Africa's road infrastructure network. Through an analysis of the current funding and administrative framework for the delivery of road infrastructure in South Africa, this paper will try to extract lessons that could inform policies aimed at improving road finances and enhancing the capacity of authorities (especially at sub-national levels) to deliver and maintain an adequate road infrastructure network.

6.3. Methodology

In examining the management and financing of road infrastructure in South Africa, this study follows a mainly qualitative approach. The qualitative analysis is carried out in five key steps, namely:

- i. Outlining the evolution of the administration and financing of road infrastructure delivery in South Africa;
- ii. Examining current state of road financing arrangements and the delivery of road infrastructure;
- iii. Identify key issues of policy significance and discuss alternative approaches that can improve existing arrangements for delivering road infrastructure in South Africa;
- iv. Synthesizing the lesson learned from analysis conducted in (i) – (iii) above into a concluding remarks and a set of policy recommendations.

The study reviews local and international literature and best practices.

6.4. Key discussion

6.4.1 Financing and administration of roads

6.4.1.1 The pre 1994 dispensation

In the first decade following the formation of the Union of South Africa in 1910, roads development remained a responsibility entrusted to four provincial authorities namely; the Cape, Natal, Transvaal and the Orange Free State. Road infrastructure development was heavily localised, as construction was carried out by district and municipal councils/authorities using funds raised mainly from local taxes (such as property taxes) and matching grants/subsidies provided by provincial authorities. While there was an extensive use of loans, most of the loan amounts were utilised for the construction of bridges. Despite their best efforts, much of this funding proved inadequate, and with limited taxing powers, provincial authorities struggled to meet the rising demand for roads that were more suitable to increased motorised traffic.

Concerns over the slow pace of road infrastructure development and a need for formal road management structures resulted in the enactment of the National Roads Act of 1935. This legislation formally classified South Africa's road infrastructure into three types (national, provincial and municipal) and established the National Roads Board (NRB)

to develop a road grid connecting the country's major commercial regions and centres. The Act also created the National Roads Fund (NRF), which derived its primary income from a share of customs duty levied on every gallon of petrol imported into the Union (Solomon, 1983). As the Act was not enacted to encroach on the jurisdiction of the provinces, the NRB was granted no powers to proclaim roads or amend provincial road ordinances. Instead, the NRB functioned as an oversight body tasked with making decisions on which roads NRF should fund, while the actual construction, repair and maintenance of roads remained a provincial function.

Although the 1930s gold boom had fostered considerable improvements in the quality of road construction, the onset of the Second World War impacted negatively on the gains made in road construction during that period. By the end of the war in 1945, less than half of the targeted asphalt roads had been completed, most of which were located within the jurisdiction of national government. In addition, a shortage of funds within sub-national administrations, and tensions between the NRB and provincial authorities (mainly over the oversight and road classification functions of the board), had exacerbated backlogs in the development of targeted road infrastructure at sub-national level. In a bid to address these issues, the Transport (Coordinating) Act of 1948 was passed into law

and the NRB was replaced by the National Transport Commission (NTC). Though the NTC's powers mirrored those of the NRB, one major distinction was that the Transport (Coordinating) Act afforded provinces a greater role in the formulation and implementation of policies related to road infrastructure development.

By 1961, the NRF had been relieved of any obligations to repay loans incurred by provincial administrations in the construction of roads prior to 1935. In addition, the NRF's primary source of funding was expanded to include a tax on all motor vehicle fuels (i.e. both imported and locally produced petroleum products), furnace oil and paraffin. Freed of debt obligations and boosted by substantial revenue flows, the NTC managed to complete over 90% of the original road scheme conceived in 1935, expand rural road infrastructure and construct a network of urban freeways in the country's major cities (notably Johannesburg, Cape Town, Durban and Port-Elizabeth). By end of the 1960s, strong economic growth had resulted in a phenomenal increase in the demand for motorised transport, creating a need for significant upgrades and reconstruction to meet the standards required by modern traffic. In the NTC's view, this outcome could only be attained if provinces had limited influence in the planning of national roads and there was a reduction in its obligations to construct local and special roads. Legislative support for this vision led to the enactment of the National Roads Act of 1971, which effectively ended the partnership of the central and provincial authorities in the sphere of road development and maintenance (Floor, 1984).

With enabling legislation and finance streams, the NTC focused on developing a road infrastructure programme aimed at providing South Africa with a well-developed national roads network and its first system of dual carriageway freeways. However, the fuel crises of 1973-1974 and 1978-1979 created significant uncertainty around incomes accruing to the NRF, negatively impacting on the NTC's commitment to undertake modern road infrastructure projects. By the mid 1980s, the country's international isolation, and prioritisation of programmes related to national defence and alleviating the effects of economic embargoes, further deepened the funding constraints faced by the NTC. As funding difficulties intensified, arguments were made for the share of the fuel tax allocated to the NRF to be substantially increased. However, the central government's unwillingness to part with a relatively important revenue source, and concerns about the inflationary effects of increased fuel taxes, prompted investigations by the NTC into the introduction of alternative funding sources. Consequently, the Second National Roads Amendment Act of 1983 was enacted, granting the NTC powers to introduce toll financing on selected roads.

By July 1987, the central government terminated the use of earmarked funding, effectively ending the existence of the NRF. In its place, funding for road building and maintenance would only be allocated from the central fiscus (Stander and Pienaar, 2002). Despite these measures, the years leading up to the democratic transition of 1994 were characterised by severe economic recession that virtually diminished resources available for funding any new investments in road infrastructure. Instead, road authorities placed more emphasis on the development of export-related freight movements, increasing mobility in metropolitan areas, and maintaining efficient and safe linkages between the major population centres of the country (Mitchell, 2002).

6.4.1.2 The post 1994 dispensation

The democratic transition of 1994 ushered in a phase of significant reforms and encompassed the political and socio-economic system under which South Africa would operate. The Constitution of the Republic of South Africa (1996) assigned public transport, road traffic regulation, and vehicle licensing as concurrent, Schedule 4A functions of the national and provincial spheres. Provincial roads and traffic is an exclusive Schedule 5A provincial function, while municipalities are responsible for municipal airports (where relevant), municipal public transport, and municipal roads (Schedules 4B and 5B). In terms of assigned concurrent functions, the national Department of Transport (nDoT) mainly plays a facilitative and regulatory role that includes the development of policy and legislative framework implemented through provincial departments, local government and public entities. Table 46 gives a breakdown of the roads functions assigned for the 754 600 kilometres of roads and streets in South Africa. As per the table a bulk of these roads are administered by sub-national authorities.

Table 46: Total length of road infrastructure network in South Africa

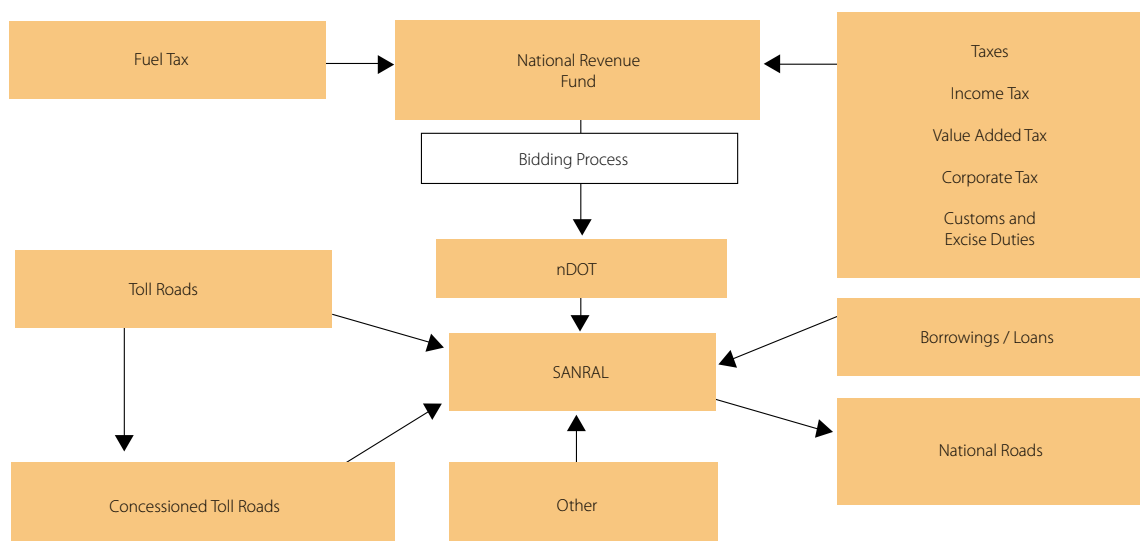
Type	Length in km
Surfaced national toll and non-toll roads	15 600 ²
Surfaced provincial roads	348 100
Un-proclaimed rural roads	222 900
Metropolitan, municipal and other	168 000
Total	754 600

Source: National Treasury – Provincial Budgets and Expenditure Reviews: 2002/03 – 2008/09

Compared to the pre-1994 dispensation, wherein the provision of road infrastructure was generally handled by a national agency in conjunction with provincial authorities, the current institutional arrangements has created different methods for delivering road infrastructure across the three spheres of government. At national level, the development, maintenance and management of roads are carried out on an agency basis by the SANRAL, while the traditional public service delivery model dominates the delivery of road infrastructure at provincial level.³ Under this arrangement, a specific provincial roads department is wholly responsible for routine and special maintenance of the road system. Most provincial roads departments have the internal capacity to design roads but outsource the actual construction, as does SANRAL. The traditional roads authority structure is used to provide and maintain road infrastructure at municipal level, with oversight activities usually provided by transport advisory boards or roads authorities administered by respective councils.

The funding arrangements related to the construction and maintenance of the country's road infrastructure network has changed significantly since the formalisation of the current system of intergovernmental fiscal relations in 1996. At the national level, funding comes from the national fiscus transfers, tolling and debt finance. Non-toll roads which make up 85% of the total national road network are funded via transfers from the national fiscus (see Figure 28). The remaining 15% of national roads consists of approximately 1 500km of infrastructure managed by SANRAL and 1 300km granted as concessions to private investors. Toll roads administered by SANRAL are self-financing as they are financed through revenues generated from user fee charges, while concessioned toll roads are managed through thirty-year agreements signed between SANRAL and concessionaires. In this regard, national toll roads are self-financing. In recent years, the need to alleviate enormous financial pressures, resulting from having to improve and expand an aging national roads network, has prompted SANRAL to seek additional funding from the capital market.

Figure 28: Sources of funds for the national (non-toll) road network



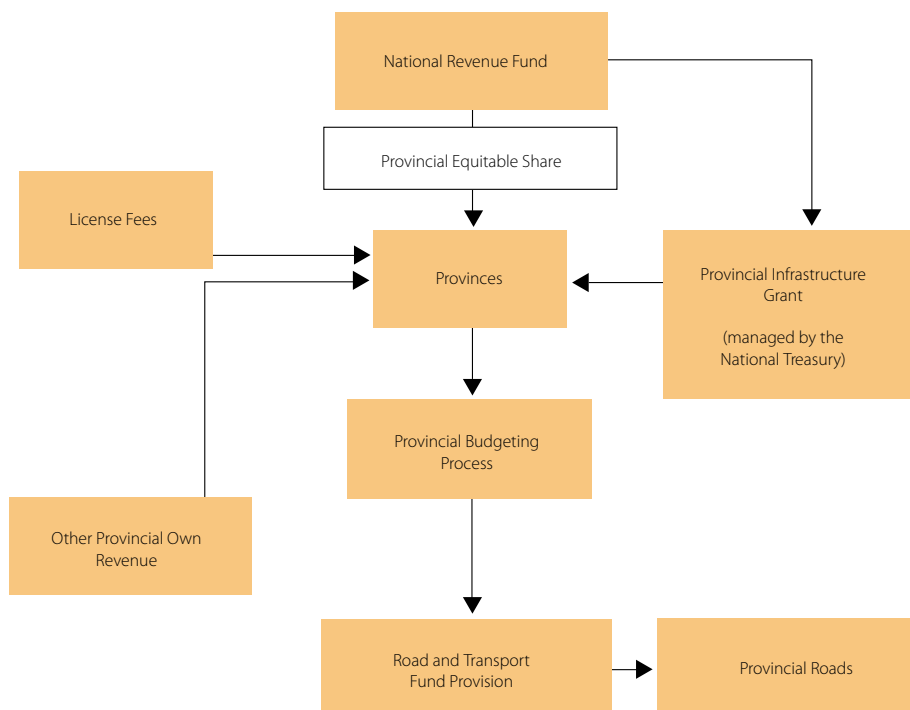
Source: National Department of Transport (2002).

For sub-national governments, there is no dedicated, explicit source for funding road infrastructure delivery. Instead, the provision of road infrastructure is part of an overall expenditure function of sub-national governments, funded mainly via intergovernmental fiscal transfers (see Figures 29 and 30).

² It is important to note that this figure has increased to 16 150km currently due to the incorporation of other provincial roads into the national road network.

³ Of the nine provinces, only the Limpopo province utilises a combination of traditional public service and road agency models.

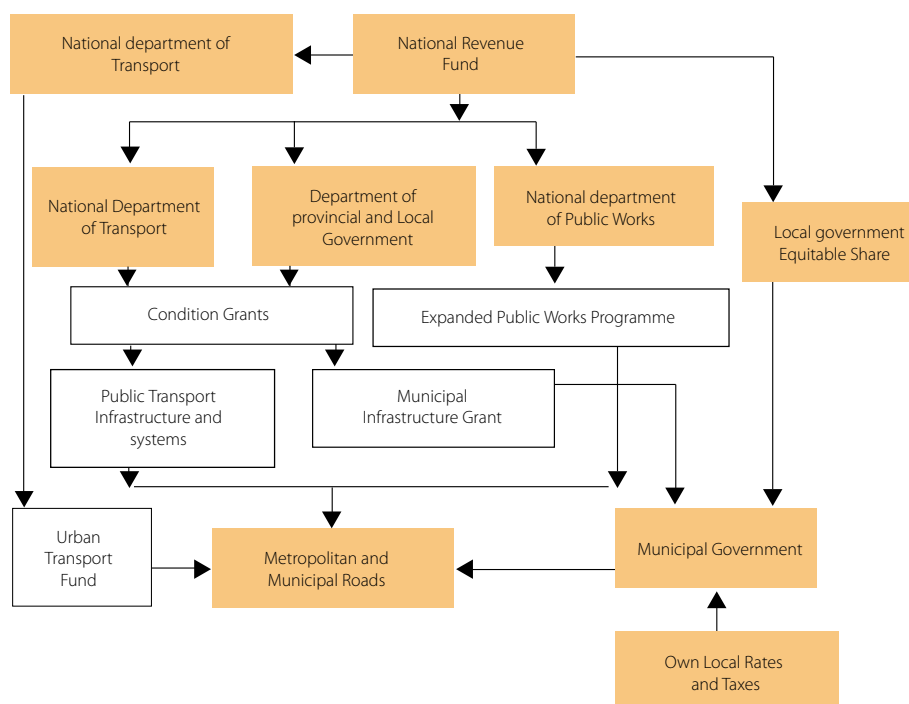
Figure 29: Sources of funds for the provincial road network



Source: National Department of Transport: Road Infrastructure Strategic Framework for South Africa (2006)

For provinces, non-conditional transfers in the form of equitable share allocations represent on average 95% of total revenues while the remaining 5 % income is derived from narrow-based tax sources that include motor vehicle licenses.. Based on specific priorities and budgetary imperatives, provinces have discretion in determining the amount of resources to be allocated from their total revenue pool towards operating and maintaining their road networks. A portion of the infrastructure grant to provinces (33%) is aimed at supplementing the provincial equitable share (PES) for roads construction and maintenance as per the provincial grant framework tabled with the Division of Revenue Bill. However, a key challenge of this arrangement is that it creates perverse incentives where rather than use the grant as a supplementary source of funding, some provinces tend to rely entirely on this grant in financing their road infrastructure programs.

Figure 30: Funding streams for municipal provincial road network



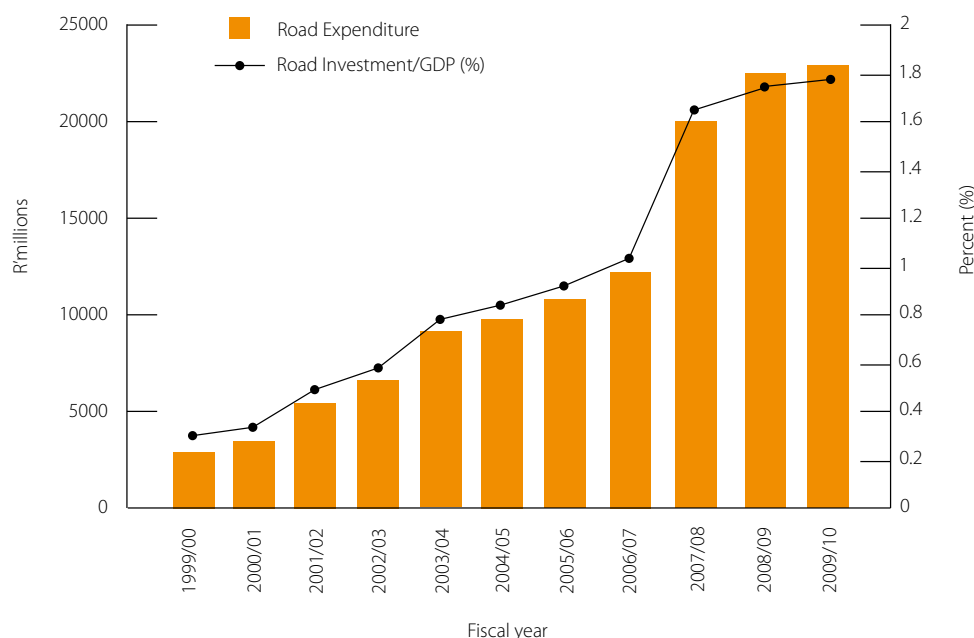
Source: National Department of Transport: Road Infrastructure Strategic Framework for South Africa (2002).

Like the provincial sphere, transfers from national and own revenues constitute a pool of funds from which municipalities are able to finance their road infrastructure operations. While a number of metropolitan and district municipalities utilise own-revenues to finance the delivery of road infrastructure, the majority of the country's 284 municipalities rely on three major conditional grant, namely: the public transport infrastructure and systems grant (PTIS); the municipal infrastructure grant (MIG); and the expanded public works programme (EPWP).

6.4.2 Key challenges in the current system of funding and administration

While the prudent economic policies implemented in the country's first decade of democracy led to relatively strong economic growth, significant infrastructure backlogs in key economic infrastructures (particularly electricity, rail and road sector) had become 'binding constraints' to government's stated goal of growing the economy at a rate that is able to enhance job creation and reduce high levels of poverty. In a bid to address the country's infrastructure bottlenecks, a comprehensive programme of expanding public-sector capital investments was initiated in 2005, under the auspices of the Accelerated and Shared Growth Initiative for South Africa (ASGISA). The high levels of capital investment have boosted spending on the country's road infrastructure. Since 2005, annual growth in road expenditure by the three spheres has averaged 24%. In absolute terms, investment in road infrastructure has more than doubled since 2000 and is expected to make up to almost 2% of GDP by 2010 (see Figure 31).

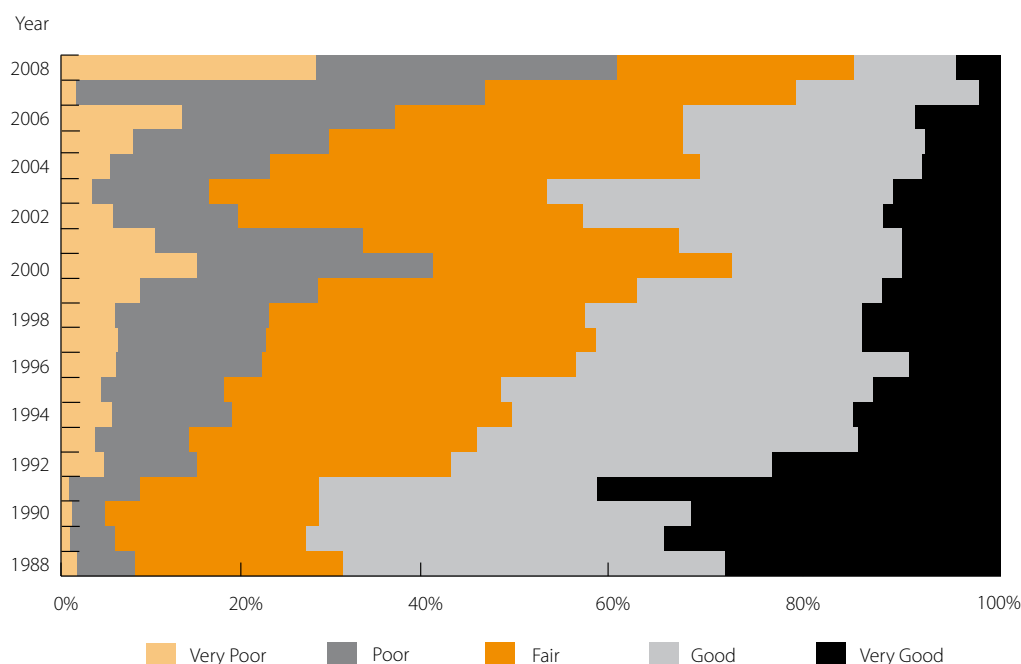
Figure 31: Road investment indicators, 1999/00 – 2009/10



Source: National Treasury Budget Review (various years); Reserve Bank Statistical Bulletin. Note: Road expenditure figures include all road expenditures by national, provincial and metropolitan governments as well as authorities in secondary cities.

Despite the scaling up of investments, a general decline in the condition of the country's roads persists. In a recent report on road conditions, it was noted that the number of roads categorised as 'poor and very poor' doubled between 1998 and 2008, while the number of roads categorised in 2008 as 'good and very good' was only a third of what was obtained a decade earlier (see Figure 32). In addition, the 60% of national and provincial roads in 'poor' and 'very poor' condition falls sharply off the international benchmark, that permits a maximum of 10% to be in such conditions (Automobile Association South Africa, 2008).

Figure 32: Condition of surfaced roads in South Africa, 1998 – 2008



Source: Automobile Association South Africa (AASA, 2008)

Two key challenges face the delivery of road infrastructure in South Africa, namely; inadequate financing (especially at sub-national spheres), and institutional arrangements (to deliver and manage road infrastructure).

6.4.2.1 Road financing arrangements

Funding arrangements are critical for the effective provision of roads. Where adequate and stable flows of funds are lacking, then road maintenance policies will not be sustainable (Heggie, 1995). The national road infrastructure under the administration of SANRAL is funded from two primary sources: revenues from non-tax revenues (mainly from user-charge fees imposed on tolled roads), and direct transfers from the nDoT. In addition, SANRAL is allowed to supplement its funding via loans secured in the capital market. Although SANRAL's initial participation in the capital market was limited by the National Treasury's principle decision to limit guarantees for SANRAL's loans to R6 billion. The granting of an independent credit rating in 2007 has enabled SANRAL to secure relatively significant funding, albeit at higher loan premiums.⁴ The granting of a credit rating has also allowed SANRAL to move from being a mere agency that structures public-private partnerships, to a roads utility capable of constructing, owning and operating road infrastructure in a sustainable manner.

At sub-national spheres, financing arrangements for roads are markedly different. At provincial level, funds for road maintenance are allocated as part of the budgetary process. Under this arrangement, each provincial department competes for funds during the annual budgetary process. In the absence of norms and standards for roads maintenance, provinces use their own discretion to allocate funds to this item. In the years following the post-democratic transition of 1994, the major part of allocations from PES revenues continued to be channelled towards reducing poverty and historical inequities. This resulted in a significant share of available funds directed at services with strong redistribution effects—education, health services, social welfare, and housing. Between the 2003/04 and 2007/08 financial years, provincial spending on social services made up 76% of total provincial expenditures; the remainder, 24%, was allocated to other provincial functions that included agricultural support to farmers, construction and maintenance of roads, and the financing of provincial administrations (see Table 47).

⁴ As part of a programme aimed at providing SANRAL with flexible funding options in the debt capital markets, the road agency in 2008 established a R10 billion Domestic Medium-Term Note (DMTN) programme. This programme forms part of a larger programme of placements aimed at raising about R44 billion by 2012.

Table 47: Comparison of roads expenditure against priorities

Local Government expenditure								
	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	TOTAL
R million	Outcome	Outcome	Outcome	Outcome	Medium-term estimates			
Capital expenditure	10,629	13,326	17,219	20,878	39,735	39,065	30,377	171,232
Water and sanitation	1,839	2,925	4,014	4,957	10,397	9,260	8,717	42,111
Electricity	1,267	1,599	2,295	2,724	4,426	4,255	4,063	20,631
Housing	658	718	658	1,269	3,892	4,586	4,220	16,003
Roads and storm water	1,774	1,750	2,516	3,221	5,535	6,466	5,012	26,278
Other	5,089	6,332	7,734	8,705	15,484	14,497	8,362	66,207
Metro roads infrastructure	1,372	1,626	1,440	1,571	2,502	2,890	2,345	13,749
Secondary city roads infrastructure	280	469	534	651	962	1,121	876	4,895
Metro roads maintenance	775	1,004	958	929	1,130	1,303	1,450	7,552
Secondary city roads maintenance	212	240	260	338	363	359	386	2,161
Provincial expenditure								
Roads infrastructure	5,761	6,340	7,553	8,795	10,382	11,814	13,400	64,045
Roads maintenance	2,386	2,617	3,115	3,550	4,066	4,884	5,416	26,034
Health	36,987	40,599	47,116	53,648	59,252	64,939	71,182	373,723
Social development	3,209	3,650	4,220	5,173	6,550	7,875	8,735	39,412
Education	60,255	64,670	71,981	78,963	88,719	98,505	107,327	570,420
Housing	4,563	4,629	5,067	6,549	8,238	9,853	11,531	50,430
National expenditure								
Roads infrastructure	1,293	1,450	1,783	2,382	3,498	4,175	5,630	20,211

Source: National Treasury: Provincial Budgets and Expenditure Review: 2003/04-2009/10, and Local Government Budgets and Expenditure Review: 2003/04 – 2009/10.

In 2001, the social sector bias of provincial budgets, coupled with a need to assist provinces to deal with infrastructure backlogs in education, health, and roads and agriculture, prompted the National Treasury to introduce the Infrastructure Grant to Provinces (IGP). Although guidelines related to the disbursement of IGP funds stipulate that 33% of available funds should assist in funding construction, maintenance, upgrading and rehabilitation of new and existing road infrastructure, provinces do not generally comply. Evidence suggests that they are spending at far lower percentages on road infrastructure because they prioritise other sectors.

Section 153 (a) of the Constitution mandates local government to give priority to fulfilling the 'basic needs' of their communities. Like provinces, this legislative imperative has resulted in most municipalities focusing their budgetary allocations on providing social services linked to water, electricity, sanitation, refuse removal and environmental health care because they are mandatory. Between the 2003/04 and 2007/08 financial years, average spending on road infrastructure amounted to less than 8% of total municipal spending. Most of the spending was undertaken by authorities in the major metropolitan areas and secondary cities respectively accounting for 60% and 30% of the aggregated municipal road infrastructure budgets. The paucity of resources for road infrastructure is even more telling for small municipalities; while small municipalities account for 10% of the total road infrastructure budget in the municipal sphere, many have road infrastructure budgets of less than R500,000.

6.4.2.2 Institutional arrangements for road infrastructure delivery

Globally, two key methods dominate the approaches to delivering road infrastructure. With the first approach, the traditional or departmental approach, road transport infrastructure is provided by a government department or agency (in most cases a public sector roads agency). Given that such a department/agency is largely or totally funded from the fiscus and is subject to ministerial directions, the autonomy of road agencies or departments in undertaking construction and maintenance projects is limited by the governance arrangements decided by the minister. The second approach, the output-based management approach, involves funding service providers on

the basis of agreed specific outputs. In this model, government decides on desired outcomes and then purchases specific outputs from competing providers in a competitive environment. Linked to the output-based management are performance-based contracts, which put more emphasis on contracting out road maintenance to reduce costs and improving road conditions so as to meet the challenges of financial constraints faced by authorities.

South Africa operates a mix of these two models. At national level, the main roads development and management organisation, SANRAL, is a dedicated road development agency with expertise and capacity in the management of road infrastructure. SANRAL's capacity ranges from having an independent; board of directors, dedicated specialist personnel, cash flow streams, planning, project management, and asset management systems. This capability affords SANRAL the ability to manage efficiently the national road network and continuously conduct research on new technologies that can be used to improve management of the national road infrastructure. In this regard, road delivery functions by SANRAL can be described as excellent (nDoT, 2002).

For sub-national authorities, the favoured public service delivery approach made the delivery of roads extremely variable. Eight of the nine provinces operate on a traditional road authority structure, with an exception of Limpopo which switched to a combination of the traditional road authority structure for its maintenance arm and a roads agency structure for the remainder of its functions. For the rest of the provinces, road infrastructure operations are handled by:

- i. Department of Public Works, Transport and Roads in the provinces of the Free State, Gauteng and Western Cape;
- ii. Department of Transport and Roads in the provinces of the Eastern Cape, Limpopo, Mpumalanga and North West, and
- iii. A Transport Department in the case of Kwazulu-Natal.

While the more narrowly focused functions of roads in provincial administrations helps overcome potential problems of cumbersome and ineffective management of roads, the major problem facing road management institutions is a shortage of professional managerial and technical skills (see Table 48).

Table 48: Summary of technical skills in provincial roads sector

Technical staff employed in roads and transport departments						
There is a severe shortage of technical skills, especially civil engineering skills in provincial departments of roads and transport. The results of a survey undertaken by National Treasury in 2006 in five provincial departments of transport (Eastern Cape, Free State, Gauteng, Limpopo and Northern Cape) show that:						
<ul style="list-style-type: none"> the technical sectors of provincial departments of transport are under-staffed; the average age of engineers is 50, so most senior engineers will be retiring in the next few years; the few remaining senior engineers available play a more managerial role, so the departments do not really benefit from their technical skills; in some cases senior engineers have to do junior level work because of the shortage of available young engineers. 						
Posts	8 or more years experience after university degree	Engineers 4-7 years experience after university degree	0-3 years experience after university degree	More than 8 years experience after qualification	Technicians 5-8 years experience after qualifications	0-4 years experience after qualifications
Filled	55	18	9	93	89	89
Vacant	58	68	21	21	102	167
Total	113	86	30	30	191	256
% filled	48.70%	20.90%	30.00%	30.00%	46.60%	34.80%
Vacancy rate statistics indicate that on average, each department has 11 senior engineers, about three younger engineers and two candidate engineers. Western Cape, Gauteng and KwaZulu-Natal are relatively well-resourced with senior engineers.						

The situation is even more acute within municipal jurisdictions. According to the National Land Transport Transition Act (Act No. 22 of 2000), each municipality is a planning authority tasked with ensuring that road delivery operations are carried out in an effective and efficient manner. However, very few municipalities have dedicated road authorities

and lack capacity to carry out road management functions.⁵ According to research undertaken by the SAICE in May 2005, of the total of 283 municipalities, 78 did not have civil engineers and 49 had only one civil technician. Although municipalities account for about a third of road sector employees, approximately 70% of these employees fall into the 'elementary' or 'semi-skilled' category (mainly labourers) while skilled personnel (mainly engineers) make up less than 9% of personnel (see Table 49).

Table 49: Estimated skill profile of municipal road-related human capital

Skill category	Split (%)
Legislators, senior officials and managers	0.3
Professionals	1.2
Technicians and associate professionals	7.0
Clerks	14.1
Semi-skilled workers	22.8
Elementary occupations	54.6
Total	100.0

Source: National Department of Transport: Road Infrastructure Strategic Framework for South Africa (nDoT, 2002).

The discussion above indicates that lack of critical technical skills has major implications for road management functions of sub-national authorities. Very few sub-national authorities have well-developed road management information systems while little or no studies exist on the assessment of road conditions.⁶ Without such key information input, many sub-national road authorities have very little quality information on which to base managerial performance evaluation and needs identification processes, further exacerbating the poor condition of available road network infrastructure. Furthermore, it also limits the ability of road authorities to generate and evaluate alternative ways of operating, improving, and extending the road network.

6.4.3 Addressing key challenges in funding and administration of road infrastructure

South Africa's road infrastructure remains the most developed on the African continent. However, years of under-investment in maintenance and rehabilitation have led to significant deterioration in the road network, particularly at sub-national levels. Current resource flows and funding arrangements are inadequate and insufficient to tackle an ever-increasing backlog problem and the increased demands placed on the country's roads. Further compounding the issue is the institutional arrangements relating to road service provision. A well-resourced and technically capable agency has ensured that the national road network remains in good condition, while the focus on social service delivery and lack of dedicated roads bodies at sub-national level has lowered the quality of road infrastructure within provinces and municipalities.

From the discussion outlined in the previous section, the main problems affecting South Africa's road infrastructure are financial and institutional. Solving these problems will require that policy-makers focus on two key issues: (i) boosting road finances by providing an adequate and stable flow of funds for road infrastructure; and (ii) improving the capacity of institutions tasked with managing the country's road infrastructure. The discussion that follows outlines these two issues in greater detail.

6.4.3.1 Adequate and stable flow of funds

Dealing with the roads challenge will require an increase in the amount of funds dedicated to funding of road infrastructure, particularly at sub-national level. Government needs to formulate pricing and cost recovery policy for roads geared at generating sufficient revenues for authorities to maintain and operate their road infrastructure network on a sustainable basis. A number of options exist in this regard. The use of charging instruments that are related to road use, easily recognisable, and separate from indirect and other service fees provide a potential revenue source. The use of such instruments already exists in South Africa in the form of the fuel levy and motor vehicle licenses.

⁵ To the best of the authors' knowledge, the only significant dedicated roads entity at municipal level is the Johannesburg Road Agency.

⁶ According to the nDoT, all provincial authorities used to carry out annual 'visual inspection index' studies but, in the decade prior to 2002, more than half had curbed or stopped such surveys. The same document noted that almost half of the municipal road authorities had non-existent road network information systems.

Earmarking a portion of road-related user charges and taxes paid into special road funds has been widely used in developed countries, such as the United States, New Zealand and Japan. This is used mainly to fund the construction and maintenance of road infrastructure. Over the last decade, countries such as China and India have introduced road-related charges that have provided a reliable stream of funds for road construction and maintenance (Postigo, 2008). Historically, the utilisation of a dedicated road fund and the earmarking of a share of taxes on fuel proved pivotal in modernising the country's road infrastructure and laying down the current system of roads in South Africa.

The National Treasury has previously opposed the setting up of a roads fund and earmarking road-related user charges on the basis that earmarking imposes undesirable rigidity on government expenditure decisions and should be discouraged. Given the magnitude of the road problem and the massive deterioration anticipated if current funding levels are not increased, government should re-examine the possibility of setting aside portions of road-related revenues and pooling such shares into a road fund dedicated to financing road infrastructure backlogs, especially at sub-national levels. The allocation of resources in the road fund can then be allocated between different road authorities at provincial and municipal level based on;

- i. a simple allocation formula,
- ii. an indirect assessment of needs, or
- iii. a direct assessment of needs to ensure that resources are allocated according to a thorough and objective assessment of road needs across the three spheres of government.

It could well be argued that such a proposal should take into account the fact that not all fuel consumption is related to road use and, given the current backlog levels, required expenditures for road infrastructure are generally likely to be larger than the earmarked amounts. In this case, government should give consideration to including explicitly a road infrastructure component within the provincial and local government equitable share formulae.

Beyond the two policy proposals outlined above, other avenues for increasing the funding of road infrastructure exist. As South Africa seeks to expand its arterial road network in major urban centres, attention needs to be given to examining the amenability of high traffic volume routes to toll exploitation. Additional funding can also be obtained through expanding the role of lending institutions specialising in infrastructure development and enhancing the capacity for sub-national governments to access capital from domestic financial markets. The poor financial state of many sub-national governments and the risks of borrowing for profligate spending have often been cited as factors that have impacted on the capacity of many sub-national authorities to tap into capital markets. However, an increasing role of provincial and local governments in infrastructure development, continued strengthening of regulatory accounting and management standards and careful oversight (by National Treasury together with specialised financial institutions such as the Development Bank of Southern Africa) offer a beneficial means for reconsidering restrictions on the ability of sub-national entities to source the funds for infrastructure investment in the capital market.

6.4.3.2 Institutional arrangements

Increased funding of South Africa's road infrastructure network cannot be effective without inputs of well-capacitated road authorities across the three spheres of government. Road bodies/agencies with prerequisite management and technical skills are vital to the management and sustainability of South Africa's road network.

It is acknowledged that the roads sector faces severe challenges with engineering skills, from professionals through to technicians and artisans, in short supply. If additional funding is to be allocated to infrastructure maintenance and rehabilitation, to ensure that the road network fulfils its socio-economic objectives, short-term strategies should be put into place to ensure that the roads sector will be able to operate at its best and that the development and maintenance of South Africa's road infrastructure will be able to keep up with the growing demand. This will require greater coordination of road management functions across the three spheres of government. To this end, the inter-road authority coordinating model proposed by the nDoT needs to be reviewed and modified for possible implementation (see Appendix A for details of the model). Unlike an intra-authority system set up to enhance the effectiveness of a particular road authority's management of roads within its area of jurisdiction, this inter-authority system coordinates activities between various road authorities at a strategic level. In this particular case, the coordinating body (consisting of the nDoT and extant road authorities in the nine provinces and municipalities) should be responsible for:

- developing a roads policy, norms and standards and guidelines on classification;
- implementing a needs assessment framework to assist the National Treasury in its allocations of road-related funding for road funding;
- developing an integrated management information system in line with section 6(1) of the National Land Transport Transition Act of 2000.
- developing a standardised monitoring and evaluation framework for road infrastructure; and
- formalising arrangements for technical and professional collaborations between SANRAL and sub-national entities lacking in technical and managerial aspects of road infrastructure management and development.⁷

Finally, with the full realisation of the potential benefits of improved funding for road infrastructure, maintenance and rehabilitation likely to be hampered by the lack of technical skills in the road sector, allocating conditional grants for building road management capacity can help assist in addressing the most urgent skills deficit in sub-national road management sectors, and also maintain or broaden skills base.⁸

6.5. Conclusions and recommendations

6.5.1 Conclusions

Increased funding of South Africa's road infrastructure network cannot be effective without the inputs of well-capacitated road authorities across the three spheres of government. Road bodies/agencies with prerequisite management and technical skills are vital to the management and sustainability of South Africa's road network.

It is acknowledged that the roads sector faces severe challenges with engineering skills, from professionals through to technicians and artisans, in short supply. If additional funding is to be allocated to infrastructure maintenance and rehabilitation, to ensure that the road network fulfils its socio-economic objectives, short-term strategies should be put into place to ensure that the roads sector will be able to operate at its best and that the development and maintenance of South Africa's road infrastructure will be able to keep up with the growing demand. This will require greater coordination of road management functions across the three spheres of government. To this end, the inter-road authority coordinating model proposed by the nDoT needs to be reviewed and modified for possible implementation (see Appendix A for details of the model). Unlike an intra-authority system set up to enhance the effectiveness of a particular road authority's management of roads within its area of jurisdiction, this inter-authority system coordinates activities between various road authorities at a strategic level. In this particular case, the coordinating body (consisting of the nDoT and extant road authorities in the nine provinces and municipalities) should be responsible for:

- developing a roads policy on norms and standards, including guidelines on classification;
- implementing a needs assessment framework to assist National Treasury in its allocations of road-related funding for road funding;
- developing an integrated management information system in line with section 6(1) of the National Land Transport Transition Act of 2000.
- developing a standardised monitoring and evaluation framework for road infrastructure; and
- formalising arrangements for technical and professional collaborations between SANRAL and sub-national entities lacking in technical and managerial aspects of road infrastructure management and development.⁹

Finally, with the full realisation of the potential benefits of improved funding for road infrastructure, maintenance and rehabilitation is likely to be hampered by lack of technical skills in the road sector. Therefore allocating conditional

⁷ This is often termed 'twinning'. Twinning programmes have linked a wide variety of institutions in the past, including utility companies, city administrations and development banks, as well as road agencies.

⁸ The use of conditional grants to improve capacity is not new. In the first few years following the establishment of the nine provincial and 284 municipal authorities, substantial conditional grants were allocated towards addressing critical constraints in financial and accounting management systems.

⁹ This is often termed 'twinning'. Twinning programmes have linked a wide variety of institutions in the past, including utility companies, city administrations and development banks, as well as road agencies.

grants for building road management capacity will go a long way in addressing the most urgent skills deficit in sub-national road management sectors, and also maintain or broaden skills base.¹⁰

6.5.2 Recommendations

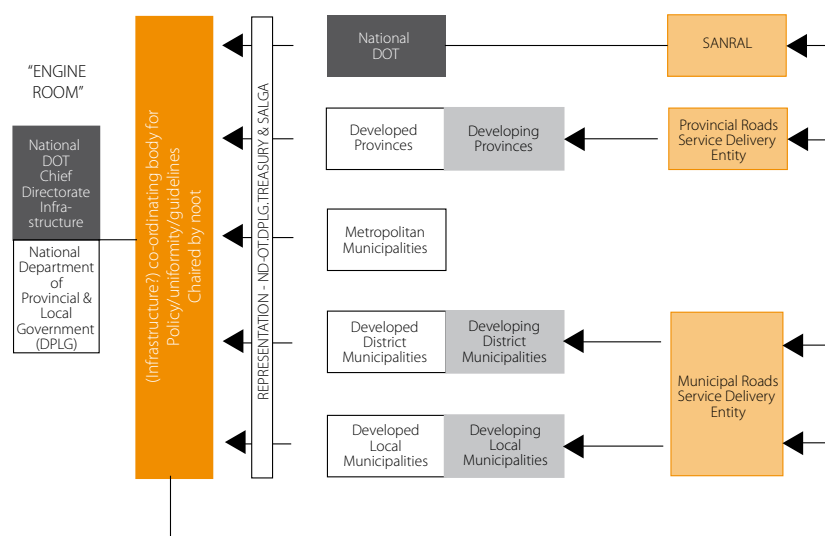
With respect to the management and financing of road infrastructure, the Commission recommends that:

1. There should be an increased and stable flow of funds for maintenance, rehabilitation and addressing backlogs in the long term. Potential policy proposals to ensure that this is achieved can include:
 - a) Formulating pricing and cost recovery policy for roads that generate sufficient revenues for authorities to maintain and operate their road infrastructure network on a sustainable basis.
 - b) Earmarking a portion of road-related user charges and taxes.
 - c) Explicitly including a road infrastructure component within the provincial and local government equitable share formulae.
 - d) Expanding the role of development institutions and capital market in funding road infrastructure investment especially within sub-national spheres.
2. There should be greater coordination of road management functions across the three spheres of government. In this regard, the revision and modification of the inter-road authority coordinating model proposed by the nDoT (see Appendix A) should be carried out with a view to possible future implementation.
3. Priority should be given to addressing the lack of technical skills in the road management sector of sub-national governments. Attaining this objective can be done via the introduction of a separate conditional grant specifically targeted at building technical capacity within the road management sector of sub-national governments.

APPENDIX A: Roads Coordinating Model of the National Department of Transport

In a discussion document entitled *Road Infrastructure Strategic Framework for South Africa*, the National Department of Transport (nDoT) proposed a roads coordinating body comprised of metropolitan municipalities, district municipalities, local municipalities and the South African Local Government Association (SALGA). According to the nDoT, the coordinating body will be structured in terms of the diagram below:

Figure 33: Roads Coordinating body



¹⁰ The use of conditional grants to improve capacity is not new. In the first few years following the establishment of the nine provincial and 284 municipal authorities, substantial conditional grants were allocated towards addressing critical constraints in financial and accounting management systems.

The functions of the body will include:

- Development of roads policy, standards and guidelines – including classification
- Review and normalisation of road proposals in developing provincial land transport frameworks (PLTFs) and municipal IDPs, and
- Allocation of road funding, including conditions for MIG funding relating to roads. The resources required to undertake the work of the roads coordinating body should come from the nDoT and the Department of Provincial and Local Government (DPLG), and a combined 'engine room', comprising officials from these two departments is recommended. The nDoT's part of the 'engine room' would effectively be the new transport infrastructure division within the department.

Roads service delivery would be affected by roads service delivery entities consisting of:

- SANRAL at national level
- A provincial roads service delivery entity at provincial level, and
- Municipal roads service delivery entity at municipal level.

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¹¹ It is important to note that this figure has increased to 16 150km currently due to the incorporation of other provincial roads into the national road network.

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Chapter 7: Assessment of Universal Access to Water and Sanitation Services in South Africa

7

Tebogo Makube (Financial and Fiscal Commission)*

7.1. Background

Before the advent of 1994 democracy, water was inadequately and inequitably supplied to the South African population. Many people in rural areas and some of the townships did not have access to safe and reliable water services. The sparsely populated nature of rural areas made it expensive for municipalities to reticulate infrastructure networks. The South African government is reforming the sector in order to foster efficiencies and expand universal access to water services. Water reforms are driven by changes in legislation and policies, institutional reforms, fiscal, pricing and tariff frameworks, expansion and access to water and sanitation services. Other regulatory issues such as environmental management and water resource management require a considered attention as well.

Water challenges in South Africa are symptomatic of an emerging gap between national policies and implementation of such policies. For instance, recently the reliability and quality of water supply by municipalities has been receiving attention, with some experts warning that South Africa has serious water challenges (Abrams, 1996; Muller, 2007; Eales et al., 2009). Some of these challenges include a lack of qualified staff and insufficient investments in water infrastructure for both capital and maintenance. The drive to achieve universal access for water and sanitation is compounding the challenge. Most of the intended beneficiaries cannot afford to pay for services beyond the stipulated amount of free basic water services (Metcalf-Wallach, 2007). These are complex policy issues which require informed choices, judgements and trade-offs.

7.2. Objectives

This study reviews and analyses the economics of water pricing, the institutional framework for service delivery and ancillary policy issues (specifically level of service issues) in South Africa. The thrust of the study is the analysis of access to and sustainability of water and sanitation services in South Africa, especially at the municipal level. Municipalities need revenues to ensure their financial viability. Users need reliable, safe, accessible and affordable (sometimes free) water and sanitation services. This relationship is not always linear. Many municipalities do not recover the full cost of the operation and minor maintenance of water and sanitation systems. As a result, the water system progressively degrades and the level of service decreases over time. South Africa is also set itself a constitutional obligation of providing universal access to water and sanitation services. These complimentary and contradictory policy challenges are reviewed and analysed comprehensively in the latter sections of this paper.

7.3. Methodology

The study uses economic analysis to review water supply in South Africa. The focus is mainly at the local sphere of government. Economic analysis is augmented by the literature review on water policy in South Africa. The synthesis of literature used was tested against the Statistics South Africa: 2007 Community Survey data on national coverage for water and sanitation services. Economic theory is used to generate an understanding on the economic role of water.

* The author would like acknowledge FFC Commissioners, Research and Recommendation Programme Director, Dr Ramos Mabugu and Colleagues at the FFC for the enthusiasm in the subject, encouragement and invaluable advice throughout the study.

Thus study has an extensive discussion on the supply and demand for water, and the institutions that bring that try to bring supply and demand at an equilibrium point. In South Africa, domestic prices of water are not determined by market forces, but are instead regulated by the authorities. Special attention is therefore placed on the water price structures. The analysis provided in this study is important for the understanding of the economic effects of water supply and usage in the country, compounded by an increasing demand for water and sanitation services.

7.4. Key results and discussion

7.4.1 South Africa's water supply framework

7.4.1.1 The Constitutional and Legislative Processes

The Constitution of the Republic of South Africa (No. 108 of 1998 as amended), the Water Services Act (No. 108 of 1997) and the National Water Act (No. 36 of 1998) emphasise the government's responsibility of ensuring that citizens have access to basic water and sanitation services. Muller (2007) argues that the Constitution underpins the right to water and sanitation "...since it is difficult to maintain minimum standards of dignity in the absence of water required for health and cleanliness and sanitation facilities which provide a modicum of privacy, convenience and comfort." However, he does acknowledge that social rights cannot be absolute and mandatory but their achievement is a long-term process. Section 27(2) of the Constitution provides that "... the state must take reasonable legislative and other measures within its available resources, to achieve the progressive realisation of each of these rights."

According to Abrams (1996), prior to the 1994 elections, the policy and functions of the Department of Water Affairs and Forestry (DWAF) were limited mainly to water resource management. This included the management of the larger water catchment areas; the supply of bulk untreated water to water boards (bulk treated water supply utilities), water quality management and the administration of the Water Act. Currently, DWAF is in the process of restructuring itself to be more responsible for policy development, regulation and support functions related to water and sanitation distribution services. The National Water Act divides the country into 19 Water Management Areas (WMAs) based on river catchments, each to be managed by a Catchment Management Agency (CMA).

According to the Constitution, the Water Services Act of 1997 and the Municipal Structures Act of 1998, the responsibility for the provision of water and sanitation services lies with the municipalities. The water services function is shared between category B and C municipalities. Overall, there are 169 water service authorities in South Africa, including water boards, district municipalities, local municipalities and municipal water utilities. Even though the Constitution assigns the responsibility for ensuring the provision of water and sanitation services to municipalities, the function is concurrent between spheres of government in South Africa.

The National Treasury (2008) in its Local Governments Budget and Expenditure Review (2003/04-2009/10) notes that the sharing of the water services function between category B and C municipalities is contributing to some of the difficulties currently being experienced in providing the service. These include:

- Confusion over responsibilities and accountability for the service in the community; and
- Confusion over funding and allocations of resources through the intergovernmental fiscal system.

The current practice is that the only recipients of the national grant for water and sanitation are the authorised municipalities. This becomes a problem in cases where authorised district municipalities delegate the responsibility for service provision to local municipalities without the necessary and adequate funding.

Before 1994, DWAF administered a number of water services schemes in poor areas. These were predominantly schemes in the former homelands areas that were created by their governments. There were 321 schemes which employed 8 094 staff and supplied water to 53 municipalities. The department has since ended its role as a water services provider and is transferring water schemes to the relevant municipalities. For the reporting period 2007/08 there 317 water schemes and 57 transferring agreements signed (DWAF, 2007). This is to be finalised over the next three years and funding is to be phased into the local government equitable share from 2009/10. The transfer of water schemes involves the transfer of assets and staff, and the resulting operating costs of salaries and free basic services.

The effectiveness of the function and cooperative government does, at times, become compromised when responsibilities are not fulfilled because of a lack of resources. The capability of municipalities to carry out water

service provision is uneven across the country. Where municipalities are incapable of performing their tasks, DWAF is empowered to intervene by strengthening the capacity of those municipalities.

Abrams (1996) notes that the role of water boards in providing treated water to municipalities and other large consumers mainly in urban areas has been a long standing institutional mechanism issue in the water sector. Water boards are regulated in terms of the Public Finance Management Act of 1999. The Water Services Act of 1997 has modified the role of bulk treatment water supply utilities, or water boards, by defining their functions and those of municipalities. According to DWAF, the Water Services Act now allows municipalities to develop their own bulk water supply infrastructure or to buy bulk water from service providers other than water boards. A simplified institutional framework of the water sector is shown in Table 50.

Table 50: The institutional framework of the water sector in South Africa

First Tier	National government (DWAF)	Water resource management support to municipalities, setting of norms and standards monitoring and administration of the Water Act
Second Tier	Water boards	Supply of bulk treated water on a commercial basis
Third Tier	Local Government	Supply of water and sanitation services to consumers

Source: DWAF, 2006

There are currently 15 water boards that employ over 6 000 staff. Their function, (where they exist), is to provide bulk water services to local government in a designated geographic area. Municipalities provide reticulation services and manage the interface with water and sewerage customers, consistent with regulatory, norms and standards. Service standards for wholesale water, sewerage and recycled water services are set out in supply agreements that are commercially negotiated between water boards and municipalities. In other areas (e.g. Cape Town), DWAF plays the role of a bulk service provider or municipalities perform this function directly.

According to the Local Governments Budget and Expenditure Review (2003/04-2009/10), the estimated revenue of all water boards amounted to R5.9 billion in 2005/06. In terms of budget size and people served, the two largest water boards are Rand Water and Umgeni Water.

7.4.1.2 Review of water supply policy issues

Water supply policy reforms in South Africa, which started in 1994, form part of the government's overall programme of redressing past discriminatory legislation and practices. Referring to the White Paper on a National Water Policy for South Africa, DWAF (1997) states that

"... the new water policy embodies the national values of reconciliation, reconstruction and development so that water is shared on an equitable basis, so that the needs of those without access to water in their daily lives are met, so that the productive use of water in the economy is encouraged, and so that the environment which provides South Africa with water and which sustains life and economy is protected."

Abrams (1996: 2) argues that South Africa will have some difficulties in reaching its stated policy objective because the country has a semi-arid climate with unevenly distributed rainfall (43% of the rain falls on 13% of the land) with high annual variability and unpredictability.

What underpins the analysis of the South African water supply are access, affordability, reliability and quality of water services. According to Jackson (1998), out of a population of 43.8 million in 1995, about 52% were urban, and 18% of this urban dwellers (4 million) had only a minimal water supply or none at all. The equivalent figure for lack of urban sanitation was 22%. In rural areas, Jackson (2003) estimated that 40-60% of the population (8-12 million) did not have an adequate water supply service.

At the United Nations Millennium Summit in 2000, countries adopted the goal of attaining the eight Millennium Development Goals (MDGs) by pledging to meet specific targets aimed at eradicating extreme poverty by 2015. Central to all eight goals is water. The central role of water in human and physical development was formally recognised in target ten that aims at halving the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015. In responding to the Millennium Summit pledge, South Africa made its own specific targets that all people of South Africa will have access to:

- safe drinking water by 2008; and
- basic sanitation by 2010.

7.4.1.3 Skills challenges in the water sector

South Africa has placed itself at the forefront of water resources management through the development of remarkable policy and legislation. However, the shortage of skills, especially technical skills, is a challenge for the implementation of the water policies and legislation. In this respect, DWAF (2005) noted that the recruitment and education of technical people had become a 'critical bottleneck' that seriously affects the department, water boards, municipalities, the South African Institution of Civil Engineering (SAICE) and the Water Institute of South Africa (WISA) in their fulfilling constitutional obligations of providing reliable water and sanitation services.

The shortage of technical skills is severe in South Africa. According to Lawless (2007), the country's ratio of civil engineers to total population is 1:3170, while that for Europe is 1:400-500. A survey undertaken by SAICE in 2004 revealed that local authorities have experienced severe loss of engineers and technologists over the past 14 years, leading to the collapse of infrastructure and maintenance programmes, widespread demand failures and water treatment failure (SAICE, 2004).

The survey also found that there are proportionately more unfilled posts at the senior professional and technical level than in any other category of positions in local government. The survey, further indicates that of the 278 local and district municipalities, 83 have no civil engineers, technologists or technicians, and 44 have only one civil engineering technician. Specific issues identified by SAICE during the survey are:

- High turnover of staff;
- Loss of skills and institutional memory following the departure of experienced staff;
- Little or no career-path planning and succession planning; and
- Loss of mentors following the departure of experienced staff.

SAICE (2008) also notes that a large proportion of the best qualified and most experienced technical staff in municipalities will be retiring in the next 10 years, taking with them much of the needed skills, experience and institutional memories.

A number of skills development initiatives aimed at providing training in the scarce skills are being put in place in the water sector. A water sector support coordinating unit (WSSCU) was established within DWAF in 2007 to focus on the acceleration of basic water services delivery, by identifying and addressing project implementation bottlenecks in DWAF and municipalities. Hands-on engineering and technical support is provided through the a number of programmes; including the Development Bank of Southern Africa's (DBSA) Siyenza Manje programme, the SAICE deployment programme's ENERGYS (engineers now to ensure rollout by growing young skills), and the Masenzani Management Support Contract. More creativity is needed to circumvent skills challenge in the sector, especially at local government level. This relates to partnerships, training, joint ventures and retention strategies.

This shortage of skills in the industry necessitates urgent recruitment, training, mentoring and retention of critical skills across all institutions responsible for water and sanitation services. Water institutions should use a variety of instruments to circumvent capacity challenges. Some of the options to consider are:

- Issuing of bursaries for scarce skills;
- Developing mentorship programmes;
- Developing and implementing retention strategies to deal with staff turnover;
- Establishing Water Shared Services Centres with roving teams to assist municipalities;
- Embarking on joint ventures with engineering companies.

7.4.2 Balancing government control and Independence of the water regulator

The comprehensiveness of the water industry makes the subject of water economics complex. The consequence of the political importance of water is that governments attach considerable priority to retaining the ability to maintain control over decisions that will affect its development (Griffin, 2006). The importance of maintaining policy control over the water sector is also complicated by the ability to balance contestations between policy implementation and trade-offs in certain circumstances. The industry structure, conduct and performance indicate that issues of

economic regulation in the sector will become prominent and will attract a lot of public and political interest. There has to be a robust discussion on the various aspects of regulation. This relates to the creation of an autonomous regulatory authority with enough powers to achieve water policy objectives.

It is crucial for regulators to be clearly independent of the businesses that they are charged with regulating. A key role for regulators is the maintenance of the right balance between the interests of consumers and those of service providers. It is logical, therefore, that regulators should not come under the control of government or consumer representatives but directly report to Parliament.

Economic regulation through the use of a variety of instruments can play a role in ensuring that universal access targets are met, the environment is protected, quality water is provided, and that the industry is sustainable. Joskow (2005), points out that economic regulation covers both the regulation of price and non-price economic activities. Price issues in the context of regulation generally include, among other things, determining the rate of return, price-cap regulation and benchmarking. Non-price regulation on the other hand includes service provision in relation to security of supply, quality of supply, environmental, health and safety regulation, and responsiveness to complaints. Regulation is only feasible in uncompetitive markets and should assist in maximising marginal social benefits over marginal social costs.

Legislative, policy and regulatory changes within the water provision sector are driven by security of water supply, deteriorating infrastructure and alternative service delivery methods. The primary economic and regulatory concerns are to achieve efficiencies in the industry subject to political choices. The water sector is changing, and emerging policy issues span from the role of the state in the water sector, funding and infrastructure support to environmental regulation. The main thrust here is how to implement policies, strategies, programmes and projects, bringing in and using market-type mechanisms so that the institutions of the state can better manage the trade-offs.

The South African water supply industry is plagued by a number of structural deficiencies, and the government has embarked on a reform agenda to address them. Government must make a choice regarding the structure of the regulator and regulatory instruments to be used in the sector. The question is whether DWAF should be responsible for both policy development and regulatory oversight or should an independent regulator be established? Of critical importance for the establishment of the regulator is to deal with the industry structure and market design, including the extent of both vertical and horizontal integration. Regulatory provisions should be made to enable and/or encourage efficiencies within the entire supply chain in the sector.

In his State of the Nation address in 2006, the then President Thabo Mbeki indicated that the South African government's stance is that strong and proper regulation in the key sectors of the economy, such as energy, telecommunications and transportation, will contribute to better, predictable and informed decision-making. This should be extended to the water sector.

7.4.3 Water pricing and fiscal instruments

7.4.3.1 Water pricing

Water pricing affects the provisioning of water and sanitation services in South Africa. According to Eales et al. (2009), water tariffs and the free basic water subsidy programme coupled with transfers (equitable share and conditional grants) are instruments used for financing water services. These instruments are yielding differentiated service levels measured in terms of efficiency, affordability and willingness to pay.

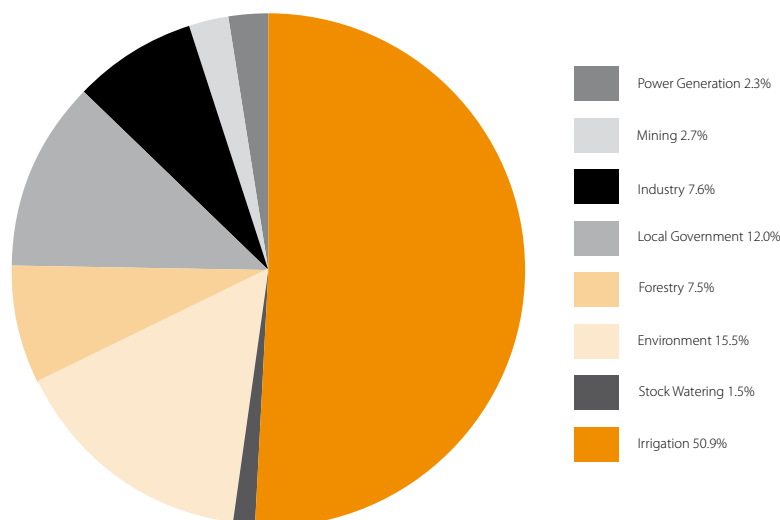
According to the DWAF (2005), water pricing policy is structured into three tiers:

- **First tier:** raw water tariffs administered by DWAF for the sale of water to water boards.
- **Second tier:** water boards set the wholesale price of water to bulk water users, such as municipalities, and industries, such as Eskom and Sasol.
- **Third tier:** municipalities determine the price of water to charge end users such as households and industries.

MacKay et al (2003:64) argues that “... *historically, pricing of water in South Africa did not generally take into account the real cost of managing water, the cost of water supply and the scarcity value of water.*” MacKay et al further note that the government financed the capital costs of water schemes supplying agricultural water users, some urban bulk water suppliers and industrial users. In addition, operation and maintenance costs were often not fully recovered from these water users.

Water pricing can be an instrument to foster efficiency and demand-side management. South Africa needs to implement its integrated water resources management (IWRM) strategy because it has a “semi-arid climate with unevenly distributed rainfall and differentiated utilisation rates” (Abrams, 2006). Figure 16 shows the demand for water per sector. Data presented in Figure 1 shows that irrigation within farming consumes more than 50% of water in South Africa. Local government consumes more than 12% of available water. Given these pressures, there is a need for the country to manage its demand for water services carefully.

Figure 34: Demand for water per various water user sectors in South Africa



Source: DWAF, 2007

Proper implementation of water resource management is crucial. The policy is in place but plans are needed on a variety of issues pertaining to actual implementation. These relate to usage and equitable allocation of water, tariff and levies, water quality, standardised water supply regulations, loss management policy, related land-use policy, the impact of alien plant species in catchments and water-using appliance labelling policy. Coupled with pricing is a need for better coordination by WMAs and Water Management Institutions (WMI) on functions and accountability.

Pricing issues, no matter how contestable they may be; cannot be viewed in isolation from policies, governance and institutional structures. These issues affect the performance of the water supply industry. They are all important and interlinked. Any comprehensive review or analysis of the industry must touch on them.

7.4.3.2 Fiscal instruments

a) Local government revenue

Municipalities are responsible for funding most of their activities from own-revenue sources, which on average makes up 96% of their budgets (National Treasury, 2008). They have discretion on the composition of the service delivery packages, the levels of service and the manner in which services are funded. The challenge is that the local government system is currently characterised by huge disparities in terms of individual municipalities' local economies, revenue-raising capacity, and capacity (both infrastructural and human) to deliver basic municipal services. Poor and rural municipalities have difficulties providing basic services in general (Eales et al., 2009).

Municipalities use their own revenue to cross-subsidise services and between 'rich' and 'poor' households. A broad assessment of municipal revenues in poor and mostly rural municipalities, (the areas with the greatest service delivery needs), indicates that currently the direct cost recovery mechanism is not economical to cover the real cost of providing services (National Treasury, 2008). Thus, domestic water pricing is combined with a subsidy programme to achieve the goals of the National Water Act. It should be noted that it is difficult to cross-subsidise when everyone is poor. Shortfalls in revenue are either carried by the service provider or financed by intergovernmental transfers.

b) Water pricing as a source of local government revenue

The Constitution of South Africa and the Local Government Municipal Systems Act of 2000 require that local government ensure that the services it provides are sustainable. The Department of Provincial and Local Government (DPLG) (2007) noted that the main gap in basic and infrastructure services delivery is the lack of sustainable financing. Municipalities must endeavour to provide infrastructure and deliver services within a financially sustainable and administratively sound framework. In respect of local government, there is a need for a trade-off between sustainability and the affordability level that must be achieved in the pricing of a basic service.

In South Africa, municipalities are using block tariffs to charge users for water consumption beyond the free basic water subsidy (Metcalf-Wallach, 2007). The common characteristic of block tariffs is that the first block price is free, for all; the second block is sometimes set below the marginal cost price in certain municipalities. For blocks beyond, and for luxury uses such as filling swimming pools, extremely high prices are charged with the idea that the wealthy cross-subsidise the poor. This assumes that (a) the rich are sufficient high consumption users to cross-subsidise the first block; (b) the average cost of water remains transparent, with incentives for providers to set it at an efficient level; and (c) that punitive charges for high consumption do not result in a radical reduction in use and thus of revenues needed for the cross-subsidy.

Because all South Africans receive the same level of service, there is a contestation around the amount of water allotted as free basic water in terms of pricing and equity. Critics of block tariffs say the system is discriminatory towards the poor and makes a mockery of the notion of 'free basic water', as the poor cannot afford beyond the allocated amount. This compounds and exacerbates the already existing culture of non-payment for services. There is a need to review the pricing of water in order to limit errors of exclusion and inclusion amongst beneficiaries.

c) The equitable share

Part of the local government equitable share (LES) is the provision of free basic services. Therefore, as part of the constitutionally mandated basic services, water becomes one of the first services against which the equitable share is charged. However because LES is an unconditional transfer, municipalities tend to use it to supplement operating costs of service delivery. Therefore this instrument, as a way of financing water and sanitation, is not ring fenced.

Other funding instruments that government has in place include specific purpose grants, such as the Municipal Infrastructure Grant (MIG) whose purpose is to fund the provision of supporting for the lack of, poor and inadequate infrastructure and services.

d) Conditional grant funding for water

Prior to the MIG, there was a water grant funding known as the community water and sanitation services (CWSS), which was managed by DWAF. The grant formula was determined by the Reconstruction and Development Programme (RDP) and the associated policy on free basic water policy. CWSS won the Water Globe Award in 2000 as the most innovative programme in the world.

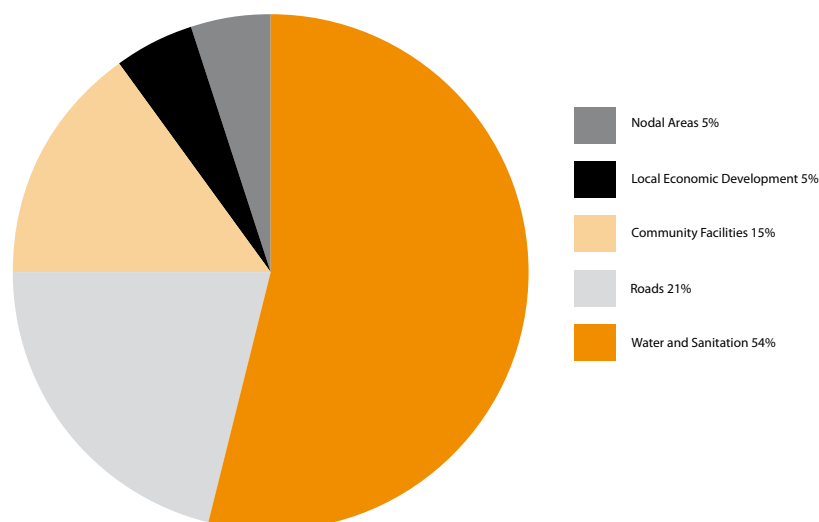
Third parties, such as local committees, NGOs or private companies that the Water Services Act (No. 108 of 1997) allowed to be made responsible for service provision at village level, benefitted from the CWSS. At one stage, the Mvula Trust (the largest NGO supporting water and sanitation development in South Africa) received 10% of funds allocated to CWSS. It is now heavily dependent on donor funds from the European Union (EU), Australian Aid (AusAid) and Irish Aid (Venter-Hildebrand et al., 2000).

After the promulgation of the Municipal Structures Act (No. 117 of 1998) as amended, the responsibility and authority to be water service authorities was transferred to local government. There was also a need for a multi-sectoral approach to fund municipal infrastructure. In this regard, the MIG replaced the CWSS.

MIG is a conditional grant for infrastructure investments transferred to municipalities. The grant is administered by then DPLG. Its goal is to eradicate municipal infrastructure backlogs by expanding access to basic municipal services. Municipalities in the urban renewal and rural development programmes are prioritised for support. Social institutions and micro-enterprises infrastructure are beneficiaries as well. The strategic goal of the grant is to maximise opportunities for employment creation and enterprise development.

Areas targeted by MIG are on-site services, internal reticulation, internal bulk such as local water resources, local water treatment, local supply and village reservoirs. Allocations to municipalities are made in terms of the formula that takes into account the backlogs, poverty levels and powers and functions. Weights are allocated to the different components and sectors depend on the policy priorities of the government. In terms of beneficiation water and sanitation receives the bulk of MIG funds (see Figure 35).

Figure 35: Municipal infrastructure grant components



Source: DPLG, 2007

The Division of Revenue Act (Act 1 of 2007) required that MIG allocations to all municipalities be fully spent in the year of allocation and failure to do so would result in funds being reimbursed back to National Treasury (i.e. no rollovers are allowed). The other grant earmarked for the water sector is the regional bulk infrastructure grant. According to the Division of Revenue Bill (2007), the application of this grant is specifically for:

- Water supply and sanitation regional bulk infrastructure, with the focus on 'regional' characteristic and the 'infrastructure' element.
- Macro and regional 'bulk' infrastructure (schemes). 'Macro' is defined as infrastructure serving extensive areas across multi-municipal boundaries.
- Internal bulk infrastructure is to be funded under alternative funding mechanisms (for example, the MIG for the basic services component).
- The 'capital' component of the scheme. This includes all aspects relating to the implementation of the infrastructure, planning, design, procurement and implementation, as well as setting-up the institutional arrangements. Funding for operations and maintenance must be obtained from alternative funding mechanisms and must be addressed as part of the grant funding application.

DWAF argues that this grant is required to connect water resources, on a macro or sub-regional scale (over vast distances), with internal bulk and reticulation systems. Its performance in the 2007/08 financial year was that the programme consisted of 44 implementation readiness studies and 30 infrastructure projects (12 in construction phase and 18 in design and tender phase).

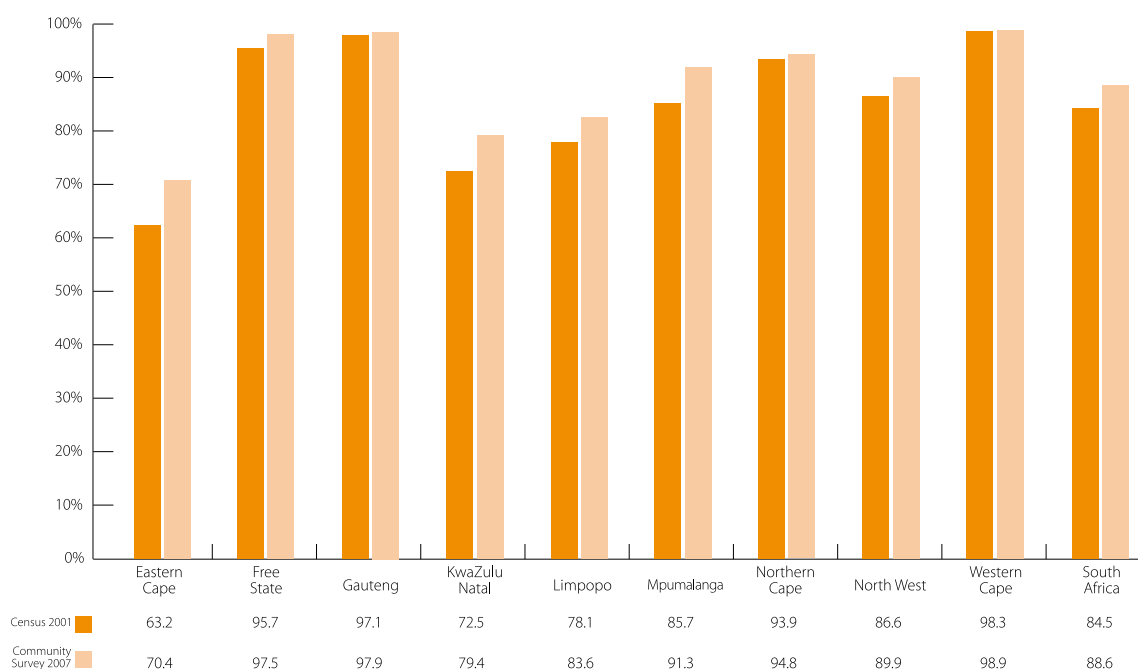
Alternative service delivery models should augment funding instruments. For instance, in rural areas where municipalities are struggling to provide adequate water and sanitation services, it is important to give assistance to organisations such as the Mvula Trust, community cooperatives or farmer groups who obtain the permission of their local government to identify and develop a water supply. Eales et al. (2009) propose that the reconsideration of Public Private Partnerships (PPPs) can improve efficiencies in the water sector. This must be linked to changes in the formulation of fiscal transfers, improvements in the design of tariff structures to permit the systems to meet demand, and better-targeted subsidies.

7.4.4 An analysis of Free Basic Water policy

In response to the process of ‘progressive realisation’ of social rights, national government introduced a free basic water subsidy policy in 2000. In terms of this policy, all municipalities are required to provide a basic minimum quantity of water (6 000 litres per household per month) free of charge to all people in their areas (Kasrils, 2000). According to Muller (2007), the amount of water provided free is based on the 25 litres per person per day calculated for a family of eight members. For the poorest households not connected to a water network, the National Water Act of 1997 stipulates that community pumps be installed within 200 meters of all houses. Muller notes that this is in line with the World Health Organisation’s (WHO) recommendations which suggest that the priority should be to ensure that all people have access to this basic level of service before upgrading to household connections.

In assessing government’s achievement on this basis, the 2007 community survey by Statistics South Africa (StatsSA) estimated that 88.6% of the population in South Africa had access to piped water in 2007 (see Figure 36). All provinces showed an increase in the percentage of households that had access to piped water. The percentage of households with access to piped water in Eastern Cape, KwaZulu-Natal and Limpopo is below the national average. Though access to piped water is increasing, South Africa has missed its target of making safe drinking water accessible to all by 2008. Policy issues pertaining to access, reliability, quality water, levels of service and pricing require a comprehensive review and considered attention.

Figure 36: Percentage of households with access to piped water by province



Source: Statistics South Africa: Community Survey, 2007

The 2007 StatsSA’s community survey further highlights two critical demographic trends affecting the water services sector: urban migration and a rapid decline in the average size of households (from 4.5 to 3.9 between 1996 and 2007). These have created a large number of new urban households that require access to water services, therefore increasing the backlog. In addition, installed water services infrastructure requires expansion, rehabilitation and replacement to keep up with the demand as a result of economic growth. Collectively, this creates a significant financing challenge for water service authorities.

This challenge is compounded by the need to ensure that all South Africans are able to obtain access to water on a sustained basis, regardless of their ability to pay. Thus, financing strategies must balance the affordability of services with the significant investment needs of the sector. The water financing challenge needs to be resolved through a water pricing and subsidy strategy for the sector, as implemented by individual water services authorities. Ultimately, the final cost of water to consumers must be reflective of both the financial and environmental sustainability. Such sustenance should be premised from critical social policy concerns such as equitable access to services, affordability, ability and willingness to pay.

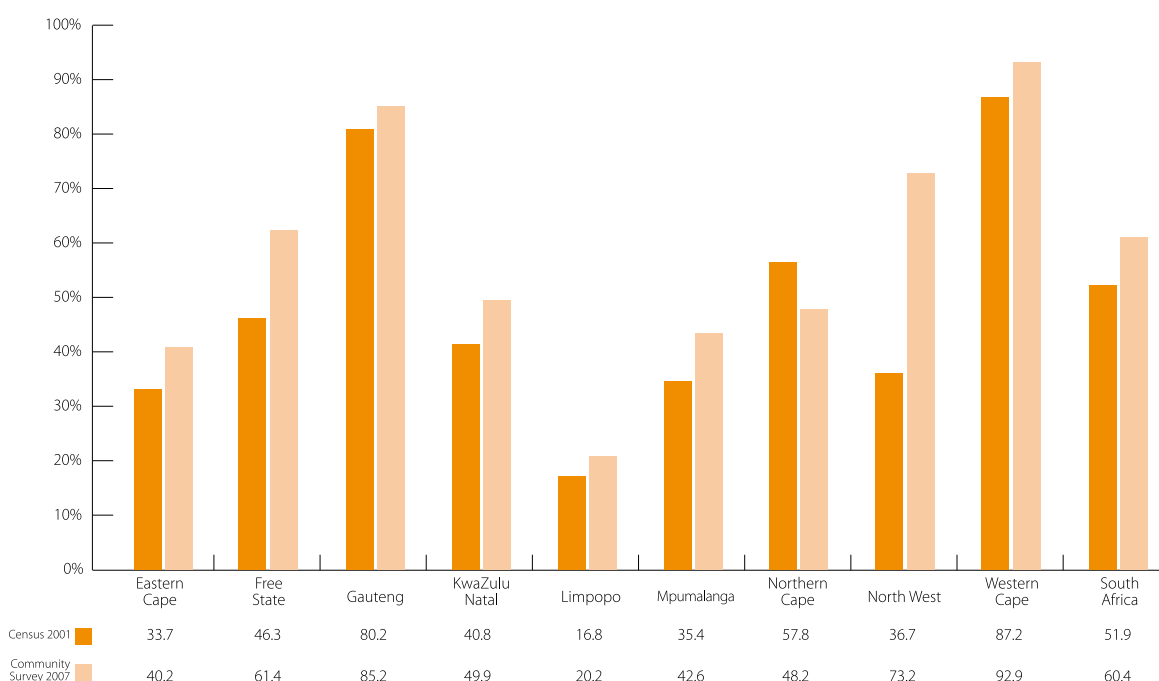
It is a national policy for municipalities to provide free basic water subsidies. The subsidy is managed through water tariffs which differ across municipalities. Using the tariff system, the subsidy is passed on to water account holders through consumption, as opposed to direct transfers. This leads to errors of exclusion and inclusion wherein large consumer units (households) sharing a single connection receive smaller per capita subsidies, while small-sized households receive larger subsidies. This is regardless of their ability to pay for services. Because it is consumption based the error that exists is that even the well-off households are catered for by the subsidy, especially in areas where a mix of low to high income-earning households exists.

Another challenge with the current subsidy is that people who do not have access to piped water are not beneficiaries of the policy. Therefore unless government ensures achievement of universal access to this service, it becomes difficult to attain its objectives. Furthermore, tenants, particularly in high-density dwellings such as flats or compounds, are excluded from receiving the subsidy altogether.

Lack of transparency between the service provider and the consumer further complicates the water subsidy system. As such, a tariff-based subsidy may discourage efficiency savings by service providers, as the average cost of water is hidden from the consumer and water services authorities. This has a potential to reduce the net benefit of the subsidy over time.

With respect to sanitation, the 2007 community survey estimated that by 2007 just above 60% of households had access to flush toilets. Free State, Gauteng, North West and Western Cape were the only provinces with more than 50% of households owning flush toilets. However, even though Free State had the highest number of households with access to flush toilets, they also had a high number using the bucket system. More than half of households in Limpopo (56.3%) used a pit latrine without ventilation, and 25.2% of households in Eastern Cape had no toilet at all (see Figure 37)

Figure 37: Percentage of households with access to a flush toilet by province



The number of households without a flush toilet remains high at almost 40% of households in 2007. Muller (2007) notes that the most severe challenge South Africa is facing is in the provision of sanitation services. He argues that the definition of 'basic sanitation' requires that the target be shifted, to focus on the individual households units within each dwelling site. Rapid migration to urban areas and decreasing household sizes are adding to the challenge of achieving universal access to piped water and basic sanitation services.

The potential conflict between the classification of sanitation as a basic service and the expectation by recipients of a full water-borne sanitation has the potential to hamper equal progress across provinces similar to that achieved in water supply. Muller (2007: 6) notes that "... *poor communities, particularly in smaller urban areas, often refuse*

to accept on-site sanitation solutions that meet government's definition of a 'basic service' and demand full water-borne sanitation."

The following section recommends policy options on how to respond on the myriad of challenges facing the water sector in South Africa.

7

7.5. Conclusions and recommendations

7.5.1 Conclusions

Several systemic issues contribute to the challenges faced within the provision of water and sanitation services in South Africa. These range from best practice through to the unacceptable. In a large number of municipalities, budget and staffing challenges inhibit the supply of safe and reliable water and sanitation services. It is in this context that this chapter asserts that a divergence is beginning to emerge between policy objectives and practical provision and financing of water and sanitation services.

7.5.2 Recommendations

1. This paper recommends that there must be a review of the free basic water and sanitation subsidy as well as a review of water tariff structures, to ensure that the shortcomings implicit in the current subsidy system do not outweigh the benefits. At present, there is no coherent framework of oversight for how water service authorities manage trade-offs in the design and determination of their water tariffs. The tariff structures (that is, the number of customer classes or consumption blocks and the level of tariffs for each of the classes or blocks), which are different in various municipalities, have a substantial impact on the pricing of water. Principles and practices guiding both tariff and subsidy structures and price levels should be made clear and routinely monitored.
2. In order to sharpen the focus of public expenditures on expanding access to sanitation services and improving sanitary outcomes, this study recommends that:
 - a) The sanitation strategy should target behavioural change in relation to sanitation practices by households, rather than the provision of infrastructure alone, premised on attaining certain health outcomes. This can generally be achieved through establishing targets and providing funding in a manner that creates incentives for community-level behavioural changes, while providing households with greater discretion on selecting sanitation technologies that meet their needs.
 - b) Greater consideration should be given to household affordability constraints that may affect the long-term sustainability of sanitation investments. High service levels (such as in-house flush toilets) put significant ongoing pressure on household and municipal budgets, without a significant proportional improvement in public health outcomes. This limits the pace at which sanitation backlogs can be addressed, and may create significant fiscal risk for service providers over the longer term, as assets must be maintained and replaced.
3. It is also recommended that there be a separation of policy function from the regulatory function within the water services sector. This should help to improve institutional accountability for performance and the achievement of policy goals. The current overlapping of capacity support, oversight and policy-making functions within the Department of Water Affairs and Forestry (DWAF) has led to a situation where policy targets are inadequately monitored, and simply shifted in the case of under-performance. Following on this recommendation, it is proposed that the government consider establishing an independent National Water Regulator that would report to Parliament. Its functions, amongst others, will be to:
 - a) Regulate the entire water supply industry.
 - b) Issue licences, regulate tariffs, and monitor Water Integrated Resource Plans for infrastructure investments.
 - c) Regulate compliance to industry norms and standards.
 - d) Regulate the supply of water and sanitation services and their compliance to quality standards.
 - e) Regulate water efficiency and demand-side management

- f) Develop regulatory frameworks for Public Private Partnerships and alternative service delivery models in the water sector.
- g) Ensure regulatory instruments support the achievement of universal access to water and sanitation services.
- h) Monitor supply and demand trends in the water supply industry.

7.5.2.1 Observations

The Financial and Fiscal Commission observes that there is an urgent need for the recruitment, training, mentoring and retention of critical skills across all institutions responsible for water and sanitation services in South Africa, more especially at the local government level. Water institutions should use a variety of instruments to circumvent capacity challenges. Options to consider are: -

- Issuing of bursaries for scarce skills.
- Developing mentorship programmes.
- Developing and implementing retention strategies to deal with staff turnover.
- Establishing Water Shared Services Centres with roving teams to assist municipalities.
- Embarking on joint ventures with engineering companies.

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7.6.2 List of other publications produced by project

- This study has been accepted for presentation at the 65th Congress of the International Institute of Public Finance (IIPF) to be held in Cape Town from the 13-16 August 2009.
- Annual Submission for 2010/11 Division of Revenue

Chapter 8: Assessing of the Institutional and Fiscal Capacity Support Mechanisms of Local Government in South Africa

Eddie Rakabe (Financial and Fiscal Commission)*

8.1. Background

The South African Constitution envisions a developmental local government sphere, whose objective, among others, is to ensure the provision of services to communities in a sustainable manner as well as promoting social and economic development. This vision is further articulated in the White Paper on Local Government which identifies provision of infrastructure and services, integration of cities and rural towns, promotion of local economic development, community empowerment and redistribution as key to reaching developmental outcomes. The critical role of local government is to ensure sustainable delivery of basic services such as water, sanitation, housing and electricity in an integrated manner.

Over the 10 year period since the beginning of the local government transition substantial progress has been made with respect to increasing service delivery. Starting from 1994 the number of people with access to potable water increased from 59% to 86%. Electricity access increased from 36% to 79% while sanitation increased by 25% to 73%. The number of people using the bucket system in 2006 was estimated at 67 000 from 250 000 in 1994 (National Treasury, 2006). These improvements were made possible by substantial increases in both the operational and infrastructure transfers of local government from the national government.

However, recent evidence shows that there is a growing perception among the stakeholders that local government in general is unable to manage their own affairs as well as perform their powers and functions particularly with respect to delivering good quality services. Central to these perceptions, is the general assumption about the profound lack of capacity to perform critical functions necessary to facilitate service delivery. In his budget speech (21 June 2004) the Minister of Provincial and Local Government acknowledged that limited capacity and resources within certain municipalities is a clear cause of poor service delivery (Department of Provincial and Local Government, 2004) The Minister acknowledged that without capacity and resources to implement its assigned functions local government cannot reach the goals envisaged in the White Paper. However it is worth noting that inability to deliver services in itself does not necessarily constitute a capacity challenge, but is rather a manifestation of failure of local government procedure and systems.

The persistent inability to deliver services by municipalities triggered by the absence or lack of adequate capacity within local government has attracted numerous support interventions from the national government, provincial government, district municipalities, state and private entities as well as international development agencies. National and provincial governments are legislatively bound to assist local municipalities with capacity in order to fulfil the service delivery mandate. Such a responsibility is vested with the national and provincial department responsible for local government as well as the national and provincial treasuries. The support programs has in the main focused on addressing symptoms of lack of capacity as opposed to causes through various initiatives such as universal and

* This paper would not have been completed without the valued support and guidance from the Financial and Fiscal Commission Commissioners to whom I pay homage. Special appreciation is extended to Commissioner David Savage whose expertise, assistance, critique and comments helped shape my thoughts and most importantly this paper. I also give my respect to fellow researchers at the Commission who commented on the paper throughout the research cycle. Special thanks to stakeholders and colleagues from the Development Bank of Southern Africa, Department of Provincial and Local Government and National Treasury.

targeted grant funding as well as hands on technical support to a selected, or classified number of municipalities (mainly rural municipalities).

With this background, this study seeks to evaluate the performance of capacity-building programs to municipalities through understanding the causes of poor capacity and highlight key reforms necessary to improve the effectiveness of current public expenditure in this area.

8.2. Objectives

The main purpose of this study is to assess the effectiveness of local government capacity-building programs. Within this context the study aims to achieve the following objectives:

- Identify the underlying causes and indicators of lack of capacity within different categories of municipalities
- Identify and evaluate the national and provincial capacity-building programs which were put in place to assist in building local government capacity. The evaluation will among other things cover the following:
 - Appropriateness of capacity-building programs to current challenges affecting municipalities
 - Coordination between programs
 - Funding of programs
 - Timelines and period
 - Capacity needs assessment
- Propose the general principles or framework and the sequence for the provision of capacity-building programs to local government

8.3. Methodology

The first step in the study was to scan the literature on concepts of capacity-building. We then looked at the causes and indicators of poor capacity within local government .

The second step involved collection of data on the number of local government support programs initiated by government and the objectives reached.

The third step will be to conduct municipal visits (fact finding) to a selected number of municipalities which have been the recipient of at least 5 capacity support programs and hold public hearings within jurisdiction of such municipalities. This will be undertaken in the second phase of the project.

8.4. Key results and discussion

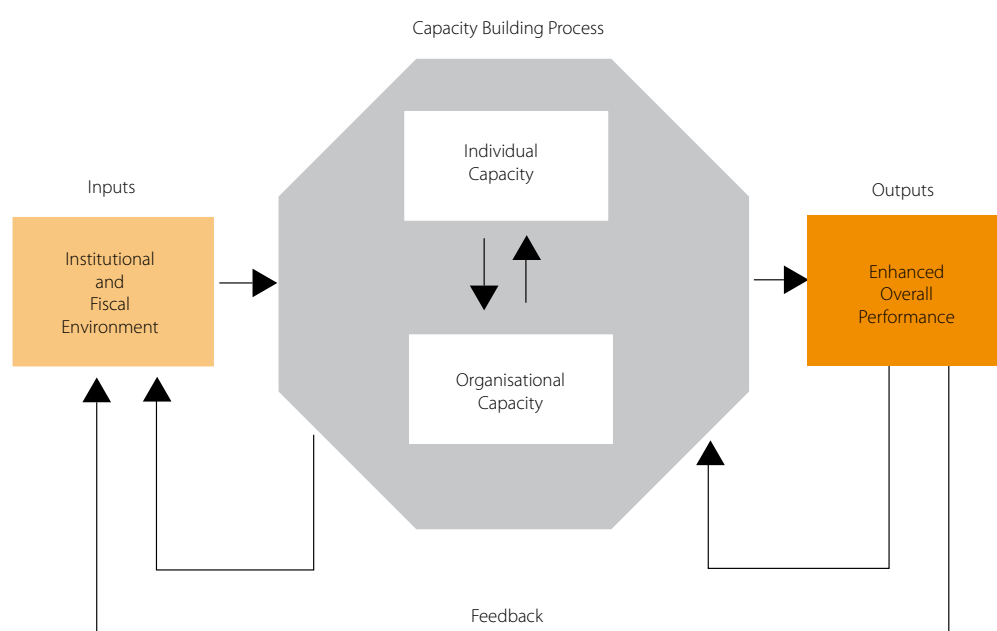
8.4.1 Capacity-building or Development: Theoretical Framework

8.4.1.1 Capacity-building: concept, meaning and process

The concept “capacity development” has numerous definitions, each reflecting a particular bias or orientation towards specific focus areas. It is used in many different ways which are susceptible to contradiction and confusion. At times it is simply equated to the provision of basic equipment, training, institutional strengthening, development support and other miscellaneous aspects. It is also seen as an approach or process, e.g. towards reduction of poverty or a development objective targeting development of individual and organisational capacity. The United Nations Capital Development Fund (2005) defines capacity-building as “the ability of individuals, institutions and societies to perform their functions, solve problems, and set and achieve objectives in a sustainable manner”. In essence, there is no single definition of what exactly constitutes capacity development. However there is widespread consensus that capacity development entails numerous aspects, approaches, strategies and methodologies aimed at improving the overall performance of an institution or organisation.

Capacity-building can take many forms including, people, organisational, institutional and fiscal aspects, contrary to the common misconception of limiting it to training, workshops and seminars to build staff skills. **Fiscal capacity** simply refers to the ability of local government to mobilise revenue. The adequacy of this revenue is central to local government's ability to perform its functions. **Individual capacity** focuses on improving the skills base of municipal personnel. It comprises the transfer of knowledge, experience, skills and values, behavioural changes, development of cooperation and communication systems. To achieve this, the organisational environment must be dynamic and responsive. **Organisational capacity** on the other hand relates to planned attempts to establish, develop or improve the ability of organisations to effectively and efficiently carry out its assigned functions on a sustained basis with minimal external assistance. **Institutional capacity** refers to the legal and regulatory changes that have to be made in order to enable organisations and agencies at all levels and in all sectors to enhance their capacities. Such institutional issues generally need the political and legislative authority of national government to bring about effective change. The institutional environment represents a broad context within which the development process takes place. The Organisation for Economic Cooperation and Development (1997) report notes that it is better to aim at institutional changes in key organisations than to focus on improving the capacity of individuals. Not only does this lead to improvements in organisational performance, but the impact on the individuals is more beneficial.

Figure 38: Integrated effect of capacity-building process



Source: (Adapted from Williams, 2006)

The four pillars of capacity-building outlined above are mutually inter-related and therefore need to be dealt with in an integrated manner. A capacity-building process is a dynamic process that receives inputs and turns them into outputs as illustrated in Figure 38. The institutional environment influences the behaviour of the organisation and individuals in a large part through the incentives it creates. The institution provides an incentive to the organisation or municipalities to improve the outputs. Some incentives enhance service delivery and capacity development while others foster passivity and poor performance. In turn, organisational and institutional set-ups influence individual capacities by creating incentive structures that give them the opportunity to utilise their skills and abilities effectively.

Capacity-building as an approach or process is based on key principles and best practices which are necessary to underpin the framework. These principles are critical for the success of a capacity-building strategy. It emerges that strong and effective leadership combined with pressures for change emanating from outside the organisation are important success factors

- The first principle advocates that capacity development should have a broad based participation and locally driven agenda. A critical mass of staff members, including front-line staff, must be involved and as far as feasible,

external inputs should be locally sourced. If this is not possible, any “extra-national” assistance should work with local providers in order that the latter gain experience and expertise.

- Secondly, it must build on or enhance existing local capacities.
- Thirdly, there must be strong demand-side pressures for improvements exerted from outside (from clients, political leaders, etc.).
- Fourthly, it should be a long-term and adaptation process with sustainable outcomes that is not rushed, but at the same time showing visible quick wins that deepens commitment for change early in the process.
- Fifthly, it must integrate activities at various levels to address complex problems and remain engaged even under difficult situations.
- Sixthly, and most importantly, capacity-building programs must establish positive incentives.
- Lastly, top management must provide visible leadership for change, promote a clear sense of mission, encourage participation, establish explicit expectations about performance, provide feedbacks and constant communication as well as reward well-performing staff.

The process of capacity-building needs to be underpinned by a capacity-building framework or strategy. Among other things the framework must identify the **required capacity needs** of individual municipalities. Once the needs analysis is completed, it is necessary to determine the **nature of capacity-building programmes** suitable for each municipality.

The capacity-building strategy must also define the **roles and responsibilities** of various stakeholders in terms of providing support, oversight, monitoring, evaluation and coordination. The strategy must **provide a predictable and coherent financing plan** that supports complex, lengthy processes of enhancing municipal capacity over the medium to long term. **Objectives and timeframes** of capacity-building programmes should be spelled out. Agreeing on the desired outcomes of capacity development is fundamental for focusing interventions and setting benchmarks for assessing progress along the way.

8.4.2 Contextualising capacity challenges within local government

Consistent with the theoretical background provided above, capacity-building within the context of local government capacity-building or lack thereof is multidimensional and understood differently by various stakeholders. In essence, there is no widely accepted description of what exactly constitutes lack of capacity within local government. According to the constitution capacity is understood to constitute the ability of local government to manage their own affairs, exercise their powers and perform their functions assigned to them in accordance with schedule 4 (B).

In the absence of a standardised depiction of what capacity within local government is composed of, it can be implied that inability to manage own affairs, exercise powers and perform functions represent in broad terms capacity challenges. This is in line with a growing perception among key stakeholders that local government in general is unable to manage its own affairs as well as perform its powers and functions particularly with respect to the delivery of good quality services. The response to these perceptions by bodies responsible for local government is often to attribute the problems to lack of capacity.

Within this light, the discussion below contextualizes capacity challenges facing local government by analysing evidence that bears testimony to the existence of such challenges. The analysis is premised on the understanding that local government is primarily responsible for the delivery of services such as water, electricity, sanitation etc and the associated infrastructure. However, it is acknowledged that prior to these services being delivered, certain systems and processes need to be put in place to provide a platform within which services are rolled out. Among other things such systems and processes include having managerial capacity and support skilled personnel, a planning framework, funding and budgeting thereof, community consultation, decision making by political office bearers etc. Without these measures service delivery is likely to be negatively impacted as a consequence. In other words inability to deliver services in itself does not necessarily constitute a capacity challenge, but rather a manifestation of failure of local government procedure and systems.

8.4.2.1 Causes of Poor capacity within local government

a) Assignment of powers and functions

8

The division of fiscal powers and functions between the three tiers plays a critical role in explaining the extent to which municipalities are able to perform their functions. Currently there are observable asymmetries in the division of powers and functions between categories B or local and C or districts municipalities. Certain category C municipalities are water services authorities while B municipalities collect property rates. In other instances, Category C municipalities, while with limited expenditure responsibilities receive RSC levies or the replacement grant. In the case of electricity, the function is mainly performed by Eskom in mostly rural B municipalities.

Functional asymmetries not only take place between categories of municipalities but also within categories and between spheres. Capacity assessment reports by the Demarcation Board show that the balance of functions within categories of municipalities is not equal. Municipalities tend to emphasise key functions such as water and electricity while neglecting or under-budgeting for other equally important services such as disaster management, parks and libraries etc.

Due to these asymmetries in the division of powers and functions municipalities expenditure responsibilities are not aligned to revenue sources and service delivery needs. Municipalities are not able to generate revenue from electricity, use it for credit control purposes and cross subsidise between services and customer groups. As a result, certain C municipalities sit with a lot of surplus cash while financially needy B municipalities are unable to access the much needed revenue. Furthermore these asymmetries cause distortions in the allocation of revenue and local accountability.

This anomaly although, has a direct effect on service delivery, represent much of an institutional challenge which can be attributed to the authority responsible for local government and not local government itself. In other words the division of powers and function cannot be seen as a capacity challenge but rather a consequence of inadvertent haphazard arrangement of the local intergovernmental fiscal system.

b) Local economy

The size of the local economy impacts on the ability of a municipality to raise revenue. High levels of economic activity enhance business activity, employment and income levels thus increasing the tax and revenue base from which to generate revenue. The opposite effect of low economic activity is prevalence of low income, unemployment or poor households who are less likely to contribute to revenue given the low levels of income and policy which entitles them to free basic services. Table 51 clearly shows that metros and big cities generate a significant proportion of their revenue while rural municipalities rely heavily on transfers for their revenue. This observation is consistent with findings of a recent study undertaken by the Institute for Democracy in South Africa (IDASA). IDASA made an observation that most South Africans are becoming more dependant on government and therefore less likely to contribute to local development through their own actions and initiatives.

Table 51: Economic and social statuses of different categories of municipalities

Municipality	Overall budget (million)	% of own revenue	Reliance on transfer	Total households	% of poor households	Average income
Johannesburg	21.151	83	17	543.063	32	1.973
Nelson Mandela	4.525	82	18	225.912	41	1.256
Rustenburg	1.699	58	42	116.665	46	1.13
Stellenbosch	562	81	19	35.124	17	1.987
Moshaweng	78	27	73	20.281	74	190
Ntambanana	14	-	100	13.844	57	286

Source: (FFC database)

Given the established relationship between low economic activity and lower revenue raising potential it can be argued that the performance of rural municipalities with regard to improving access to services is partly directly caused by inability to generate additional source of revenue.

c) Skilled personnel

(i) Shortage: There is a general lack of technical skilled and experienced personnel to perform key municipal duties. This has impacts on the ability of municipalities to develop credible budgets, financial statements, IDPs and most importantly deliver services. The skills shortages are profound in financial management, municipal planning, engineering, property valuation, project management as well as artisans. A study by the SA institute of civil engineers shows that 79 of the 283 municipalities do not have engineers. In 2007, the Local Government Sector Education and Training Authority (LGSETA) further noted significant gaps in basic literacy and numeracy among municipal officials. Section 57 positions including that of municipal manager, chief financial officer, senior managers are particularly critical to the effective functioning of the municipality. The Table 52 below shows the number of available and filled section 57 positions by province. The Free State, Northern Cape and Limpopo province have the highest vacancy rates of critical section 57 posts.

Table 52: Number of filled and vacant section 57 position by province (2007)

Section 57 positions	Total posts	Total posts filled	% vacant post
Eastern Cape	232	205	11.6
Free State	174	117	32.8
Gauteng	193	170	11.9
Kwa-Zulu Natal	324	293	9.6
Limpopo	190	145	23.7
Mpumalanga	121	110	9.1
Northern Cape	143	105	26.6
North West	152	125	17.8
Western Cape	139	117	15.8
Total	1668	1387	16.8

Source: (Statistics South Africa, 2007)

(ii) Qualified and experienced personnel: A national survey of 278 senior municipal official qualifications undertaken by the Demarcation board in 2005 showed that at least 40 percent of senior municipal managers have no undergraduate degrees. At least 10 percent of those surveyed have financial management qualifications while others have a teaching and legal background. According to LGSETA (2006) 31 percent of municipal managers have qualifications not related to finance, legal, public administration or development. Approximately 28 percent of CFO's do not have finance related qualifications, 35 percent of managers in technical services do not have an engineering related degree while 14 percent of IDP managers do not have an engineering degree. A further concern is that up to 30 percent of managers have less than 5 years experience in local government while 25 percent of municipal managers are acting owing to among other things high staff turnover rate (National Treasury, 2008). This in part attributed to varying conditions of employment between local government and the other spheres.

(iii) Vacancy rate: The 2005/06 Sector Skills Plan (SSP), developed in accordance with the requirements of the Skills Development Act by Local Government Sector Education and Training (LGSETA, 2007) found that all categories of municipalities have significantly high vacancy rates averaging 35 percent coupled with high levels of staff turn over and spend only 84 percent of their approved salary budgets. The report also finds a disproportionately high rate of vacancies among less skilled and less specialized occupations such as elementary and clerical occupations. The overall staff complement of municipalities is only 75, 70 and 78 percent filled for metros and local and district respectively.

d) Governance

Despite the local government transition and progress made with respect to delivery of services municipalities still face formidable challenges relating to good governance. Governance refers to the management of local affairs through exercising political, economic, social and administrative authority. It includes complex networks between local government, other spheres and tiers of government, non-governmental organisations and most importantly the community. The biggest concern relating to local governance includes poor political leadership and interface between political, technical and administrative domains, community participation and legislative compliance. (i)

Political leadership: Councillors are not properly equipped and generally unclear about their roles thus resulting in lack of vision, indecisiveness on critical issues and interference with administrative matters.

(ii) Public participation and local accountability; Lack of public participation and dysfunctional ward committees also constitute the biggest governance problem. The flow of information on council resolutions such as budgets, SDBIPs, IDPs, performance to citizens is generally low or non-existent. This is attributed to lack of proper organisational structure within municipalities and support mechanisms for ward committees to perform their functions. As a result local accountability is compromised. Intergovernmental relations between municipalities and other spheres are also problematic. This is especially evident in the dissonance between the national spatial development perspective, provincial growth and development strategies and municipal integrated development plans. The current fragmentations in the provision of primary and or municipal health care serve as example amongst many

(iii) Legislative Compliance: Municipalities also struggle to apply, comply and enforce legislation and policies governing local government. Part of the reasons explaining non-compliance with legislation include total neglect of the laws by the council and administration, lack of understanding about local government legislations and operations and organisational transformation and restructuring which includes constant introduction of legislations and by laws leading to overregulation and re-skilling. According to CMTP (2008) lack of implementation of policies and strategies is mainly due to a shortage of human resource and skills rather than financial resources. The rate and sequence at which legislations and sector reforms affecting local government are carried out further contributes to non-compliance and poor performance. There is high possibility that municipalities, particularly smaller, are overwhelmed by regulatory reforms such as the MFMA, Municipal Property Rates Act, Municipal fiscal Powers and Functions Bills, restructuring of electricity etc.

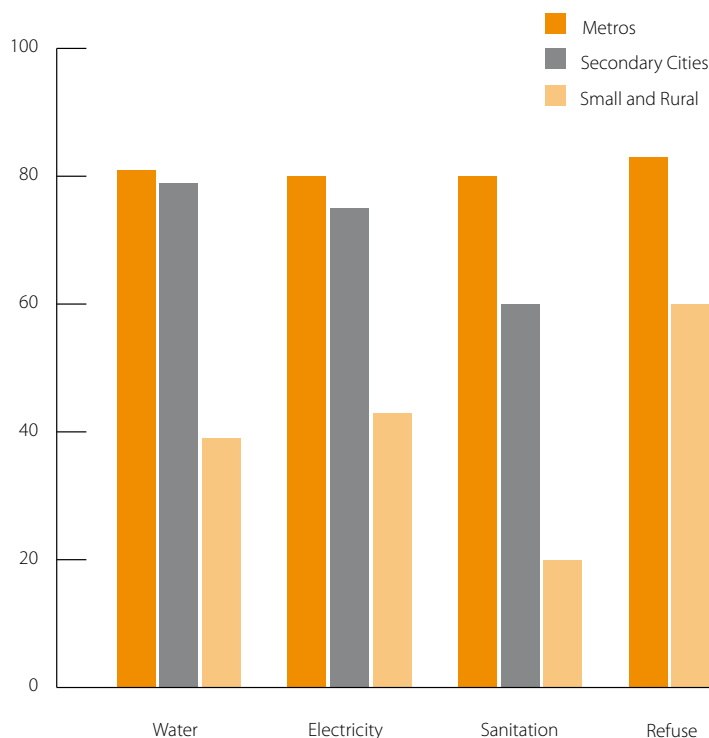
8.4.2.2 Indicators of poor capacity (symptoms)

a) Service delivery

There is compelling evidence to suggest that local government service delivery pursuit is improving. Over a 14 year period starting from 1994 the number of people with access to potable water increased from 59% to 88%. Electricity access increased from 36% to 80% while sanitation increased by 25% to 73%. The number of people using the bucket system in 2007 was estimated at 113 085 from 609 675 in 1994. These improvements were made possible by substantial increases in both the operational and infrastructure transfers of local government from the centre. (The Presidency, 2008)

Nevertheless there remain huge disparities in access to services across different categories of municipalities. These differences manifest widely on a number of aspects such as access to services, provision of Free Basic Services, infrastructure delivery etc. Metropolitan municipalities have generally less difficulties in discharging their functions than their rural counterparts. However, it remains unclear whether low services access levels, demonstrated by the Figure 39 below, within small and rural municipalities is a function of challenges that are immediately related to capacity or not.

Figure 39: Service access by different type of municipality (2006)



Source: (FFC database)

Levels of service access are generally high within metropolitan municipalities and secondary cities in comparison to small and rural municipalities. See Figure 39. Approximately 40 percent of the households have access to water and electricity in small and rural municipalities compared to almost 80 percent in metros and secondary cities. Free Basic Service provision follow similar patterns as the Table 53 below demonstrates.

Table 53: Free basic service access by types of municipalities (2006 and 2007)

Municipality Name	Water		Electricity		Sewerage and sanitation		Solid waste management	
	2006	2007	2006	2007	2006	2007	2006	2007
Johannesburg	1,027,021	1,092,603	512,827	527,000	961,642	1,024,052	1,027,021	1,027,021
Nelson Mandela	89,566	95,526	91,631	95,633	89,566	95,526	89,566	75,396
Rustenburg	3,221	19,692	620	2,510	2,970	2,287	2,970	4,500
Stellenbosch	8,399	8,923	6,200	8,923	8,399	8,923	8,399	8,923
Moshaweng	22,573	23,204	2,695	22,678	0	23,199	0	0
Greater Groblersdal	0	0	518	518	0	0	0	0

Source: (Statistics South Africa, 2007)

b) Service quality

While service coverage has increased over time, the quality of services has been noticeably decreasing. In 2006 a survey of water services authorities, to estimate their compliance with drinking water quality regulations (i.e. with SABS 241-2001), revealed that only 72% were compliant. Most non-metro water services authorities fail to comply with the compulsory national standards for provision of good quality drinking water. A study of 51 wastewater treatments in smaller municipalities in 2006 found that "immediate intervention" is required at approximately 30% of the works in order to avoid crisis situations such as an outbreak of waterborne diseases. The minister of water affairs further reported that water supply to 37% of households was interrupted for more than a day during the 2006/07 year -- mainly for technical reasons rather than non payment (Parliament, 2006).

c) Infrastructure backlogs

Lack of capacity also manifests itself through the growing challenge of eliminating infrastructure and maintenance backlogs (The Presidency, 2008). The CSIR estimates that the current infrastructure backlog (replacement) of the water services infrastructure that is the responsibility of the 170 water services authorities is at least R120 billion while the replacement cost backlogs of electricity distribution infrastructure was in 2004 estimated by the National Energy Regulator (NERSA) to be of the order of R84 billion. One third (R29 billion) attributed to Eskom and the remainder (R55 billion) to municipalities. Clearly the resources required to finance these backlogs far outstrip currently available municipal resources (South African Institute of Civil Engineering, 2006).

Studies undertaken by the Council of Scientific and Industrial Research (CSIR), Institute of Municipal Engineers of Southern Africa (IMESA) and the South African Institute of Civil Engineers (SAICE) show that infrastructure problems are multifaceted and therefore can not only be attributed to fiscal capacity. Apart from huge replacement costs, municipalities across a different spectrum experience problems in strategic planning, asset accounting, and planning, and making financial provision for the improvement and maintenance of infrastructure. These challenges are particularly related to individual, organisational and institutional capacity.

d) Spending capacity

Over a six year period starting from the 2003/04 financial year local government expenditure increased annually by 14 per cent to R128.1 billion for the year ending 2008/09 (National Treasury, 2008). Whereas local government expenditure continues to rise, in many cases it does not immediately translate into increased and good quality services due to inefficiency and ineffectiveness of spending. Firstly, Increased expenditure reflects the fact that most local government assets have reached their projected useful life and are therefore due for refurbishment and replacement. Secondly, rising expenditure also reflects higher than average personnel and administrative overheads and inappropriate service standards. Thirdly, technical and non technical losses such as incorrect billing, non billing and illegal connections represent un-accounted for rising expenditure. The General Household Survey estimate, (2005) that approximately 56, 3 percent of households are not billed at all.

Lastly rising aggregate local government expenditure is to some extent illusive in that, certain municipalities under-spend the allocated resources. This is especially true for indirect infrastructure transfers and capacity-building programs where spending is generally low owing to poor planning on the part of municipalities and national counterparts and stringent reporting and spending conditions attached to grants. Other factors contributing to low absorptive capacity include disjuncture between project implementation and budget timeframes and rigorous spending requirements such as business plans.

e) Planning, budgeting and financial management

(i) Planning; In order to operationalise the Integrated Development Plan (IDP) and spending plans or Service Delivery and Budget Implementation Plan¹ (SDBIP) as commonly referred to municipalities are expected to pass the budget that sets out revenue and expenditure plan for a given financial year. However linkages between planning and budgets as well as creditability of the budgets remain key areas of concern. The most important concern relates to synchronisation or coordination of IDPs with municipal finance, planning timeframes, other municipal operations and intergovernmental plans such as national and provincial priorities as well as growth spatial development plans. Planning timeframe between delivery of certain services is standardised thus resulting in sidestepping of IDP timeframes.

(ii) Budgeting; the number of municipalities with IDPs that are linked to Budgets is significantly small. Out of the 17 large municipalities complying with key budget reforms only 40 percent are able to link budgets with IDPs. Table 54 shows the percentage of municipalities with credible-budgets.² Capital expenditure budgets are generally less credible although gradually improving. The percentage of municipalities with credible operating expenditure and revenue budgets is relatively higher though not satisfactory.

¹ SDBIP sets out individual performance targets by municipalities and provides the link between the IDP and the budget.

² Budget credibility is determined by the deviation of actual outcomes (greater than 20 percent) reported from the original budget.

Table 54: Percentage of municipalities with credible budgets

Budget component	2005/06	2006/07	2007/08
Capital expenditure	29%	38%	45%
Operating expenditure	68%	67%	70%
Operating revenue	72%	73%	73%

Source: (National Treasury, 2008)

The ability or inability of municipalities to develop credible budgets and carry out prudent fiscal and financial management practices is reflected in the Auditor General's audit report. A recent report by the Auditor General shows that a number of municipalities receiving negative audit opinion are extremely high. For the 2006/07 financial year a total of 247 municipal audits were completed, from which 9 percent received adverse opinion, 41 percent received disclaimer of opinion, 28 percent were qualified while 22 percent receive unqualified opinion. An adverse and disclaimer opinion constitutes serious breach of financial controls and therefore warrants intervention in accordance with the requirements of MFMA. Other common audit deficiencies include lack of supporting documentation for financial statements, high rate of expenditure on consultancy fees, poor internal audit controls, gross neglects and non-compliance with legislation, unaccountable use of public resources, good governance and general performance issues.

Financial management and budgeting deficiencies represent in broad terms individual capacity challenges relating to availability of appropriately qualified personnel. While poorly constructed IDPs is a reflection of financial limitation for some municipalities it is also a clear manifestation of strategic planning and business management capacity constraints.

8.4.3 Approaches to capacity-building in South Africa

8.4.3.1 Legislative framework

The legal framework places an obligation on district municipalities, national and provincial government to support and strengthen the capacity of local municipalities in managing their own affairs, exercising and performing their powers and functions. The consolidated legal framework comprises of the following legislation:

- The Constitution (No. 108 of 1996),
- Municipal Systems Act (No. 32 of 2000) ,
- Municipal Finance Management Act (No. 56 of 2003), and
- Sector legislations such as Water Services Act (No. 108 of 1997) and Electricity Regulation Act (No. 4 of 2006) etc.

It should be noted that some of the legislation is not directly concerned with capacity-building, but only intended to facilitate the smooth functioning of the local government system, particularly the organisational, institutional and fiscal environment. As such the entire legislative framework is inadequate because:

- The different pieces of legislation establish overlapping and poorly defined roles and responsibilities of national, provincial and district government to assist municipalities in executing their mandates. There is also a combination and overlap of authority and provider functions placed on each sphere with regard to supporting local municipalities. This is exacerbated by the fact that several national and provincial sector departments are responsible for functions that fall within the Constitution's definition of municipal functions.
- National and provincial governments do not always provide the necessary direction in a number of areas such as the definition of norms, standards and targets, and ideal structures to be modified based on nuanced contextualisation.
- Legislation requires municipalities to build their own capacity, without defining the level or type of capacity at which municipalities must provide for themselves and the conditions under which municipalities fail to build the requisite capacity. These loopholes create negative incentives and will most likely be exploited by municipalities who, with the expectation that national and provincial government will intervene, make limited efforts to build their own capacity.

8.4.3.2 Policy framework

The framework setting the parameters for provision of support to local government consists of two overarching policy documents; (a) the 5-year strategic agenda for local government and (b) the national capacity-building framework (NCBF). The five-year strategic agenda for local government outlines three key priority areas for government spheres and departments to emphasise in assisting municipalities to improve their performance. Such priorities include:

- mainstreaming hands-on support to local government to improve municipal governance, performance and accountability;
- addressing the structure and governance arrangements of the state in order to better strengthen, support and monitor local government;
- refining and strengthening the policy, regulatory and fiscal environment for local government; and
- giving greater attention to enforcement measures (South African Local Government Association, 2007).

Within this framework, each national and provincial sector department should develop its own five-year local government support plan or master plan. Each department must assess the local government capacity needs relevant to its functions, define the capacity support required, identify and structure the resources required, coordinate the rollout of support programmes in consultation with the Department of Provincial and Local Government (DPLG) and, lastly, monitor and evaluate the programmes.

The NCBF provides a set of overarching goals, builds on the foundation of ongoing capacity-building, provides a framework for packaged support in line with government priorities set out in the 5-year strategic agenda for local government, and ensures an enabling environment for capacity support. The primary aim of the NCBF is to maximise the impact of capacity-building programmes on municipalities by 2011, define roles and responsibilities, guide stakeholders towards integrated and targeted capacity-building support for municipalities and develop implementation strategy (Department of Provincial and Local Government, 2008). Through the NCBF, the DDPLG has identified five programme areas to support the implementation of the five-year local government strategic agenda. These programme areas include strengthening leadership and professionalisation of municipalities, hands-on support, non-office based support, strengthening the environment for municipalities to deliver, and strengthening capacity to coordinate and deliver capacity for municipalities intended to assist in prioritising different types of capacity-building interventions and mobilising resources.

The local government capacity-building policy framework gives a clear picture of the intentions of national government in building local government capacity. It is also a clear manifestation that national government acknowledges the challenges currently experienced by local government.

Whereas the policy provides a logical framework and process for building local government capacity, several weaknesses are clear. Firstly, there is no mention of what happens to current capacity programmes that have been introduced under a policy vacuum. Secondly, policies are driven mainly from national government, which often results in institutional 'turf' battles about who is in charge rather than what they should be doing. This requires clarity of who should be doing what. In particular, provinces were identified as needing to play a stronger coordinating role. Provinces need to have some authority in terms of setting minimum standards and broad targets. Lastly, the framework does not emphasise the need to deal with different categories or types of municipalities differently in line with the varying nature of capacity needs.

8.4.3.3 Institutional framework

In terms of the NCBF, each stakeholder is assigned a responsibility for a specific activity. Stakeholders are separated into two: those responsible for managing the capacity-building environment, and those concerned with the provision of capacity-building. Both the national and provincial departments of local government, as well as district municipalities and the South African Local Government Association (SALGA) are described as the key stakeholders responsible for managing the capacity-building environment. National sector departments, non-governmental organisations such as SALGA, the DBSA and professional bodies associations are responsible for providing capacity. According to the NCBF, those responsible for managing the environment will, among other things, coordinate a process of defining the enabling conditions of the environment, establish priority capacity-building needs, define key strategies, mobilise resources, regulate the quality and use of capacity, as well as monitoring and evaluation. On the other hand, capacity-building providers are responsible for identifying key capacity needs, selecting appropriate

modes of intervention, managing the implementation of intervention, as well as monitoring and evaluation of outputs.

8.4.4 Capacity-building assessment

8.4.4.1 Overview of capacity-building

Table 55 below suggests that capacity-building has been on the agenda of both the national and provincial government since the early years of local government transition. Over a 13-year period starting in 1996, a total of 15 local government capacity-building programmes and a few capacity grants have been introduced. Examples of these programmes include Project Viability introduced in 1998 to discourage the culture of non-payment of services among communities. More recently programmes, such as Project Consolidate operated by DPLG to support distressed municipalities and Siyenza Manje overseen by the DBSA focusing on the infrastructure expenditure capabilities of municipalities, have been initiated (Development Bank of Southern Africa, 2008).

There are also a number of national and sector initiatives such as the Joint Initiative on Priority Skill Acquisition (JIPSA), training and information sessions on national policies and acts, implementation of the municipal revenue enhancement programme, deployment of community development workers as well as the Presidency's National Spatial Development Perspective (NSDP). The district application project is intended to improve various aspects of capacity shortages within municipalities. Initiatives such as the Local Government Resource Centre (LGRC) and Local Government Network (LGNET) under the ambit of DBSA further aim to intensify support to municipalities through interconnecting all local government stakeholders into an e-community, which is able to share knowledge and information, and to provide vertical connectivity between the local and the other two spheres of government.

Table 55: Past and recent capacity-building programmes by duration

Capacity programs	Interim Phase					Final Phase										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Masakhane Campaign																
Project Viability																
MSP																
LGTP																
PIMSS																
ISRDP																
URP																
Provincial government																
Districts																
CMTD																
MFMTAP																
Project consolidate																
LGSP																
AFS																
ERNEGYS																
SAACE																
LOGOLA																
PALAMA																
Siyenza manje																
Capacity grants																
FMG																
MSIG																

Source: Own compilation

There are also a number of training institutions, such as the Local Government Sector Education and Training Authority (LGSETA), Public Administration Leadership and Management Academy (PALAMA) formerly SAMDI, Vulindlela Academy run by the DBSA and other private training providers, directly involved in the training of municipal

officials and councillors on an ongoing basis. Training programmes are provided in the form of learnerships, short courses, bursaries and apprenticeship in areas such as Adult Basic Education and Training (ABET), LED, leadership and management as well as administration and finance.

In addition to the programmes outlined above, the local government fiscal framework consisting of the local government equitable share and conditional grants plays an integral role in boosting the overall fiscal capacity. For the 2007/08 financial year, local government's share of nationally raised revenue amounted to R37 billion with a 41%, 37% and 22% split among metros, local and district municipalities respectively (National Treasury, 2008).

8.4.5 Government financing of municipal capacity-building

The three main sources of financing capacity-building are grants, including the financial management grant (FMG), municipal systems improvement grant (MSIG) and restructuring grant (see Table 56), skills levy and donor funds. The restructuring grant was phased into the local government equitable share in the 2007/08 financial year. For the 2007/08 financial year, the three grants were allocated a total of R875 million.

Significant amounts (approximately R190 million in 2006/07) of funding for capacity-building are also derived from the skills levy contributed by municipalities to the Local Government Sector Education and Training Authority (LGSETA) for the training and development of municipal officials (LGSETA, 2007).

A proportion of additional funds come from donor-funded programmes such the United States Agency for International Development's (USAID) local governance support programme (LGSP) and the Development Bank of Southern Africa's (DBSA) Siyenza Manje.

Table 56: Capacity-building transfers to local government 2004/05-2010/11

	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
R million	Outcome			Revised Estimate	Medium-term estimates		
Direct transfers	699	588	610	875	380	500	577
Municipal systems improvement grant	182	200	200	200	200	200	212
Restructuring grant	388	255	265	530	-	-	-
Financial management grant: Municipalities	129	133	145	145	180	300	365
Indirect transfers	69	66	53	53	50	-	-
Financial management grant: DBSA	69	66	53	53	50	-	-
Total	768	654	663	928	430	500	577

Source: National Treasury, 2008

Part of the problem with capacity grants has been the persistent under-spending by municipalities. For the 2007/08 financial year, the FMG was under-spent by 15% whereas MSIG was under-spent by 34%. The persistent under-spending of these grants shows that municipalities are sometimes unaware of what should be done with the funds, which is perhaps due to a lack of proper planning. The most disturbing feature of these grants, with specific reference to the MSIG, is the lack of clearly defined objectives and targets. The grant has been in existence for more than seven years, and there is no concrete evidence to support its impact and or indication of when it will be terminated. Part of the FMG, the municipal finance management technical assistance programme (MFMTAP) which was financed through donor funds, was withdrawn in 2008 even though the problem that it sought to resolve still remains. This is also true for the restructuring grant.

The problem with the skills levy is that municipalities have limited control over the training areas for which the levy can be utilised. It is also not clear whether the levy should be used exclusively for skills development programmes or other non-skills-related capacity-building projects. Donor-funded programmes are specifically problematic in that they are driven by the respective agenda or objectives of donors, which may not be in sync with the priorities of local government. A key example is the consolidated municipal transformation programme (CMTP) funded by the United Kingdom's Department of International Development (DFID), which among other things sought to improve municipal journalism. The single biggest challenge with respect to funding for Siyenza Manje is that it bypasses the Division of Revenue processes and therefore is not accounted for in the total local government receipts for capacity-building.

8.4.6 Performance assessment of local government capacity-building programmes and grants

Measuring performance support in capacity-building is not a straightforward exercise, as it is beset with conceptual and methodological difficulties. One difficulty in measuring performance is that the benefits often associated with capacity-building are not easily quantifiable and, consequently, there is an inordinate preoccupation with impact in the measurement of how capacity-building programmes perform. Ogiogio (2004) argues that impact measures on their own are meaningless when assessing the success of a capacity-building intervention until, for instance, the issue of the ownership of the skills and institutions that generate the impact and the sustainability of such impacts have been addressed. According to Ogiogio, there are three levels of measurement at which capacity should be assessed, namely, the agency level, project level as well as macro level.

a) Agency level measurement

Measurement first takes place at the agency level. The agency must have a capacity-development mandate and sufficient resources to support the capacity-building process. Assessment areas at this level should include programme development, appraisal, approval, implementation, monitoring and supervision and evaluation.

According to the policy framework set out above, the institutional framework emphasises a clear separation of responsibilities between those responsible for managing and those providing capacity. In this way, those responsible for managing capacity will be able to assess, monitor and evaluate the performance of capacity-building providers. The current approach to capacity-building is such that programme development, appraisal, implementation and monitoring are fragmented and uncoordinated across various institutions including DPLG, SALGA, National Treasury, sector departments, donor agencies, private training providers and DBSA.

Weak coordination between a large and growing number of programmes at the individual and organisational levels remains a major problem in building capacity. One of the major reasons why coordination has been difficult is the lack of, or failure to implement, an overall policy framework into which different providers fit in. Coordination is best undertaken within the context of a framework with clear targets. In the absence of this, coordination can become an end in itself, and hence be ineffective. Unfortunately the recently developed NCBF is silent on targets.

Lack of coordination has tended to create a fragmented and incomplete environment for strengthening municipal capacity and has led to sub-optimal outcomes relative to the level of support that has been provided. An underlying problem is the fragmentation of accountability, financing, policy monitoring and evaluation for specific programmes and municipal capacity as a whole. In many instances this resulted in overlapping operations in a specific municipality. An example of this is the Greater Sekhukhune District Municipality (GSDM), which at a certain point during 2006 was the recipient of more than five capacity-building programmes.

In the absence of streamlined coordination structures, each programme tends to establish their own structures, which results in duplication. Although their intent is similar, various capacity programmes have different monitoring and evaluation arrangements and reporting requirements. This creates an administrative burden for municipalities, which may have to complete several, similar monthly quantitative and narrative reports for different donors. A further challenge is that most programmes are not independently evaluated and linked and they are not evaluated against the financial and non-financial objectives of municipal performance. Such criteria should be used in motivating for the continued existence of the programme and to stimulate analysis of why some municipalities continue to experience distress.

b) Project level measurement

Measurement next takes place at a project level where indicators such as adequacy, effectiveness and efficiency of inputs are considered. Indicators for measuring effectiveness and efficiency of inputs include the quality of consultation during the project's development, funding, quality of capacity needs assessments, phase of project life cycle, timelines, and extent of compliance with the grant agreement, and so on.

Current evidence points to significant difficulties in respect of project level measurement indicators. There are clear weaknesses in the consultation process and poor assessment of the other indicators. A DPLG-commissioned study found that municipalities are disturbed by what they consider to be a top-down approach, which often treats them as passive recipients (Department of Provincial Local Government, 2006). For example, with the integrated sustainable rural development programme (ISRDP) national government has commissioned economic assessments for the rural

nodes,³ even though some of the municipalities such as Sekhukhune had already commissioned their own. The municipalities concerned were not consulted and believe that such practices create unnecessary duplication and confusion. Capacity assessments should be more responsive to the unique needs of a municipality and be endorsed, or agreed to, by municipalities to avoid rejection or the perception that programmes are being imposed. Voluntary participation by municipalities is more effective than imposed programmes by higher levels of government.

There are a number of tools used to assess the capacity needs of municipalities and/or to classify them into different categories for targeting purposes. Such tools include Project Consolidate assessments and evaluations, budget sizes, under-spending on the municipal infrastructure grant (MIG), IDP credibility assessments, municipal demarcation board assessments, workplace skills plans and LGSETA sector skill plans. In terms of the Skills Development Act, each Sector Education and Training Authority (SETA) is obliged to prepare a capacity assessment or sector skills plan (SSP), updated annually for submission to both DPLG and the Department of Labour. These tools are further used for determining a municipality's eligibility for a particular programme. However, certain programmes such as Siyenza Manje have their own pre-deployment assessment tools, while others are ad hoc interventions simply responding to a crisis. The Institute of Municipal Financial Officers' annual financial statements (AFS) programme would be a case in point.

Due to the duplication of assessment criteria, the findings are also replicated and, when combined, do not provide an integrated understanding of municipal capacity constraints and the specific interventions required. There also tends to be a misalignment between assessment criteria and the objectives of capacity-building programmes, particularly when selecting municipalities. For example, some of the profiling indicators used for selecting Project Consolidate municipalities included, among other things, unemployment rate and poverty levels whereas the main aim of the programme was to unblock service delivery through short-term deployment of experts. Siyenza Manje used under-spending on the MIG allocations (less than 30% by December 2007) for selecting municipalities. Selection of municipalities should be based on a set of relevant indicators that define whether a municipality requires support or not. These indicators should be linked to overall municipal key performance indicators to ascertain the stage at which a municipality finds itself, in terms of capacity needs and ability to deliver on its mandate. The effectiveness of this approach will depend on the functioning of the performance management system. Without adequate data on municipal performance, it is very difficult to develop a relevant municipal support and intervention programme.

The upshot of this analysis is an observed tendency by government departments to ignore existing and official capacity assessments such as the LGSETA, opting to perform their own independent annual assessments. The DPLG is currently conducting a skills audit of all municipalities, which essentially constitutes duplication.

c) Macro level measurement

Measurement also needs to take place at a broader macro level, in addition to the agency and project levels. Macro-level measurement relates to the transformation of inputs through projects and programmes into outputs and outcomes. The relevant indicators at this level will consist of the relevance/appropriateness, effectiveness, efficiency, ownership, impact and sustainability of the intervention.

The question of whether existing capacity-building programmes are well suited to reducing or eliminating the capacity constraints currently experienced by local government is critical. This question is particularly important in that many programmes have generally been focused on the supply side (in other words, what the support provider identifies the problems being faced by municipalities, often in the context of urgency for delivery) with little consideration of the demand side (i.e. identified capacity needs of municipalities). This has tended to result in quick wins that are often in contradiction with the principles of capacity-building, which encourages sustainable solutions through a focus on all aspects of capacity including institutional, fiscal, individual and organisational.

The matrix in Table 57 plots capacity-building programmes against municipal capacity constraints and shows that most programmes are geared towards service and infrastructure delivery, financial management as well as skills transfer. While it may be concluded that many of these programmes are suited to the capacity constraints facing municipalities, it is a concern that they do not deal holistically with the challenges due to weaknesses in assessing capacity, defining timelines, coordinating and selecting municipalities. Municipal capacity constraints have an inherent chain of causation suggesting that dealing with one

³ The 13 most severely impoverished municipalities in South Africa declared in 2001, as part of the Presidential initiative to push back the frontiers of poverty and under-development in rural areas.

Table 57: Capacity-building programmes against municipal capacity constraints

Capacity constraint / Capacity programme	Masakhane Campaign	Project Viability	MSP	LGTP	PIMSS	ISRDP	URP	Districts	CMTF	MFMTPAP	Project Consolidate	LGSP	AFS	ERNEGYS	SAACE	LOGOLA	PALAMA	Styenza manje	MIU	TAU	FMG	MSIG
Service delivery						✓	✓		✓		✓							✓				
Local economy and demography						✓	✓															
Infrastructure delivery and challenges									✓		✓	✓		✓				✓	✓	✓		
Powers and functions											✓											
Spending capacity																						
Expenditure co ordination and prioritisation					✓							✓										
Financial management and budgeting			✓			✓			✓	✓			✓								✓	
Availability of skilled personnel											✓			✓				✓			✓	
Governance issues	✓			✓																		✓
Pricing of services																						
Non Payment of services		✓																				
Borrowing																						
No of munics	all	all							8	42	134						179					

Source: Own compilation

problem while neglecting the source can be futile. This requires that programmes need not only be appropriate but properly sequenced as well.

The extracts provided in Table 58 suggest that the impact of capacity programmes is effective in enhancing service delivery within local government. However the contrary view is that progress has only been made on mobilising various role-players to provide hands-on support, but it remains too early to evaluate the overall effectiveness of these programmes. It should also be noted that these programmes are not independently evaluated and therefore run the risk of being over-rated. The other challenge is that the success of these programmes is mostly dependent on the skills of deployed experts or service delivery facilitators (SDFs). In many cases municipalities fail to sustain the success factors introduced by SDFs at the end of their deployment terms. In fact one of the perspectives held by municipalities on SDFs is that 'they fix the problems for a few months, only to return to the same problems once they leave'.

Table 58: Impact of capacity-building programmes (narrative reports)

Siyenza Manje	CMTF	Project Consolidate
The Siyenza Manje programme deployed experts in eight provinces at provincial, district and local municipal level.	Initially, the municipality did not have a good understanding of the IDP and LED; key positions were lacking capacity and most community projects were in shambles; management procedures, key policies and integration between planning and execution also had significant room for improvement.	Some 281 experts and professionals had been deployed to 85 out of 139 Project Consolidate municipalities.
A total of 97 experts were deployed, of which 16 were young professionals thus extending the coverage of the programme to 86 municipalities.	Over the past few years, there has been a clear improvement in the understanding of the IDP, planning, project prioritisation and budgeting, as well as overall project management.	Much progress has been reported in the areas of technical, financial, planning, project management, accelerating service delivery through the unblocking of blocked projects, the establishment of financial systems, addressing audit queries and improving revenue income.
In the targeted municipalities, 471 projects are in the process of being implemented and 97 projects were completed.	A higher priority is being given to the local economy, especially around integration with the district municipality and private sector, and this results in much better planning.	
Siyenza Manje interventions augmented municipal and other government efforts and nearly 178 000 households were provided with access to water and about 126 000 with access to sanitation. Nearly 70 000 bucket toilets were replaced.	One of the latest initiatives at the municipality was the development of a GIS to help manage municipal affairs.	

Source: DBSA, 2008; CMTF, 2008; DPLG, 2008.

As was mentioned elsewhere, the ownership of capacity-building programmes is fragmented across various national departments and agencies. This is contrary to one of the principles of capacity-building, which advocates local ownership of capacity-building. Sustainability of capacity programmes is also questionable given that many programmes are introduced and discontinued within a short period of time. Capacity-building should be a long-term adaptation process with sustainable outcomes that is not rushed, but at the same time shows visible, quick wins that deepens commitment for change early in the process.

8.4.6.1 Timelines

The average time frame for a capacity-building programme is between one and three years. This period is considered to be too short for programmes to make a meaningful impact. "Programmes that are shorter than two years and implemented in the context of rapid delivery requirements result in a focus on gap-filling rather than capacity-building. This results in a perpetual cycle of new programmes redoing the same things and never quite solving the problems they set out to" (DPLG, 2006). Other programmes such as the ISRDP and Urban Renewal Programme (URP) have been in existence for indefinite periods, to the extent that they are currently seen as permanent feature of the system; yet their impact is minimal as they are confined to a specific area within a municipality or are even non-existent.

This practice is also evident in more recent programmes, such as Siyenza Manje, which have been introduced without any specific timeline. The danger of this approach is that it creates an expectation of long-term support or assistance on the part of municipality. Second, it exposes certain municipalities to the risk of being overly dependent

on grant support. Since the eligibility criteria of such grants require a lack of capacity, a perverse incentive to remain under-capacitated may be established. Programmes that are introduced without pre-determined timeframes and that have unclear problem statements or objectives are unable to have long-term impacts and are difficult to evaluate and hence terminate. An 'exit strategy' needs to be included in the initial plan and not at the end as an after-thought. In addition, an 'after-care' phase needs to be included to ensure that the municipality maintains its improved capabilities. In essence, exit should only be considered once an evaluation indicates that the issues have been resolved.

Certain programmes are also merged or collapsed into other programmes (for example, the local government transformation programme (LGTP), CMTP and Project Consolidate into Siyenza Manje) making it difficult to ascertain both the timeframe and the impact. While merging programmes reduces the administrative burden on municipalities being supported, a concern is that capacity programmes continue for long periods under different banners but all claiming credit for the same outcomes. The upshot of this analysis is that care should be taken when integrating different programmes, and the timeframes for support should depend on 'the type of disease being treated' and not only be time bound.

8.5. Conclusion and recommendations

8.5.1 Conclusion

The nature of capacity constraints experienced by municipalities requires various forms of intervention. Various challenges faced by local government are directly linked to the different aspects of capacity but it remains unclear whether these challenges, such as availability of skilled personnel and high staff turnover, are self-induced or genuinely related to the functioning of local government. On the one hand there are institutional challenges related to policy and governance, while on the other, there are organisational challenges related to effective management and availability of skilled personnel.

The legislative, policy and institutional prescripts provide a framework within which capacity-building is undertaken. However, there are various gaps within these frameworks that affect the manner in which capacity programmes are carried out. The legislation assigns shared, but undefined, roles and responsibilities in other spheres of government to assist in building the capacity of local government. There is also no practical separation of responsibilities between capacity-building authorities and capacity-building providers as envisaged in the policy. The result is a capacity-building process which is fragmented and uncoordinated across numerous relevant stakeholders.

Coordination, or lack thereof, is clearly visible during programme development and design, financing, monitoring and evaluation as well as capacity needs assessment stages. This leads to the introduction of various intervention measures which are less responsive to the nature of challenges being experienced by different categories and types of municipalities. Most programmes focus directly on facilitating service delivery and project implementation, and not on the underlying causes of the capacity. The current practice tends to emphasise the performance of functions on behalf of municipalities rather than providing strategic direction on how municipalities should go about performing their functions. A singular focus on implementing sophisticated programmes or interventions on a weak institutional, economic and managerial base almost invariably leads to a return to original problems. This highlights the need to focus on the basics.

8.5.2 Recommendations

With respect to local government capacity-building, the chapter recommends that:

1. For their own improvement, local government should be central to setting the agenda for capacity-building programmes. This recognises the fact that municipalities remain accountable for their own performance until such time as section 139 of the Constitution is invoked. To achieve this, the Commission further recommends that:
 - a) Capacity programmes should be informed by a local government performance management system which is driven by their Key Performance Indicators.
 - b) Prior to capacity programmes being developed and implemented at a local government level, a comprehensive assessment and design process should be undertaken.

- c) Capacity-development programmes should be aligned to each stage of the developmental transition of municipalities. There should be differentiated approaches in building capacity.
 - d) Capacity-development programmes should be comprehensive and not only focus on training of personnel and deployment of experts within municipalities. They must also focus on other organisational, fiscal and institutional constraints that impact on the overall performance of municipalities.
2. The government must establish an intergovernmental wide framework for understanding what constitutes a lack of capacity within the context of local government.
 3. When capacity-building interventions are undertaken with respect to different functional areas, there should be a clear separation of responsibilities, as well as coherent interface, between the service authority and the service providers.
 4. It is also recommended that replication of poorly defined roles and responsibilities between national, provincial and district municipalities in the policy framework should be eliminated. This is necessary to create clear lines of responsibility and accountability for spheres of government or sector departments over their capacity-building roles for local government.
 5. Each capacity-building programme must have a clear outline of measurable objectives, targets and timelines. These must detail conditions under which a programme can be withdrawn from a respective municipality and, following a detailed monitoring and evaluation of success factors and failures, with possible suggestions for sustaining the programme. The method of implementing capacity programmes should be changed from a standard stop-gap package to a more unique incremental solution focusing on the identified problems within the municipality and identifying key leverage points where capacity programmes can make a difference.
 6. A variety of grant instruments should be used to address different capacity challenges within different functional areas. Such grants should only be devolved to sector departments once they have demonstrated capacity to manage effectively such grants and capacity programmes in an IGR system. The Commission further recommends that appropriations for Siyenza Manje should be allocated through the Division of Revenue like other capacity grants. This will promote order, transparency and accountability.

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8.6.2 List of other publications produced by project

Annual Submission for 2010/11 Division of Revenue

For an Equitable Sharing of National Revenue

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ISBN: 978-0-621-38791-9
RP: 182/2009