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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AMSA	Amended Municipal Systems Act
APF	Adaptation Policy Framework
ASD	Alternative Service Delivery
AsgISA	Accelerated and Shared Growth Initiative for South Africa
BAU	Business As Usual
BUS	Business and Management
CAC	Command and Control
CAT	Catastrophe (as in Catastrophe bonds)
CBA	Cost Benefit Analysis
CBO	Community-based Organisation
CBWM	Community-based Waste Management
CDM	Clean Development Mechanisms
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CER	Certified Emission Reduction
CES	Constant Elasticity of Substitution
CGE	Computable General Equilibrium
CHET	Centre for Higher Education Transformation
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CSR	Corporate Social Responsibility
DAFF	Department of Agriculture, Forestry and Fisheries
DBSA	Development Bank of Southern Africa
DCoG	Department of Cooperative Governance
DEA	Department of Environmental Affairs
DG	Director General
DMA	Disaster Management Act
DoBE	Department of Basic Education
DoC	Department of Communications
DoE	Department of Education
DoHET	Department of Higher Education and Training
DPLG	Department of Local Government
DRMC	Disaster Relief Management Centres
DSD	Department of Social Development
DST	Department of Science and Technology

DWAF	Department Of Water Affairs and Forestry
ECA	Environmental Conservation Act (Act 73 of 1989)
ECD	Early Childhood Development
EDI	Electricity Distribution Industry
EI	Economic Instrument
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EPA	United States Environmental Protection Agency
EPWP	Expanded Public Works Programme
ESTA	Extension of Security and Tenure Act
FBS	Free Basic Services
FCA	Full Cost Accounting
FEMIS	Further Education Management Information System
FET	Further Education and Training
FFC	Financial and Fiscal Commission
FFW	Food For Work
FRA	Fund-Raising Act
FTE	Full Time Equivalent
GBV	Gender-Based Violence
GCM	Global Climate Model
GDP	Gross Domestic Product
GEAR	Growth Employment and Redistribution
GFP	Gender Focal Person
GHG	Greenhouse Gases
GIS	Geographic Information Systems
GRB	Gender-Responsive Budgeting
GRID	Global Resource Information Database
GVA	Gross Value Add
HDA	Housing Development Agency
HEMIS	Higher Education Management Information System
HIV	Human Immunodeficiency Virus
HR	Human Resources
HRD	Human Resource Development
ICASA	Independent Communications Authority of South Africa
ICT	Information, Communication and Technology
IDASA	Institute for A Democratic Alternative for South Africa.
IDP	Integrated Development Plan
IEM	Integrated Environmental Management
IGDP	Integrated Growth and Development Plan
IGFR	Intergovernmental Fiscal Relations
IMF	International Monetary Fund

IP&WM	Integrated Pollution and Waste Management
IPC	Integrated Pollution Control
IPCC	Intergovernmental Panel on Climate Change
IWMP	Integrated Waste Management Plan
IWMSA	Institute of Waste Management of Southern Africa
KPI	Key Performance Indicators
KZN	KwaZulu-Natal
LED	Local Economic Development
LES	Local Equitable Share
LGSETA	Local Government Sector Education and Training Authority
MDB	Municipal Demarcation Board
MDG	Millennium Development Goals
MDMC	Municipal Disaster Management Centre
MFMA	Municipal Finance Management Act (Act 56 Of 2003)
MIG	Municipal Infrastructure Grant
MISA	Municipal Infrastructure Support Agency
MSA	Municipal Systems Act (Act 32 Of 2000)
MSW	Municipal Solid Waste
MSWM	Municipal Solid Waste Management
MT/a	Metric tons per annum
MTBPS	Medium Term Budget Policy Statement
MTEF	Medium Term Expenditure Framework
MTSF	Medium Term Strategic Framework
NCCF	National Calamity Central Fund
NDMA	National Disaster Management Authority
NDMC	National Disaster Management Centres
NDMF	National Disaster Management Framework
NDP	National Development Plan
NDRA	National Disaster Relief Arrangements
NEMA	National Environmental Management Act (Act 107 Of 1998)
NEMWA	National Environmental Management Waste Act (59 Of 2008)
NGO	Non-government Organisation
NGP	New Growth Path
NHI	National Health Insurance
NIDS	National Income Dynamics Study
NLDF	National Lottery Distribution Trust Fund
NDMC	National Disaster Management Centres
NPC	National Planning Commission
NPM	New Public Management
NQF	National Qualifications Framework

NSFAS	National Student Financial Aid Scheme
NWMS	National Waste Management Strategy
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary Least Squares
PALAMA	Public Administration Leadership and Management Academy
PDMC	Provincial Disaster Management Centre
PFMA	Public Finance Management Act
PPP	Public-Private Partnership
PRASA	Paper Recycling Association of South Africa
PSNP	Productive Safety Net Programme
RED	Regional Electricity Distributor
RWSI	Relative Water Stress Index
SADC	Southern African Development Community
SALGA	South African Local Government Association
SAM	Social Accounting Matrix
SANBI	South African National Biodiversity Institute
SANS	South African National Standards
SASSA	South African Social Security Agency
SAWIS	South African Waste Information System
SDMA	State Disaster Management Authority
SET	Science and Technology
SETA	Sector Education and Training Authority
SMMES	Small, Medium and Micro Enterprises
SO ₂	Sulphur Dioxide
SPR	Single Purpose Reinsurer
SPU	Special Programmes Unit
SPV	Special Purpose Vehicle
StatsSA	Statistics South Africa
TDF	Tyre-Derived Fuel
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention for Climate Change
Unisa	University of South Africa
USEPA	United States Environment Protection Agency
VAT	Value-added Tax
WBI	Women's Budget Initiative
WBR	Waste By Rail
WHO	World Health Organisation
WMP	Waste Minimisation Programme
WSSD	World Summit on Sustainable Development

FOREWORD AND EDITORIAL

The Financial and Fiscal Commission (the Commission) provides independent, impartial advice and recommendations on Intergovernmental Fiscal Relations (IGFR), 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 provides information to all organs of state to help them make informed decisions about complex fiscal issues. In this respect, one of the Commission's main objectives is to help inform the following year's budget by making recommendations on the division of revenue among the three spheres of government and to support government's policy-making on IGFR. This is done by submitting annually to Parliament an advisory document that summarises the recommendations, which the executive should take into account when crafting the next year's 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. This volume of technical chapters is published as a companion document to the Submission for the Division of Revenue 2013/14 that the Commission tabled with Parliament in May 2012.

South Africa remains one of the most unequal countries in the world today. The symptoms of poverty and inequality are apparent, especially in health and educational outcomes, settlement patterns and vulnerability to crime and environmental disasters. To gain greater insights into how the IGFR policy broadly affects economic development and in particular the equitable distribution of public resources, the theme of this Technical Report is:

“Moving People Out of Poverty: Supporting Innovation in Intergovernmental Financing”

Collectively, the chapters in this Technical Report argue that the distribution of competencies between the different spheres and levels of government may have remarkable effects on economic growth and development. Despite tensions between growth and inclusion, the report finds that growth can lead to increased economic opportunities for the poor and a reduction in inequality. The report specifically explores what local, provincial and national governments might do to strengthen economic development and increase employment. The focus is on the IGFR system's instruments that contribute to economic development (of regions) and the transmission mechanisms, and how they unblock structural impediments towards inclusive growth. When looking specifically at the knowledge economy, a key challenge for the intergovernmental system is that the emerging functional economic regions will typically not match the administrative geographic jurisdictions (such as municipalities and provinces) but transcend them in ways that will change dynamically over time. In all this, the aim is to investigate how the different elements of the IGFR system, and the different spheres of government, can be used efficiently to address inclusive growth and stimulate innovation.

The Technical Report is divided into three parts:

Part 1: Supporting inclusive growth: jobs, knowledge and regional development

Part 2: Climate change and environmental sustainability: opportunities and risks for inclusive growth and innovation

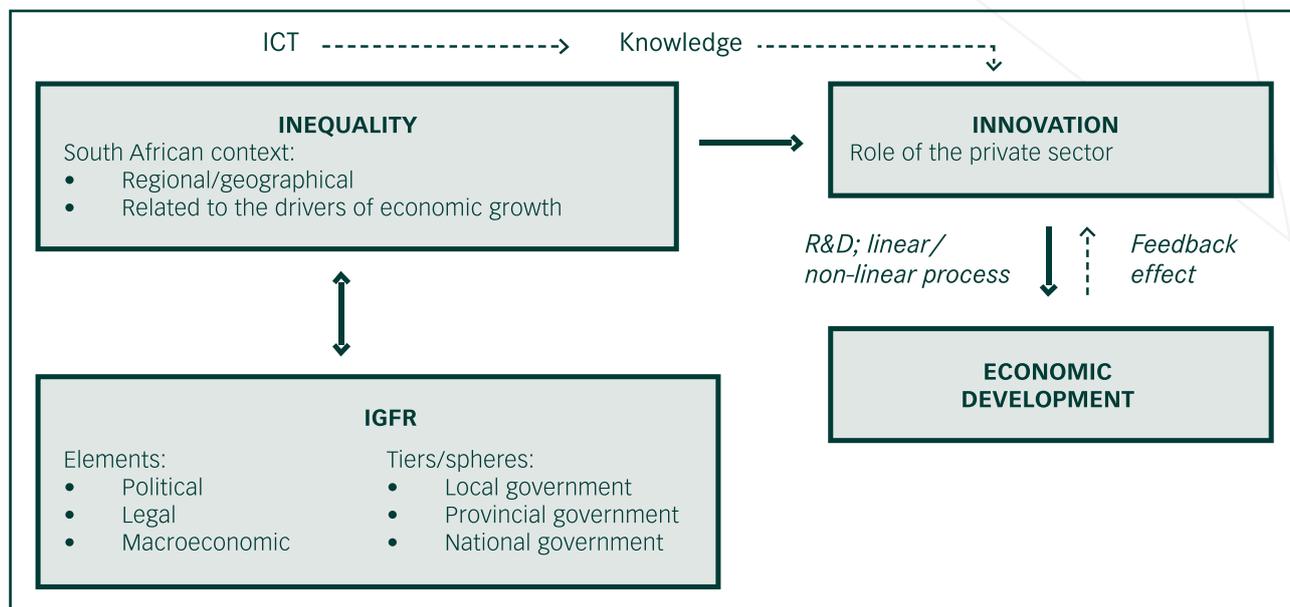
Part 3: Institutional development for inclusive growth and innovation.

A unifying theme underpinning the three parts is the role of innovation and the knowledge economy in facilitating inclusive development. This is organised around two thematic focuses: (i) enhancing the framework for sub-national development and innovation, and (ii) facilitating growth with jobs.

The report explores specifically unemployment in general and that of the youth in particular. One way to move people out of poverty is to ensure that the IGFR system supports job creation and regional development. Since the poor are disproportionately affected by disasters and climate change, a pro-poor IGFR system should mitigate this risk. Finally, the poor also rely mainly on public services. Therefore, they are the hardest hit if the capacities of all spheres of government are not sufficient to ensure that grant allocations etc. are converted into effective service delivery to those who need them most. Hence, the need is to focus on institutional development and innovation. Gender and capacity enhancement is a cross-cutting theme, with an emphasis on women's economic empowerment. Figure 0.1 maps the

arguments that trace the flows of fiscal transfers, capital and technology through the intergovernmental and sector budgeting on economic progress.

Figure 0.1. The Role of IGFR in the innovation process: implications for growth and inequality¹



The Technical Report consists of 10 chapters and brings together papers that focus on major cross-cutting issues, such as job creation, growth, capacity, gender and climate change, and specific case studies.

Chapter 1 points out that South Africa is trapped in a cycle of modest growth, high inequality and record unemployment. With unemployment at unprecedented levels, the stakes are high. As the main weapon at government’s disposal, fiscal policy is where the battle against very high unemployment in South Africa will be won (or lost). Government has put in place a number of employment and training policies, including reinforcing social nets and scaling up resources for active labour market policies aimed at helping job seekers find work. Significant injections of capital, as part of stimulus packages, have led to job creation (opportunities) at the local level both in the public and private sectors. By examining a broad range of policy approaches designed to reduce unemployment, this study helps to bring forward the frontiers of knowledge and develop the capacities of policy-makers to design and implement innovative policy initiatives. It provides a set of key principles for action, summarising findings from analysis based on detailed economy-wide modelling.

Chapter 2 highlights key issues to consider regarding the financing of e-education in South Africa, in light of the forthcoming ten year anniversary of the *White Paper on e-Education: Transforming Learning and Teaching through Information and Communication Technologies* (ICTs). The chapter presents an overview of key issues in financing e-education and lays the foundation for further research to be conducted for the next Annual Submission (2014–2015). As the world is shifting to a knowledge-based economy, South Africa’s ability to promote inclusive growth depends on producing successive generations of well-educated young people contributing to socio-economic development. A South African society with a large well-educated population will overcome more easily the many obstacles to social and economic equality experienced by the majority of households. One of many approaches to building the necessary long-term capacity will be e-education, which uses ICT to enhance the quality of learning and teaching. The result is potentially greater completion rates and better educational outcomes, as learners can have access to a more complex knowledge base and can engage in more self-learning, with the guidance of teachers.

Chapter 3 explores higher education financing. It argues that a key lever to new growth is creating a well-established, good quality post-school education system, so that the further and higher education sectors improve their performance significantly in the next two decades. Improving the quality of academic throughput and research and innovation output can introduce greater added value and higher employment into all sectors of the economy, and also potentially contribute

¹ Note that the arrow between the inequality box and the IGFR box can be bi-directional. While the IGFR can influence inequality, inequality has also helped shaped the objectives and modalities of the IGFR

to long-term poverty reduction and development. South Africa must transition from a low added-value economy to a more knowledge-intensive economy that combines low-, medium- and high-knowledge intensive productive activity in order to increase the proportion of medium to high income jobs. Such a transition requires a strong, adequately funded post-school education system, comprising colleges, vocational institutions and universities.

Chapter 4 examines the impact of climate change on South Africa's rural areas and begins by assessing the impact of climate change on agricultural productivity. It then looks at the vulnerability of rural municipalities to climate change and examines a number of instruments that can be used to build resilience to climate change in rural areas. The findings imply that mixed farming will strengthen the resilience of farmers and that the use of adaptation strategies, such as fertilisers, pesticides and dips and access to insurance, would be advisable to reduce the risks. The chapter finds that overall adaptive capacity is highest for the more developed metropolitan municipalities and for most of the south-western municipalities. Adaptive capacity is particularly low in the eastern half of the Eastern Cape and in northern KwaZulu-Natal, as well as parts of Limpopo and North West Province. Overall vulnerability is highest in the eastern half of the country, particularly in areas corresponding to former homeland areas, while most municipalities in the western half of the country as well as several in Gauteng and Mpumalanga are comparatively resilient. Rural municipalities (type B4), as a group, are significantly more vulnerable than other types of non-metro municipalities. The differences between the average vulnerability scores of other types of municipalities are not significant. The chapter also examines some of the adaptation measures required to improve the resilience of vulnerable rural municipalities, as well as what fiscal and financial measures could be used to achieve resilience.

Chapter 5 points out that South Africa is prone to climate-related hazards, such as floods, fires, gales force winds and snowfalls. Municipalities in South Africa, specifically districts municipalities, are having difficulties implementing the provisions of the *Disaster Management Act* (No 57 of 2002) and the guidelines provided in the *National Disaster Management Framework* (2005). One of the main reasons for this is a lack of funding (or a lack of understanding of funding allocation) by national and provincial governments. Municipalities also fail to make provision for such funds in their budgets and, in some cases, allege that the national government has provided them with an unfunded mandate. The reality is that, instead of improving disaster risk reduction within the local sphere of government, the lack of policy implementation leads to higher levels of vulnerability and increases the likelihood of hazardous occurrences leading to disasters. The purpose of this chapter is to provide answers to questions raised by these challenges. The questions include: What are the problems associated with current disaster risk management funding mechanism? What are the feasible alternative funding mechanisms for disaster risk reduction in South Africa? Are the institutional, policy and legislative frameworks for funding disaster risk management and possible disasters adequate and effective in South Africa? Is there a space for risk sharing and public-private partnership? Qualitative research and a literature review were used as the basis for developing a new model for disaster risk management funding in South Africa. The model includes both disaster reduction and disaster relief and recovery components.

Chapter 6 argues that the majority of municipalities and cities in South Africa face serious economic, social and environmental challenges related to solid waste management. Research shows that, while the intent is good, government needs to implement better, well thought through approaches to create jobs and employment in the waste service sector. Through the poverty alleviation fund system, government has wasted money and resources on events such as 'clean-up campaigns' and on funding small recycling centers in rural areas, which are not linked to larger markets. The report calls upon all spheres of government to take a radically different approach to waste management, as laid out in the *National Waste Management Strategy* (NWMS) that was promulgated in terms of the *National Environmental Management: Waste Act* (No 58 of 2009). The NWMS mentions the need for financial mechanisms but does not (and is not intended to) provide any details. The chapter explores some of the options available to trigger sustainable financing of waste management in South Africa. These options require further and detailed research before concrete and sound policy decisions can be made. The chapter recommends introducing and implementing economic instruments (EI), to complement the existing control and command (CAC) framework, and ensuring that the private and social costs of waste generation are covered. Funding should be directed towards developing and operating infrastructure for alternative waste management options, such as recycling, reuse, resource recovery, and treatment, which offer higher cost benefits than traditional, economically and environmentally unsustainable landfill sites. Government must oversee municipal financial accounting, to prioritise and plan for waste management, ensure that a full cost accounting (FCA) approach is implemented and that integrated waste management plans include a cost benefit analysis (CBA) of the entire waste management system.

The overriding question of Chapter 7 is whether or not the distribution of competencies among the different spheres of government has an impact on economic growth. The literature has not yet addressed the importance of assigning decision-making competencies for economic growth in South Africa. Hence, this chapter aims to fill the gap by questioning whether South African provinces and district municipalities play a useful role in promoting economic growth and, if so, in what way (i.e. through revenue assignment, expenditure assignment or both). Revenue and expenditure assignments

are important pillars of the IGFR system and for fiscal decentralisation, both of which have many dimensions. The chapter focuses on economic growth, an objective that the South African government is (and has been for some time) strongly pursuing. The empirical analysis uses South African provincial-level and municipal-level data in a modified endogenous growth model.

According to Chapter 8, municipalities find themselves in a difficult position, in part because of persistent backlogs in access to basic services, limited financial resources and poor capacity. Attempts to address some of these challenges and to accelerate service delivery have seen government take a greater interest in the way in which services are delivered. The result has been an increase in the number of agencies and other alternative service delivery (ASD) arrangements, all aimed at reversing poor service delivery performance and facilitating economic and social development in municipalities. South African public policy does not have a diagnostic tool or set of principles against which policy and decision-makers can evaluate ASD arrangements. Drawing from international best practice, this chapter recommends a set of principles that government ought to consider when shifting away from traditional bureaucratic-driven service delivery.

Chapter 9 quantifies the amount of public funds dedicated to local government capacity building since 2000, assesses whether the various spheres of government are playing their required roles in building capacity at local government level (as envisaged by the legislative framework) and critically considers government's approach to capacity building in light of Outcome 9. Primary and secondary data and research were collected and analysed. The chapter makes recommendations on alternative/complementary intergovernmental measures that will assist in minimising the capacity challenge.

The Technical Report concludes with Chapter 10 that examines gender-responsive budgeting (GRB). GRB is an instrument that seeks an efficient and equitable distribution of resources based on the needs of different gender groups in society. In many respects gender-sensitive budgets enhance gender equality and economic development. In South Africa, gender budgeting at national level dates back to 1995. However, it is not clear how government gender commitments are translated into fiscal commitments at sub-national level. From an equity point of view, mainstreaming gender budgets is needed at local level, where gender disparities in service delivery are more evident. This chapter evaluates gender budgeting in the South African local government sector, reviewing 30 municipalities' IDPs for their gender sensitivity. In addition, the gender responsiveness of local government budgets is evaluated through seven municipal case studies. The analysis suggests that the local government budgeting processes are not gender sensitive. The chapter therefore proposes several recommendations that could make local government budgets more gender sensitive.

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