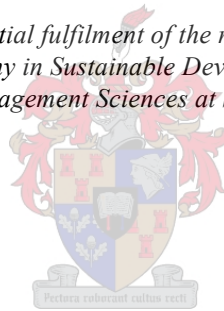


Towards an ‘inclusive green economy’ for South Africa: Engaging *with* the informal economy

by
Suzanne Smit

*Thesis presented in partial fulfilment of the requirements for the degree
of Master of Philosophy in Sustainable Development in the Faculty of
Economic and Management Sciences at Stellenbosch University*



Supervisor: Dr Josephine Kaviti Musango

March 2015

Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: March 2015

Copyright © 2011 Stellenbosch University

All rights reserved

Abstract

The informal economy is a vibrant and growing phenomenon, offering both opportunities and lessons on resilience and innovation. Within the context of sustainable development and poverty eradication, connecting the green economy to the informal economy is imperative. This study therefore analysed the notion of an 'inclusive green economy' for South Africa with regard to its engagement with the informal economy. The initial investigation indicated an absence of literature that connected the two seemingly disconnected fields, thus indicating a gap that required further investigation. The central research objective for this study was to explore the level and extent of engagement between green economy policies and practices and the informal economy in South Africa. The study further set out to explore the range of possible connections, whilst identifying a number of barriers, opportunities and possible support mechanisms at different levels of organisation. The research questions were approached from multiple perspectives. The study was informed by the grounded theory methodology, which supports the use of multiple methods, including content analysis, surveys, interviews and observations, in order for a theory to emerge from the data. The results indicate that despite a number of potential connections, the level and quality of engagement are generally inadequate. It is therefore argued that an inclusive green economy in the South African context requires a new 'lens' for considering the role and value of the informal economy. Such a broader conceptualisation may thus lead to a more informed and enabling policy and planning environment, which may be more conducive to socially equitable and environmentally sustainable development.

Opsomming

Die informele ekonomie is 'n dinamiese en groeiende verskynsel wat geleenthede vir, en lesse oor, lewenskragtigheid en innovasie bied. Teen die agtergrond van volhoubare ontwikkeling en armoedeverligting, is dit noodsaaklik om die groen ekonomie aan die informele ekonomie te koppel. Hierdie studie het dus 'n ontleding onderneem van die konsep van 'n 'inklusiewe groen ekonomie' vir Suid-Afrika, en veral hoe dit by die informele ekonomie aansluit. Die aanvanklike ondersoek het op 'n gebrek aan literatuur oor die koppeling tussen dié twee oënskynlik uiteenlopende gebiede – en 'n gevolglike behoefte aan verdere navorsing – gedui. Die hoofnavorsingsoogmerk van die studie was daarom om ondersoek in te stel na die vlak en omvang van koppeling tussen beleide en praktyk vir die groen ekonomie en die informele ekonomie in Suid-Afrika. Daarbenewens wou die studie die verskeidenheid moontlike koppelingse verken, en terselfdertyd 'n aantal hindernisse, geleenthede en moontlike steunmeganismes op verskillende vlakke van organisasie uitwys. Die navorsingsvrae is uit verskillende oogpunte benader. Die studie het berus op die metodologie van gegronde teorie, wat die gebruik van verskillende metodes – onder meer inhoudsontleding, opnames, onderhoude en waarnemings – behels sodat 'n teorie uit die data na vore kan kom. Ondanks 'n aantal moontlike verwantskappe, dui die resultate op 'n algemeen onvoldoende vlak en gehalte van koppeling. Die studie kom daarom tot die gevolgtrekking dat 'n 'inklusiewe groen ekonomie' in Suid-Afrikaanse verband vereis dat die rol en waarde van die informele ekonomie deur 'n nuwe 'lens' beskou word. So 'n uitgebreide konseptualisasie kan tot 'n grondiger en meer instaatstellende beleid- en beplanningsomgewing lei, wat meer bevorderlik kan wees vir maatskaplik billike en omgewingsvolhoubare ontwikkeling.

Acknowledgements

This work was supported by funds received from the National Research Foundation's Community Engagement Programme awarded to Stellenbosch University

It is with much gratitude and admiration that I acknowledge the following people for their unwavering, limitless and invaluable support throughout this study: Dr Josephine Musango, my steadfast, industrious and inspiring supervisor; Beatrix Steenkamp for continued advice and assistance; Susan Smit, for her faithfulness and willingness to act as a sounding board, especially when thoughts and ideas were unclear; Caroline Skinner for guiding and inspiring me to focus on the informal economy; and Shanelle de Villiers for constant motivation and devoted friendship.

I believe in a higher power and am thankful for the people and experiences that helped shape the being that I am today, and in particular I would like to acknowledge the staff and students of the Sustainability Institute and Helderberg College. I dedicate this study to the millions of marginalised and vulnerable people who are 'forgotten' in the systems and structures that supposedly protect and empower us. I hope that in a small way, this study gives you a voice.

Finally, I would also like to acknowledge and thank the individuals and institutions that participated in and contributed to the study, and although they remain anonymous, their input is highly valued.

Table of contents

| | |
|--|-------------|
| Declaration | i |
| Abstract | ii |
| Opsomming | iii |
| Acknowledgements | iv |
| List of tables | vii |
| List of figures | viii |
| List of photos | ix |
| List of acronyms and abbreviations | x |
| Glossary of terms | xii |
| CHAPTER 1: INTRODUCTION | 1 |
| 1.1 Background | 1 |
| 1.2 Rationale | 2 |
| 1.3 Problem statement | 3 |
| 1.4 Research questions | 3 |
| 1.5 Significance of the study | 3 |
| 1.6 Limitations and assumptions of the study | 4 |
| 1.7 Research strategy | 5 |
| 1.8 Organisation of the study | 6 |
| CHAPTER 2: LITERATURE REVIEW | 8 |
| 2.1 Introduction | 8 |
| 2.2 Global perspectives and pathways for a green economy | 10 |
| 2.2.1 The emergence of ‘green economy’ | 11 |
| 2.2.2 Divergent definitions and universal principles | 13 |
| 2.2.3 Aspects of power and participation | 17 |
| 2.2.4 Related concepts | 20 |
| 2.2.5 Issues of design, implementation and review | 27 |
| 2.3 The South African green economy perspective | 30 |
| 2.3.1 The emergence of the South African green economy | 31 |
| 2.3.2 Challenges to a green economy transition in South Africa | 37 |
| 2.3.3 Examining an inclusive green economy | 40 |
| 2.4 Recognising the informal economy | 42 |
| 2.4.1 Perspectives, perceptions and different approaches | 43 |
| 2.4.2 The informal economy in South Africa | 47 |
| 2.5 Connecting the green economy to the informal economy | 52 |
| 2.5.1 Sustainable development and informality | 52 |
| 2.5.2 Connections: The case for inclusion | 55 |
| 2.5.3 Policy approaches and intervention criteria | 66 |
| 2.6 Summary | 69 |
| CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY | 72 |
| 3.1 Research design | 72 |
| 3.2 Research methodology | 73 |

| | | |
|---|--|------------|
| 3.3 | Research methods, data requirements and analysis | 74 |
| 3.3.1 | Research question 1 | 75 |
| 3.3.2 | Research question 2 | 80 |
| 3.3.3 | Research question 3 | 83 |
| 3.4 | Summary | 85 |
| CHAPTER 4: RESULTS | | 86 |
| 4.1 | Extent of engagement with the informal economy | 86 |
| 4.1.1 | Policies and plans related to the green economy | 87 |
| 4.1.2 | Practices related to the green economy | 92 |
| 4.2 | Green activities in the informal economy | 99 |
| 4.2.1 | Bioprospecting and biotrade | 103 |
| 4.2.2 | Recycling and waste picking | 104 |
| 4.2.3 | Small-scale and subsistence farming | 106 |
| 4.2.4 | Green infrastructure, technology and construction | 110 |
| 4.3 | Mechanisms to improve the current planning and policy environment | 114 |
| 4.3.1 | Barriers to and challenges in connecting the green economy to the informal economy | 116 |
| 4.3.2 | Opportunities for and benefits of connecting the green economy to the informal economy | 116 |
| 4.3.3 | Support for connecting the green economy and the informal economy at various levels | 117 |
| 4.4 | Summary | 124 |
| CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS | | 126 |
| 5.1 | Connecting theory to practice | 126 |
| 5.2 | Self-assessment | 128 |
| 5.3 | Limitations of the study | 128 |
| 5.4 | Recommendations | 130 |
| Bibliography | | 134 |
| List of Appendices | | 149 |
| | Appendix A: On-line Questionnaire | 149 |
| | Appendix B: Codebook | 155 |

List of tables

| | |
|---|-----|
| Table 2.1: Dominant approaches and transition pathways to a green economy . | 19 |
| Table 2.2: National policies and measures related to the green economy in South Africa | 32 |
| Table 2.3: Changes in perspectives on the informal economy | 44 |
| Table 2.4: Perspectives on and approaches to sustainable development and work | 54 |
| Table 3.1: Online questionnaire participation and response rates | 79 |
| Table 3.2: Semistructured interview participation and response rates..... | 82 |
| Table 4.1: Ranking and frequency of direct and indirect references to the informal economy | 87 |
| Table 4.2: Results for rating green economy policies' engagement with the informal economy | 90 |
| Table 4.3: Perspectives on engaging with the informal economy | 97 |
| Table 4.4: Range of green activities taking place in the informal economy | 102 |
| Table 4.5: SWOT analysis of connecting the green economy to the informal economy | 115 |
| Table 4.6: Local-level support mechanisms | 118 |
| Table 4.7: Provincial-level support mechanisms | 120 |
| Table 4.8: National-level support mechanisms | 121 |
| Table 4.9: NGO-level support mechanisms | 122 |
| Table 4.10: Private sector-level support mechanisms | 123 |
| Table B1: Codes extracted from national policies and plans | 155 |

List of figures

| | |
|---|-----|
| Figure 1.1: Strategy of the research study | 5 |
| Figure 2.1: Continuum of informal economic actors and activities..... | 49 |
| Figure 2.2: Formal-informal economy linkages | 57 |
| Figure 3.1: Research design | 73 |
| Figure 3.2: Network view of terms considered direct references to the informal economy | 77 |
| Figure 3.3: Network view of terms considered indirect references to the informal economy | 77 |
| Figure 4.1: Interface between biodiversity heritage, IKS and new development in genomics..... | 103 |

List of photos

| | |
|---|-----|
| Photo 4.1: Several weeks' worth of community recycling | 105 |
| Photos 4.2 and 4.3: Household-level food production (Site A) | 108 |
| Photos 4.4 and 4.5: Marginally larger scale food production (Site B) | 109 |
| Photos 4.6 and 4.7: Community-level food production (Site B) | 109 |
| Photos 4.8 and 4.9: Microscale solar energy project – exterior view of components (Site B)..... | 110 |
| Photos 4.10 and 4.11: Microscale solar project – interior view of components (Site B) | 110 |
| Photo 4.12: Billboard advertising solar electricity (Site A)..... | 111 |
| Photo 4.13: External view of iShack incorporating solar energy (Site A)..... | 111 |
| Photos 4.14 and 4.15: Community facilities before and after installation of biogas digester (Site B) | 112 |
| Photo 4.16: External view of biogas digester unit (Site B) | 113 |

List of acronyms and abbreviations

| | |
|--------|---|
| COSATU | Congress of South African Trade Unions |
| DBSA | Development Bank of Southern Africa |
| DEA | Department of Environmental Affairs |
| DEAT | Department of Environmental Affairs and Tourism |
| DoE | Department of Energy |
| DoHET | Department of Higher Education and Training |
| DST | Department of Science and Technology |
| DTI | Department of Trade and Industry |
| DWA | Department of Water Affairs |
| EDD | Economic Development Department |
| GDP | gross domestic product |
| GEC | Green Economy Coalition |
| GEF | Global Environment Facility |
| GGGI | Global Green Growth Institute |
| GGKP | Green Growth Knowledge Platform |
| GW | gigawatt |
| ICLS | International Conference of Labour Statisticians |
| IDC | Industrial Development Corporation |
| IIED | International Institute for Environment and Development |
| IKS | indigenous knowledge system |
| ILO | International Labour Organization |
| LEDS | low-emission development strategies |
| MW | megawatt |
| NDP | National Development Plan |
| NEDLAC | National Economic Development and Labour Council |
| NFSD | National Framework for Sustainable Development |
| NGO | nongovernmental organisation |
| NGP | New Growth Path |
| NPC | National Planning Commission |
| NSDS | National Sustainable Development Strategy |
| NSSD1 | National Strategy for Sustainable Development and Action Plan |

| | |
|---------|--|
| OECD | Organisation for Economic Co-operation and Development |
| REDD | Reducing Emissions from Deforestation and Forest Degradation |
| RSA | Republic of South Africa |
| SAQA | South African Qualifications Authority |
| StatsSA | Statistics South Africa |
| SWH | solar water heater |
| SWOT | strengths, weaknesses, opportunities and threats |
| TIPS | Trade and Industrial Policy Strategies |
| UN | United Nations |
| UNDESA | United Nations Department of Economic and Social Affairs |
| UNDP | United Nations Development Programme |
| UNESCAP | United Nations Economic and Social Commission for Asia and the Pacific |
| UNEMG | United Nations Environmental Management Group |
| UNEP | United Nations Environmental Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UNIDO | United Nations Industrial Development Organization |
| UNITAR | United Nations Institute for Training and Research |
| UNRISD | United Nations Research Institute for Social Development |
| WCED | World Commission on Environment and Development |
| WIEGO | Women in Informal Employment: Globalizing and Organizing |

Glossary of terms

Green economy

The notion of a green economy is highly contested with interpretations ranging from broad to narrow. This study maintained a broader perspective of the green economy, therefore relying, in part, on the United Nations Environmental Programme (UNEP, 2011:16) definition “as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities” and as existing within the context of sustainable development and poverty eradication.

Green jobs

There is little consensus on definitions of the term ‘green jobs’; however, within the confines of this study, the term was utilised to refer to “employment in industries and facilities that are designed to mitigate impacts to the environment and natural systems and the protection thereof” (DEA, 2010:4) and to activities “that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high efficiency strategies; de-carbonise the economy; and minimise or altogether avoid generation of all forms of waste and pollution” (UNEP, ILO, IOE & ITUC, 2011:3).

Green activities

Green jobs constitute green activities in as far as they pertain to the restoration of ecosystem services and mitigation of negative impacts on the environment, including activities that protect biodiversity; reduce use of/demand for energy, materials and water; reduce carbon emissions; and reduce and/or circumvent all forms of pollution and waste. These activities are also recognised as taking place in both the formal and informal economies and include “blue collar work force opportunities created by firms and organizations whose mission is to improve environmental quality” (Pinderhughes, 2006:62).

Informal sector

The International Conference of Labour Statisticians (ICLS) defines the informal sector as referring to “employment and production that takes place in

unincorporated small and/or unregistered enterprises” (ICLS in Chen, 2012:8). The use of the term ‘sector’ rather than ‘economy’, however, is not uncontested, and the term ‘informal economy’ is preferable to ‘informal sector’ as the former denotes the heterogeneity of the activities performed across all sectors and the latter denotes an unwarranted separation between the formal and informal (Devey, Skinner & Valodia, 2003).

In this study, the term ‘informal sector’ was used to denote that which is not included in the formal sector; however, it was recognised that a dualist approach might be problematic. For the purpose of this study, however, the distinction between the formal and informal sectors did not denote isolation of either and did not negate the existence of several complex linkages between the two.

Informal economy

The term ‘informal economy’ was used as pertaining to

... economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements. Their activities are not included in the law, which means that they are operating outside the formal reach of the law; or they are not covered in practice, which means that – although they are operating within the formal reach of the law, the law is not applied or not enforced; or the law discourages compliance because it is inappropriate, burdensome, or imposes excessive costs (ILO, 2003).

The notion of informal economy expands the notion of the informal sector as not being limited to one area of economic activity but as taking place across a range of sectors and was therefore deemed relevant to this study.

Second economy

The term ‘second economy’ refers to the definition by the Economic Development Department (EDD) as including the “range of activities that are often marginal, outside the regulatory net and survivalist in character” (EDD, 2013). It is further acknowledged that there is an overlap between the conceptualisation of the informal economy and the second economy, and the terms were used interchangeably within this study.

CHAPTER 1: INTRODUCTION

1.1 Background

Whilst studying for the Postgraduate Diploma in Sustainable Development, I became aware that the concept of 'informality' consistently appeared throughout the different modules, namely Sustainable Development, Corporate Citizenship, Governance Globalisation and Civil Society, Complexity Theory and Systems Thinking, Leadership and Ethics, Sustainable Cities and Applied Economics. It was not necessarily defined or conceptualised in the same way every time, but it was noticeably an underlying and recurring theme.

Whilst I was learning about complex systems and how they operate and function, a related notion namely 'diversity' emerged as being important to the successful functioning of such systems (Preiser, 2013). Yet when looking at real-world scenarios, I could see that the concept of informality was often associated with being on the periphery, marginalised or ignored. Literature from the Sustainable Cities module (Davis, 2004; Pieterse, 2008; Swilling & Anneck, 2012) problematised informality in terms of being a growing phenomenon, as spatially reproduced through urban planning paradigms, as linked to poverty and inequality and as continually being either ignored or undervalued. In the last module that I completed, Applied Economics, there were readings on the green economy, and while I was bearing in mind the notions of informality and diversity, the question about how the informal sector was represented in the green economy emerged.

In attempting to understand how informality and the green economy were connected and how this connection might be conceptualised, I met with Caroline Skinner, Director of the Urban Policies Programme for Women in Informal Employment: Globalizing and Organizing (WIEGO) and senior researcher at the African Centre for Cities at the University of Cape Town. The initial conversation broadened my perspective on the informal economy

and helped to establish the need for connecting it to the green economy perspective.

I found further encouragement in the form of a think piece published by the United Nations Research Institute for Social Development (UNRISD), written by Dawa and Kinyanjui (2012), that argues that “the informal economy should be included in discussions on the green economy”. From here I took a closer look at the green economy and informal economy landscapes and realised that there was a lack of research that adequately connected the two, thereby prompting my interest in addressing this gap.

1.2 Rationale

Within the context of climate change and at a time when South Africa is looking towards socially equitable and environmentally sustainable development, this study is relevant and appropriate. The study aimed at expanding the current conception of a green economy in South Africa by recognising activities within the informal economy that contribute to sustainable livelihoods and environmental sustainability. The study also provides a new ‘lens’ for looking at the informal economy.

Informality and the reality of everyday experiences are currently ignored or undervalued within the South African green economy policy environment, and by recognising the activities that contribute to sustainable development, this study may help to broaden the current perspective as well as inform future implementation or development of such activities in informal settlements. The study contributes to the body of knowledge on informality and the green economy, thereby leading to a more informed policy and planning environment, which may be more conducive to socially equitable and environmentally sustainable development.

1.3 Problem statement

The preliminary investigation suggested that the informal economy was generally undervalued or ignored in discussions related to the green economy in general and the South African green economy in particular.

By overlooking the informal sector, policy and planning initiatives are not fully engaged with the real everyday experiences and activities of those living in the survivalist economy, leading to a narrow conception of what a green and inclusive economy for South Africa may be. The informal economy, however, is a very real phenomenon that warrants greater inclusion and consideration in planning for sustainable development.

1.4 Research questions

Based on the problem statement, the associated research questions are as follows:

- To what extent do current South African policies and practices related to the green economy engage with the informal economy?
- What green activities are taking place within the informal economy that contribute to sustainable livelihoods?
- How can these activities be supported and developed to expand the current planning and policy environment?

The study did not include propositions or hypotheses due to its nature and type, which involved building a theory inductively, based upon observations in the real world. Both Murray (2005:94) and Mouton (2001:117) support the omission of hypotheses in special cases and as related to the aforementioned criteria.

1.5 Significance of the study

The study is of importance as it provides the foundations for connecting the green economy to the informal economy in South Africa. The study may therefore benefit several stakeholders and in the following ways:

- The study may impact how development and planning practitioners conceptualise and implement an 'inclusive green economy'.
- Local, regional and national government officials and departments tasked with creating policies and plans under the auspices of the green economy may expand their efforts in supporting activities within the informal sector that contribute to sustainable development.
- Civil society groups, such as WIEGO, that engage in projects in informal settlements that are classed as 'green' may use the study to increase awareness, raise funds and lobby for greater government support.
- Informal workers may gain greater support and recognition for their work.
- International bodies concerned with labour, social development and environmental sustainability may use the study as a basis for further research and informed discussion.
- By connecting the green and informal economy fields, a contribution is made to the current body of knowledge that may lead to further research and expansion of the field.

1.6 Limitations and assumptions of the study

The following limitations are recognised:

- The examination of South African policies and plans related to the green economy was limited to those created between 2008 and 2014.
- The informal economy activities considered were those that fall within the legal framework; illegal or immoral activities were not included.
- Green activities within the informal economy were recognised as those contributing to sustainable development, for example those that restore and promote ecosystem services, reduce carbon emissions, improve resource use efficiency or reduce/prevent all forms of waste and pollution.
- The study focused mainly on activities within the informal sector and not the formal sector, though linkages between the two may exist.
- The study was limited to the South African context.

1.7 Research strategy

The research strategy involved several steps aimed at developing a clearer understanding of the research problem and at addressing the associated research questions so that a new theory connecting the green and informal economy in South Africa could emerge (see Figure 1.1):

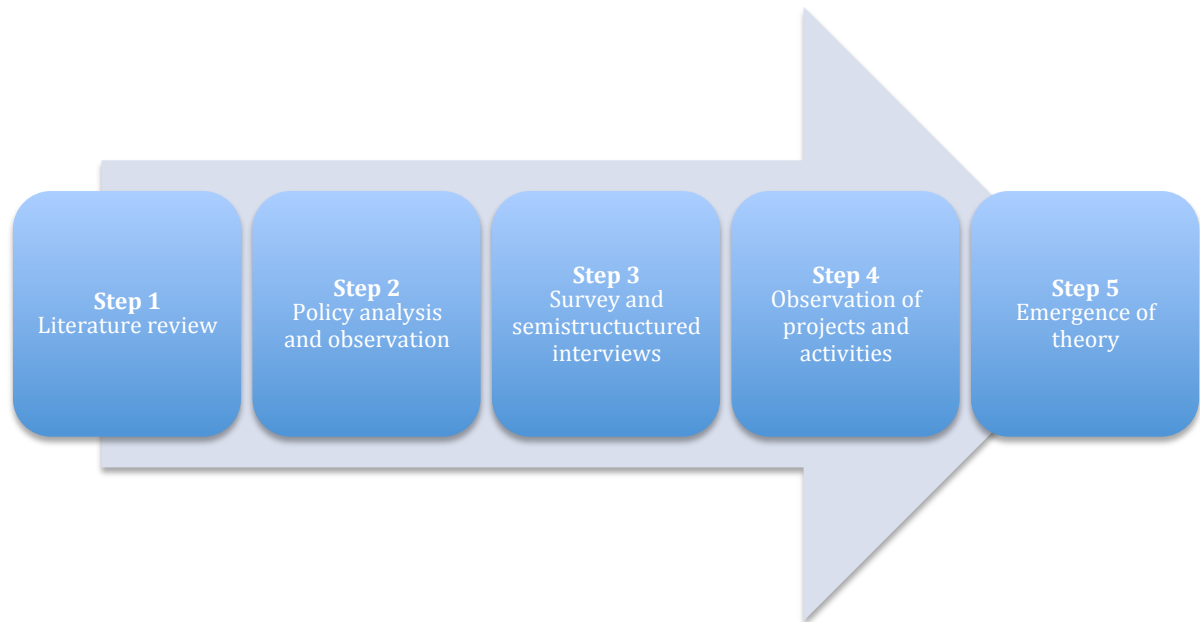


Figure 1.1: Strategy of the research study

Although the figure represents a linear progression, the research was designed to be reiterative, with each phase informing and being informed by previous and subsequent steps. The first step in the research strategy involved reviewing the most recent and relevant academic and grey literature according to four identified themes, namely the green economy, the South African green economy, the informal economy and connections between the green and informal economies. Through the preliminary literature review, the need for connecting the informal economy to the broader green economy was identified.

From the literature on the informal economy (also known as the second economy) in South Africa and from discussions with my supervisor, a number of potential candidates for interview and/or survey were identified. From the South African green economy literature, several national policies and plans

were identified for further scrutiny in Step 2 (refer to Section 3.3.1 of Chapter 3).

Step 2 was designed to address the first research question: To what extent do current South African policies and practices related to the green economy engage with the informal economy? To answer this question, content analysis of selected national policies was undertaken, and a number of green economy workshops and meetings were attended (refer to Section 3.3.1 of Chapter 3).

In Step 3, a number of green economy and informal economy practitioners and policy influencers were approached for interview or online survey in order to gain deeper insights pertaining to all three the research questions (refer to Chapter 3).

Up to this point, the study relied on 'formal' sources of information, but as it aimed to increase awareness of the value of informality, I would have been remiss if I did not actually observe these activities *in situ*. Step 4 therefore involved observing and photographically documenting informal green activities in informal settlements (refer to Chapter 3).

The fifth and final step of the research strategy involved analysing the data and allowing for a theory to emerge. The study was informed by grounded theory methodology, which allowed for a process of constant comparison and refinement of concepts and ideas.

1.8 Organisation of the study

Chapter 1 explains the background and the emergence of the research idea as well as the rationale for the study. The research problem is specified and associated research questions are identified, followed by an identification of the beneficiaries of the study in an effort to demonstrate its significance. The scope of the study is defined in terms of its limitations and assumptions, and the research strategy is outlined. This is followed by an outline of the general structure of the paper.

Chapter 2 provides the theoretical framework of the study, which is divided into four core themes. These themes pertain to the green economy in general, the South African green economy, the informal economy and possible connections between the green economy and the informal economy.

Chapter 3 outlines the research design and methodology of the study as well as the methods and instruments used, whilst stipulating the data requirements, criteria and analysis.

Chapter 4 considers the research questions particular to this study and presents the results of the data analysis in terms of divulging

- the extent of engagement between South African policies and practices related to the green economy and the informal economy;
- the form and nature of informal green activities in South Africa;
- the barriers and opportunities related to connecting the green economy to the informal economy; and
- a variety of support mechanisms at different levels of organisation.

Chapter 5 provides the conclusions and recommendations. It further indicates the contribution of the study to practice as well as future areas of research.

CHAPTER 2: LITERATURE REVIEW¹

2.1 Introduction

Global social, economic and environmental challenges include persistent poverty, income inequality, unemployment, resource scarcity, “the volatility of financial markets and the vulnerability of the real economy to them” (Lorek & Spangenberg, 2014:34), unsustainable consumption and production cycles, degradation of ecosystem services, climate change, and so forth (Davies, 2013; Swilling & Annecke, 2012). These challenges have long necessitated discussions and transformative actions at multiple levels with regard to what should be transformed, how, to what degree and by whom. The concept of a green economy is the latest addition to these discussions, promoted and diffused by international institutions to national level, claiming to offer diverse sets of solutions and approaches yet equally contested and challenged.

In analysing these trends and notions, particularly within a developing country context, the literature review is organised according to four themes. The first of the themes discussed within this chapter focuses on the notion of a green economy, tracing its emergence and development in recent time whilst examining the main approaches, principles and strategies that constitute it. The aim is to provide a macro-perspective and -understanding of the green economy, which in itself is a broad and highly contested notion. Several aspects of the green economy are reviewed, including its relation to sustainable development as well as overlaps and differences in interpretation and implementation.

Although a diverse range of pathways to a green economy may be identified, the market-liberalist approach is recognised as dominating international

¹ A paper based on this chapter has been submitted for review and publication in the *Ecological Economics* journal. The reference is Smit S, Musango JK (2014). Towards connecting green economy with informal economy in South Africa: A review and way forward. Paper submitted to *Ecological Economics* 1 December 2014 [Manuscript Number, ECOLEC-D-14-01189 Under Review].

discourse and practice, therefore requiring an examination of related concepts such as green growth and low-emissions development. This particular pathway is challenged on various fronts, and therefore several of the main critiques are reviewed.

The aim of the first theme is to provide an overall view of the green economy. However, it is recognised that due to the expansive nature of the field, this chapter does not encompass the entirety of the views, applications and contestations related to the green economy. Where differences and overlaps occur, only key issues are highlighted and in terms of consensus, the United Nations Conference on Sustainable Development (Rio+20) outcome document *The Future We Want* is considered as representing general agreement by nation states (though it is recognised that as a nonbinding agreement, consensus in theory does not necessarily translate into coherent action, nor does it negate the need for contextually relevant measures).

The second theme analyses the South African green economy perspective in order to extract the national conceptualisation and approach to a green economy, particularly within its contextual realities and to situate it among broad and narrow conceptions found on a global scale. A review of the emergence of policies and plans related to the green economy is followed by an examination of the key issues challenging the transition. The notion of an inclusive green economy is characterised as involving participation and inclusivity whilst being problematised in terms of the approach and focus of reporting on the progress of the green economy. These green economy progress reports are argued to be indicative of the general inclination to undervalue or ignore the informal economy in the policy and planning environment, prompting a deeper exploration of the role of the informal economy discussed in themes 3 and 4.

The third theme relates to the notion of the informal economy, tracing various perspectives and approaches to 'managing' the informal economy in general and in South Africa specifically.

The fourth theme attempts to connect the informal economy to sustainable development in general and the green economy in particular. The value of the informal economy in contributing to an inclusive green economy is asserted and derived from a characterisation of the informal economy. It is argued that the informal economy should necessarily be incorporated in the planning and practice of a green economy for South Africa. The fourth theme concludes with a number of evaluative criteria and significant aspects that may inform future policies and interventions aimed at connecting the green and informal economies.

2.2 Global perspectives and pathways for a green economy

In order to appreciate and evaluate the role of the green economy in terms of current contextual realities, it needs to be considered against the backdrop of sustainable development. The notion of sustainability can be traced back to the United Nations Conference on the Human Environment in 1972. The phrase ‘sustainable development’ was coined by the World Commission on Environment and Development (WCED), better known as the Brundtland Commission, in 1987, describing it as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987 in UNEP, 2011:17).

Though vaguely defined and diversely interpreted, the notion of sustainable development has become the cornerstone of international negotiations and discussions for managing global social, economic and environmental crises at multiple levels (UNDESA, 2014). Considered an overarching goal by some (UNDESA, 2014) and as a process by others (Blewitt, 2008), sustainable development is said to revolve around “the relationship among economic development, environmental quality and social equity” (Rogers, Jalal, & Boyd, 2005:42). Denoting a variety of elements, sustainable development, however, is devoid of a “clearly articulated economic philosophy or strategy” (AtKisson, 2012:38). It is within this context then that the green economy is considered, having emerged as the latest vehicle for achieving sustainable development and poverty eradication in the aftermath of the financial crisis of 2008.

2.2.1 The emergence of 'green economy'

The term 'green economy' first appeared in 1989 in a report by Pearce, Markandya and Barbier that suggested that economic principles could aid environmental policy (UNDESA, 2014). At the time it did not carry much significance, but after the 2008 financial crisis, the concept of a green economy received much greater consideration as a means for liberating nations from global food, energy and financial crises whilst heeding ecological limits.

UNEP first championed the idea of 'green stimulus packages' based on large-scale public investment in projects that could initiate financial recovery. The first programme to be launched was the Green Economy Initiative, aimed at analysing and supporting investment in green sectors and greening polluting or resource-intensive sectors (UNDESA, 2014). The initiative also gave rise to the Global Green New Deal, which included a set of policies and spending initiatives aimed at achieving global economic recovery, poverty eradication, and reduced carbon emissions and ecosystem degradation (UNDESA, 2014; UNEMG, 2011). Numerous leading economies, international organisations and financial institutions were now looking to the notion of a green economy to kick-start the global economy. The green economy became a core theme for discussion at the 2012 United Nations Conference on Sustainable Development (Rio+20).

According to Allen and Jussila (2013), the transition to a green economy is well on its way, with the vast majority of countries implementing a green economy to some degree. These efforts are being supported through a number of international platforms and forums, partnerships, innovative structures and arrangements as well as several initiatives and programmes and green economy funds that provide services for capacity building, finance, technology transfer, brokering, research, and information exchange and management (Allen & Jussila, 2013).

Major green economy programmes and initiatives include the following: United Nations – Reducing Emissions from Deforestation and Forest

Degradation (UN-REDD) (United Nations Framework Convention on Climate Change [UNFCCC]); UNEP's Technology Needs Assessment Program; the Energy Sector Management Assistance Program; the Green Jobs Initiative and Program (International Labour Organization [ILO], UNEP), the Green Low-Emission Capacity Building Program (United Nations Development Programme [UNDP]); the Green Economy Initiative (UNEP); and the Poverty-Environment Initiative (UNEP, UNDP) (Allen & Jussila, 2013:15; AtKisson, 2013; Benson & Greenfield, 2012).

Similarly, major green economy partnerships supporting high numbers of countries include the Climate and Development Knowledge Network and the Global Climate Change Alliance (Allen & Jussila, 2013:15). In February 2013, UNEP also launched the Partnership for Action on Green Economy (UNEP, ILO, the United Nations Industrial Development Organization [UNIDO] and the United Nations Institute for Training and Research [UNITAR]), which aims to assist 30 nations in building national green economy strategies for shifting investment toward clean technologies, resource-efficient infrastructure, green skilled jobs, and so forth (Benson & Greenfield, 2012).

Funding the green economy transition, however, is costly, estimated at trillions of dollars per year in additional investment. This makes capital investment one of the most challenging aspects of the green economy (AtKisson, 2013). Major green economy funds and mechanisms that are supporting several different countries include the Global Environment Facility (GEF), the Least Developed Countries Fund (GEF), the Forest Carbon Partnership Facility (World Bank, UNDP) and the Adaptation Fund (GEF) (Allen & Jussila, 2013). The Green Climate Fund intends to allocate USD100 billion until 2020. The realisation of this investment, however, is questionable, as by March 2013 only USD5.7 million had been committed to the fund (AtKisson, 2013). At national level, it is worth noting that China plans to invest over USD1.28 trillion in developing its green economy, which is by far the greatest investment globally (AtKisson, 2013). It also gives credence to Barbier's (2010) suggestion that the East may be taking the green economy more seriously than the West.

Despite much support for the green economy transition, its conceptualisation and implementation remain hindered by several factors, including the following:

- Lack of international consensus on a definition or universal principles.
- Issues of power and participation.
- The emergence of interrelated but different terms and concepts considered to be contentious or vague, for example green growth and low emissions development, including gross domestic product (GDP) as a measure of progress.
- Lack of clarity around what constitute green economy policy measures and their integration with national priorities and objectives relating to economic growth and poverty eradication.
- Perceived lack of experience in designing, implementing and reviewing the costs and benefits of green economy policies.
- Vested interests, institutional arrangements and poor integration into national policies (UNDESA, 2014).

These issues warrant deeper discussion in order to illustrate how they affect the implementation of the green economy and its ability to bring about transformation for sustainable development on both global and national scales.

2.2.2 Divergent definitions and universal principles

The number of existing green economy definitions is indicative of the myriad of approaches to and perspectives on what should be 'greened' and how. UNEP (2011:16) defines a green economy "as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities"; that means that it is low carbon, resource efficient and socially inclusive and brought about by green growth. Despite UNEP's definition referring to 'greening of economies', the ensuing green economy initiatives have limited their focus to specific sectors of the economy.

Other organisations more representative of civil society, such as the Green Economy Coalition (GEC) and the International Institute for Environment and Development (IIED), prefer to define the green economy as “a resilient economy that provides a better quality of life for all within the ecological limits of the planet” (GEC, 2012). They also oppose the idea of ‘tweaking sectors’, opting instead for a broad-based approach to greening entire economies and arguing that “all sectors have a stake in this: no one sector or organisation can drive the transition alone” (GEC, 2010).

The conceptualisation of the green economy in relation to sustainable development has also been an area of contention. According to Dasgupta (2011:35), the green economy must be considered within the broader context of sustainable development and therefore any green economy proposals that arise from it are only relevant “to the extent that they promote sustainable development, including economic and social development”. For this reason, Dasgupta (2011:35) cautions that an ill-defined conceptualisation of green economy is inadequate for replacing the “well-established concept of sustainable development”. This view is shared by Cozendey (2011:42), who argues that the notion of a green economy should not compete with sustainable development but should rather be conceived as a programme to construct sustainable development, for example by facilitating and promoting “sustainable ways of producing and consuming”.

Initial definitions of ‘green economy’ indicated little emphasis on the social dimension of sustainable development (Allen, 2012a). To address emerging concerns, the concept was redefined at Rio+20 to emphasise the importance of the social dimension, thereby creating a new framework for discussions. Several definitions now incorporate the social dimension, expanding the concept to ‘inclusive green economy’ and ‘inclusive green growth’ (Allen, 2012a:4) and as taking place in “the context of sustainable development and poverty eradication” (UN, 2012:para 56).

In addition to definitional inconsistencies, the principles underpinning the green economy are also divergent. Allen’s (2012a; 2012b) review of several

publications and papers by different international organisations and various stakeholders identifies the most common principles or characteristics of a green economy as the following:

- Instrumental in achieving sustainable development.
- Producing decent work and green jobs.
- Resource and energy efficient.
- Cognisant of the planetary boundaries, ecological limits and/or scarcity.
- Involving integrated decision making.
- Utilising appropriate measures for determining progress, in other words beyond GDP.
- Incorporating equity and justice, inter- and intragenerationally.
- Promoting and protecting biodiversity and ecosystems.
- Contributing to good governance and the rule of law whilst promoting inclusivity, democracy, participation, accountability, transparency and stability.
- Recognising and accounting for externalities.

The Rio+20 outcome document represents a negotiated intergovernmental position and provides guidance to national governments on the interpretation and application of green economy. However, the document, although fairly comprehensive, is silent on several crucial principles (Allen, 2012a:17):

The principles that were not referenced relate to planetary boundaries; low carbon development; resilience to shocks and risks; as well as measuring progress beyond GDP. It should be noted, however, that a reference to measuring progress beyond GDP was included in an earlier section of the outcome document (i.e. paragraph 38).

The concepts of 'planetary boundaries' or 'ecological limits', 'resilience to external shocks' and 'low carbon development' (as well as methodologies for measuring progress beyond GDP) are all closely associated with the scientific literature. For example, resilience has been defined as the capacity of a system to continually change and adapt yet remain within critical thresholds. At the global scale, these critical thresholds have been defined as nine planetary boundaries, one of which is climate change. These concepts have

gained considerable currency in the scientific literature as well as in the development and environmental NGO communities. It is therefore interesting to note the absence of references to planetary boundaries, ecological limits and low carbon development from the Rio+20 intergovernmentally negotiated outcome.

The omission of these principles would imply that they were either ignored or purposefully left out. Despite this oversight, however, Allen (2012a:17) suggests that the overall understanding of green economy has developed to become more 'balanced and holistic' as well as contextually adaptable. Cozendey (2011:42) nevertheless warns that too broad a conceptualisation of the green economy may render it futile and that it should be considered as a "programme to be implemented in order to construct sustainable development", which can be realistically and feasibly tailored by developing nations.

Although some consensus has been achieved in framing the green economy as a vital tool for achieving sustainable development and poverty eradication, uncertainty about its application remains. According to Allen (2012a), the Rio+20 outcome document indicates general agreement that the original Rio Principles, Agenda 21 and the Johannesburg Plan of Implementation should be incorporated into the green economy whilst at the same time recognising that the green economy should be distinct from yet supportive of national sustainable development policies and plans.

The Rio+20 outcome document therefore identifies several new issues and areas of added value that may be delivered through the green economy, such as the following:

- Creating decent work and green jobs.
- Promoting energy and resource efficiency.
- Utilising integrated decision making.
- Driving innovation through appropriate measures.
- Facilitating education and skills development.
- Supporting both human rights and workers' rights.

- Maintaining economic growth (Allen, 2012a:21).

The delivery of these 'areas of added value', however, depends on the approach taken. It is evident from the final point that there is a deliberate interconnection between the green economy and green growth, a point of contention that is discussed in more depth in Section 2.2.4.

Aside from the lack of consensus on what a green economy is and how it should be implemented, several areas of contention that warrant further investigation have come to light, including the following:

- Aspects of power and participation.
- Issues with related concepts.
- Issues of design, implementation and review.

2.2.3 Aspects of power and participation

As previously stated, prior to Rio+20, widespread concern regarding the lack of consideration for the social dimension of sustainable development emerged. In 2011/12, UNRISD ran a project called 'Social Dimensions of Green Economy and Sustainable Development' in an effort to raise the profile of social issues and their integration within related discussions (UNRISD, 2012). Post Rio+20, however, concerns remain as to how the social dimension will be interpreted and applied and whether such interpretations will be prohibitively narrow and incapable of enhancing wellbeing or transforming the social structures, institutions and power relations that reinforce vulnerability and inequality (Cook, Smith & Utting, 2012; UNRISD, 2012).

Bass (2013) suggests that the most powerful governments and international organisations have generally dominated discussions and debates on the green economy. This may perpetuate limited participation by disadvantaged groups, thereby hindering the transition to an economy that is both green and fair (Cook *et al.*, 2012).

Within this context, the green economy is also criticised for generally disregarding, undervaluing or overlooking the informal economy. Dawa and Kinyanjui (2012) argue that discussions on the green economy should necessarily include the informal economy, hitherto ignored. The authors suggest that it is a growing phenomenon that “plays a significant role in the restructuring of capitalism in the era of globalization”. Markandya, Gonzalez-Eguino and Escapa (2013) also indicate how literature pertaining to environmental fiscal reform, believed to simultaneously improve the environment and have positive economic and social outcomes, has thus far ignored the ‘shadow economy’.

According to Cook *et al.* (2012:1), further contestations about the green economy relate to geopolitical, ideological and disciplinary disparities:

For some developing country governments, green economy carries the baggage of Northern-driven conditionalities or regulations that might constrain growth and reinforce North-South inequalities; while many civil society and social groups are concerned with, among other issues, the scope for “corporate capture” and the contradictory impacts of proposed policies for livelihoods, natural resource use and management, and the cultural heritage of communities around the world.

Clapp and Dauvergne (2011) identify four distinctive approaches to the green economy: market liberalists promoting green growth, globalisation and technological fixes; institutionalists promoting stronger global institutions and norms to protect the common good and the process of globalisation; bioenvironmentalists stressing planetary boundaries and population growth whilst opposing neoclassical growth and globalisation; and social greens emphasising distributional equity and justice whilst rejecting capitalism and globalisation through the promotion of localisation. Cook *et al.* (2012) expand on these approaches by connecting them to current major transition pathways (see Table 2.1).

Table 2.1: Dominant approaches and transition pathways to a green economy

| | Green growth | Strong sustainability | Social economy | Limits to growth |
|--------------------------|---|--|---|--|
| <i>Worldview</i> | <i>Market liberal</i> | <i>Institutionalist</i> | <i>Social green</i> | <i>Bioenvironmental</i> |
| Social | Green jobs Social protection for vulnerable groups Equality of opportunity Stakeholder consultation Green consumerism | Global co-operation Redistribution (income) Stronger institutions Inter- and intragenerational equity Capacity building Social dialogue | Redistribution (income, wealth and power) Rights-based social justice Equality of outcomes Empowerment Citizen action | Radical decrease in consumption and population growth Inclusivity Needs |
| Environmental | Eco-efficiency Technology transfer Reducing Emissions from Deforestation and Forest Degradation (REDD) | Eco-regulation Strengthen global governance regimes REDD+ | Environmental justice Agro-ecology Grassroots action | Ecocentric valuing of nature for its own sake Enforced regulation of global commons |
| Economical | Green Growth Voluntary Corporate Social Responsibility (CRS) Carbon markets, Payment for Ecosystem Services (PES) Production focused Private governance | North-South trade reform Green finance Green taxes State Governance Clean Development Mechanism (CDM) | Deglobalisation Localisation Institutional reform Regional solidarity | No-growth/degrowth measures beyond GDP |
| Indicative organisations | World Trade Organization (WTO) International Monetary Fund (IMF) World Business Council for Sustainable Development (WBCSD) | UNEP UNFCCC GEF | World Social Forum Third World Network | World Watch Institute Pachamama |

Source: Compilation by Cook *et al.* (2012) drawing on Clapp and Dauvergne (2011)

These approaches are not necessarily distinct and overlaps do occur, but according to Clapp and Dauvergne (2011), the market-liberalist approach, championing green growth (Cook *et al.*, 2012), is by far the dominant approach, impacting how the green economy is conceptualised and effectuated.

For Söderbaum (2013), the dominant approach proves problematic and he argues that mainstream perspectives, underpinned by neoclassical economics, tend to be intolerant of alternative modes of thinking, thereby negating true democracy. Söderbaum (2013:222) therefore argues for a broadened dialogue and a 'pluralism of perspectives' in order to confront issues of power and participation:

In a democratic society analysts cannot dictate or refer to correct values but should instead enter into a dialogue with actors affected and concerned to illuminate an issue or a decision situation in a multi-faceted way. Rather than referring to one single idea of correctness, alternative orientations with respect to values or ideology should normally be considered (Söderbaum, 2013:224).

2.2.4 Related concepts

The concepts of green economy, green growth and low-carbon development have diverse origins, yet over time their meaning and use have become analogous in economic decision making and planning, with the distinction between green economy and green growth becoming ever more distorted (Allen & Clouth, 2012).

The concept of green growth originated in the Asia-Pacific Region in 2005 at the Fifth Ministerial Conference on Environment and Development where governments and other stakeholders subscribed to the notion of a green growth path for achieving both sustainable development and the Millennium Development Goals (Allen & Clouth, 2012).

The approach was aimed at matching economic growth and environmental sustainability through improving eco-efficiency and environmental and economic synergies. In 2008 the Republic of Korea adopted 'low carbon green growth' as its vision for development, leading the country to become instrumental in winning support for the concept by the Organisation for Economic Co-operation and Development (OECD) and leading to the establishment of the Global Green Growth Institute (GGGI). The GGGI is dedicated to spreading the new economic growth model, targeting several social, economic and environmental issues, including poverty reduction, job creation, social inclusion, climate change mitigation, biodiversity loss and access to clean energy and water (Allen & Clouth, 2012).

The Green Growth Knowledge Platform (GGKP), an initiative of the OECD, the GGGI, UNEP and the World Bank, defines green growth as "fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies" (GGKP, 2014). Its approach also indicates a focus on specific formal sectors, namely agriculture, energy, manufacturing, waste, biodiversity, fisheries, tourism, water, building, forestry and transport (GGKP, 2014).

By late 2010, the Group of Twenty recognised "green growth as an inherent part of sustainable development" (Allen & Clouth, 2012:34), with several other international organisations, academics and stakeholders following suit soon thereafter. As with the concept of green economy, the concept of green growth is highly contested with several definitions being utilised. Allen and Clouth (2012:35) identify at least 13 such definitions, highlighting the following by key international actors:

- UNESCAP: "... growth that emphasizes environmentally sustainable economic progress to foster low-carbon, socially inclusive development."
- OECD: "... fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies."

- World Bank: "... growth that is efficient in its use of natural resources, clean in that it minimizes pollution and environmental impacts, and resilient in that it accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters."
- GGGI: "Green growth is the new revolutionary development paradigm that sustains economic growth while at the same time ensuring climatic and environmental sustainability. It focuses on addressing the root causes of these challenges while ensuring the creation of the necessary channels for resource distribution and access to basic commodities for the impoverished."

The belief in green growth, as connected to the market-liberalist approach, has been highly criticised. The critiques and issues pertaining to the green growth paradigm include the following:

2.2.4.1 Relying on markets and growth

Barbier (2010) alludes to the disparate green economy approaches taken by the West and the East, yet there are several proposed pathways for transitioning to a green economy, as described by Clapp and Dauvergne (2011). Each approach offers a different combination for the role of state, market and civil society (Cook *et al.*, 2012). The approaches also vary in their interpretation of green economy, ranging from broad to narrow conceptualisations. The market-liberalist approach, championing green growth and underpinned by neoliberal economics, is considered to dominate the international stage (Cook *et al.*, 2012).

This approach, underpinned by economic modernisation, is criticised as being narrow (Cook *et al.*, 2012), as being technocratic (Söderbaum (2013) and modernist, as ignoring spatial, temporal and cultural situational factors (Korhonen, 2008), as being closed off to alternative forms of development (Pepper, 1998; Söderbaum, 2013) and as being insufficient for creating a sustainable and just transition (Swilling & Anneck, 2012). It is integrally connected to "green capitalism" (Smith, 2011:112): and global imperialism (Brand & Wissen, 2012), which Smith (2011) argues is inherently contradictory and inconsistent, given that profit maximisation and the subordination of social and ecological concerns to the market lie at the core of

capitalism. Tienhaara (2013) identifies several forms of green capitalism, each incorporating growth, technology and finance to different degrees and promulgating the role of markets.

Market-based solutions for the green economy are prone to several issues of contention, including reinforcing inequalities and power structures, redistributing assets upward (Cook *et al.*, 2012; Smith, 2011), commodifying the commons and creating corporate capture (Boehnert, 2013), creating disincentives for reconfiguring unsustainable production and consumption patterns, and exacerbating negative distributional consequences (Cook *et al.*, 2012; Smith, 2011).

2.2.4.2 A priori ideology

Various international financial institutions and United Nations (UN) agencies, for example the World Bank and the International Monetary Fund, hale economic growth as the solution to problems such as poverty, unemployment, environmental destruction, and budget and trade deficits. Against the background of the 2008 financial crisis, the financial industry and numerous mainstream economists have been looking to the green economy and green growth “as a way out of economic stagnation and low growth rates” (Benson & Greenfield, 2012).

Zenghelis (2011:58), for example, states that “there is only one growth and development story, and that is the story of green growth and resource efficiency”, but according to Daly (2011), the growth economy has failed by becoming uneconomic and selfdestructive. He suggests that the only alternative for the future lies in a nongrowing or steady-state economy. In such an economy, quantitative growth (that is based on “pushing more resources through a physically larger economy”) should be limited; instead, it should promote qualitative development (that is leading to an altered and improved state) (Daly, 2011:12). Daly (2013:24) further elaborates on the concept by describing development as “qualitative improvement in the

capacity of a given throughput to provide for the maintenance and enjoyment of life in community”.

Distinguishing between developed and developing nations, Daly (2011) acknowledges the need for developing countries to grow their economies, stating that the marginal benefits of growth in these countries are still greater than the marginal costs and that developed or rich nations therefore should carry the responsibility for limiting their growth to free up the ‘ecological space’ needed for the poor to grow into. Dercon (2012) also acknowledges the importance of economic growth for any large-scale poverty reduction, but he warns that trade-offs that increase social costs exist and if they are not explicitly addressed, green growth may not be good for the poor.

The ideology that is driving belief in the transformative power of green growth is indicative of what Luke (2009:498) describes as the ideology for the 21st century or ‘ecologisms’, which is evident in the “politics, policies and practices” of everyday life, “describing, mapping and prescribing” what society thinks and does. As Luke (2009) suggests, one must question whether such an ideology, which has been linked to globalism, is indeed capable of bringing about a sustainable, equitable and stable society.

2.2.4.3 Flawed assumptions

Certain assumptions underpinning the logic of the green growth approach are also considered to be integrally flawed and weak. The green growth approach places much emphasis on the role of markets in bringing about the necessary change for sustainable development. Benson and Greenfield (2012) recognise government and business as leading the charge, leaving little space for civil society to participate in and effect change. Brand and Wissen (2012:548) further problematise the belief in green growth for delivering sustainable development, describing the ‘imperial mode of living’ that is driven by vested interests and “safeguarded by a range of institutional forms” embedded within state apparatuses. This leads politicians to preserve and protect unsustainable models of production and consumption, resulting in

policies and plans that arguably offer incremental responses within an essentially 'business as usual' approach.

Several governments and civil society groups criticise the concepts of green economy and green growth for not guaranteeing environmental sustainability. Countries such as Venezuela, Bolivia and Ecuador instead opt for alternative models of development that assert the 'rights of nature' whereas civil society concerns revolve around the economic valuation of the environment and issues of inclusivity, responsibility and accountability (Benson & Greenfield, 2012; Boehnert, 2013; Tienhaara, 2013).

2.2.4.4 Gross domestic product as measure of progress

A further point of contention lies in the measures used to evaluate growth and progress. Bartelmus (2013) problematises the indicators used for measuring environmental and economic sustainability used in the green economy, suggesting that there tend to be problems of comparability within and among indicator sets. He further points to the confusion in distinguishing between economic and human welfare, arguing that the notion of all-inclusive human wellbeing is much broader than economic welfare, which tends to be narrowly focused on the sustainability of economic growth.

Despite the existence of alternative measures and the Rio+20 outcome document (UN, 2012:paragraph 38) recognising "the need for broader measures of progress to complement gross domestic product", reliance on GDP for measuring progress in the development of a green economy remains the dominant approach. Only a few of the available alternative measures are explicitly linked to the green economy (AtKisson, 2013).

GDP is described by the OECD as "a familiar but remarkable statistic", an increase in which indicates that "a society [is] getting its collective act together" (Commission on Growth and Development, 2008:17). GDP, however, has been criticised for being an inadequate and inappropriate measure for sustainable development, which should be adjusted,

supplemented or replaced (AtKisson, 2012, 2013; Daly, 2011, 2013; Schepelmann, Goossens & Makipaa, 2010).

Daly (2013) and AtKisson (2012), for example, highlight several issues with GDP as a measure for growth and progress, simultaneously dispelling certain 'myths' related to the suitability of its use. Both argue that beyond levels of sufficiency, growth measured in GDP does not lead to increases in happiness (referred to as 'Easterlin's Paradox') (AtKisson, 2012) or to measured economic welfare but rather continues to increase costs in terms of producing annual 'bads' (Daly, 2013:22). These negative externalities, which accumulate to 'illth', are said to indicate that conventional growth has indeed become uneconomic (Daly, 2013:22).

The notion of added value, inherent to the growth paradigm, is purportedly driven by energy and technology (AtKisson, 2012), culminating in a globalised paradigm that

...serves as a reinforcing foundation to the continuous physical processes of resource extraction (and exhaustion), distribution (usually unequal), over consumption (or under consumption), pollution, and waste that are among the most problematic signature elements of economic growth (AtKisson, 2012:24).

The notion of green growth has emerged as a mainstream alternative to conventional growth, yet its ultimate goal is still growth, "sometimes at the expense of existing ecosystems" (AtKisson, 2012:36). As an approach, it is considered to be limited or narrowly focused and "principally a 'top down' approach which rarely engages with communities or multiple stakeholders" (AtKisson, 2012:36).

2.2.4.5 Decoupling

The green economy, aiming to promote energy and resource efficiency, has also been connected to low-carbon development or low-emission development strategies (LEDS), which originate from the UNFCCC adopted at

Rio 1992. These strategies generally describe national economic development plans as incorporating low-emissions or climate-resilient economic growth and are considered to be “a soft alternative to voluntary or obligatory GHG emission reduction targets in developing countries” (Allen & Clouth, 2012:51). Decoupling, which involves the separation of the process of economic growth from the process of ecosystem-destructive resource use, is generally achieved through increased resource productivity or efficiency and reductions in waste or pollution (AtKisson, 2012; Swilling & Annecke, 2012). The low-carbon development approach, according to Allen and Clouth (2012), is generally well suited to developing nations as it takes a ‘development-first’ approach, focusing on addressing and integrating climate change with development objectives. This view, however, is once again highly contested.

Critics of decoupling (Jackson, 2009; Smith, 2011) argue that any form of growth is ultimately unsustainable, regardless of how ‘green’ it is, and instead Jackson (2009) proposes a process of degrowth in order to deal with climate change. Whilst it is acknowledged that green growth “merely to increase consumption among those who have too much” is untenable, authors such as Swilling and Annecke (2012) argue that certain levels of growth are necessary, especially within developing country contexts, and that such growth, at the very least, needs to be green.

Regardless of the controversy surrounding decoupling, it remains the primary objective of many green economy programmes and policy frameworks. Yet according to AtKisson (2013), the few countries that have achieved decoupling in any form, either relative or absolute, have done so mainly by focusing on one economic or resource dimension pertaining to specific economic sectors. This would indicate a further distinction between broad and narrow interpretations of what should be greened and how.

2.2.5 Issues of design, implementation and review

The Rio+20 outcome document provides little guidance on which policies to implement for a green economy. It does, however, state that a mix of

measures taking into account the “various costs, risks, benefits and opportunities” (Allen, 2012a: 21) of the different options should be considered against the background of each nation’s “institutional and governance arrangements, level of development, and social, economic and environmental priorities” (Allen, 2012a:21).

The most common policy measures revolve around shifting from fossil fuels to sources of renewable energy; improved efficiency and reduced waste; internalising externalities through taxes and cap-and-trade systems; regulatory measures including standards and labels; infrastructure investment for sustainable energy, water, waste and transport; and innovation investment in the form of research and development funding and deployment (Allen, 2012b; Jupesta *et al.*, 2011; OECD, 2011). Notably, Allen (2012b:8) asserts that policy measures related to “property rights and access rights, integrated planning and resource management, sustainable public procurement and social protection policies” are least common, indicating these areas as generally disregarded or undervalued.

To assist governments in choosing the best strategies for implementation and monitoring, several policy option toolkits and methodologies have been proposed by international organisations, some specifically designed for developing nations with limited institutional capacity or access to financial and other resources (Allen, 2012b).

Despite increased international interest and support for the green economy, few nations have created an overall national strategy for a green economy, many being challenged by institutional capacity and financing and integration issues (Allen, 2012b; AtKisson, 2013).

Green economic plans, policies and investments, however, have been pursued by various nations for some time and as prompted by their National Sustainable Development Strategies (NSDS) (AtKisson, 2013). By 2009, 106 countries had produced an NSDS in an attempt to integrate and implement

the principles of sustainable development into their national policies and programmes (Allen, 2012b).

The aim of these strategies has been to broaden the scope of applying policy measures and to create the institutional, informational and financial arrangements necessary for implementing sustainable development policies and programmes. Allen's (2012b) review of the success of these strategies indicates mixed results, and he notes several shortcomings. He suggests that the success of green economy strategies will depend on addressing the problems of the NSDS through, for example, integrated and participatory approaches, institutional reforms and enabling conditions, improved policy evaluation and the application of economic instruments and market-based measures (Allen, 2012b).

According to Allen (2012b), LEDS or economic development plans that incorporate climate change mitigation and adaptation strategies follow a similar trajectory to NSDS. LEDS incorporate both reductions in carbon as well as broader social, economic and environmental issues, with the notion of resilience becoming a common goal. These strategies, however, have had limited success, being hampered by high costs and vested interests (Allen, 2012b). If, as Allen (2012b) suggests, green economy strategies are to build on NSDS and LEDS, past experience in creating such strategies should indicate that a broader and more coherent approach is necessary in terms of planning for the green economy.

A review of 10 national green economy strategies published between 2009 and 2012 also indicates the need for contending with issues of "leadership, institutional arrangements, engagement of central finance ministries and integration with national budgetary processes" (Allen, 2012b:27–36). These challenges are indicative of the "institutional forms" recognised by Brand and Wissen (2012:548) that require greater participatory and more transparent processes.

2.3 The South African green economy perspective

The review of green economy approaches suggests that narrower interpretations are dominant at the global level. With the need for contextually relevant national plans and strategies, it is essential to consider the South African green economy approach and its interpretation of a green economy in the context of sustainable development and poverty eradication.

As a developing nation, South Africa faces pressing challenges of unemployment, poverty, inequality and environmental degradation (Du Toit & Neves, 2007; Peter & Swilling, 2011; Swilling & Annecke, 2012). This suggests that the country's interpretation of the green economy should necessarily be broader than the aforementioned dominant approach being utilised at international level. Such an approach would need to engage with the nation's social and environmental realities as well as address issues related to vested interests, institutional arrangements and poor policy integration and implementation in order to promote a 'just transition' (Swilling & Annecke, 2012). Indeed, for the South African green economy to be inclusive and socially just, it needs to engage with the mass of disenfranchised individuals in a way that empowers and reinforces participation and sustainable livelihoods.

In the following section, the emergence of the green economy in South Africa is reviewed in order to situate its conceptualisation and implementation on the scale between broad and narrow interpretations. The need for an inclusive green economy is then examined in terms of the nation's social, economic and environmental challenges, and several issues and contestations are highlighted. It is argued that a South African green economy in the context of sustainable development and poverty eradication should necessarily incorporate inclusivity, democracy and wider stakeholder participation. As emphasised by Dawa and Kinyanjui (2012), this would require engaging with the informal economy, a notion that is investigated in the final theme: connecting the green economy to the informal economy.

2.3.1 The emergence of the South African green economy

South Africa's interest in and commitment to a green economy arguably predate the popularisation of the concept at international level. Considered to be an 'early mover' on the green economy scene (Allen & Jussila, 2013), South Africa recognises the green economy as a pathway to sustainable development, defining it as "a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities" (DEA, 2014a).

The mandate for sustainable development was first entrenched within the nation's Bill of Rights in the 1996 Constitution (Montmasson-Clair, 2012). Created in the aftermath of apartheid and aimed at addressing the racial oligarchy of the past, the Constitution aims to assist the nation in transitioning to a nonracial, liberal democracy. Enshrined within are several rights, including the right to an environment that is not harmful to health or wellbeing and to the protection of the environment through "reasonable legislative and other measures" (RSA, 1996).

On a global scale, South Africa has been party to several international conventions and agreements related to sustainable development (Allen, 2012a, 2012b; Montmasson-Clair, 2012) and has successfully engaged with multiple international green economy initiatives in order to benefit from support services relating to finance, technology and capacity building for the green economy (Allen & Jussila, 2013).

At national level, the country has numerous policies and strategies in place that relate to the green economy. Several key texts are identified as guiding the development of a green economy in South Africa (Montmasson-Claire, 2012; DEA & UNEP, 2013) (see Table 2.2).

Table 2.2: National policies and measures related to the green economy in South Africa

| Policies and measures | Main goals | Progress (mid-2012) | Civil society involvement |
|---|---|--|--|
| South African Constitution (1996) | Defending human rights. | Sustainable development recognised as a human right. | The Constitution is the result of massive social reform enabled by a sustained and broad civil movement led by the ANC government. |
| Millennium Development Goals (2000) | Improving human welfare globally. | Mixed. | The MDGs are an intergovernmental agreement. |
| Framework for Environmental Fiscal Reform (NT, 2006) | Provides principles and guidelines for fair and effective environmental taxes. | Taxes or levies have been implemented on plastic bags, incandescent lightbulbs, ecosystem restoration costs related to water use, liquid fuel, nonrenewable electricity and new-vehicle CO ₂ emissions performance. | A paper on carbon tax was published for public consultation. |
| State of the Nation Addresses (2008–2012) | Most goals in SONA derive from other departments or documents. | Mixed. | Limited. |
| Ten-Year Innovation and Global Research Plan (DST, 2008) | Includes safe, clean, affordable and reliable energy supply and climate change as priorities. | Support for innovation in electric vehicles, fuel cells and carbon capture and storage but cancellation of the country's largest clean energy R&D programme (the Pebble Bed Modular Reactor) and delay in public utilities (Eskom) implementation of renewable energy demonstration projects (e.g. solar tower). | Limited. |
| Framework for South Africa's Response to the International Economic Crisis (RSA, 2009) | The first mention of green jobs in an economic policy document, helping to link long-term economic growth and environmental sustainability. | Green investment, particularly in renewable energy and transport, is contributing to economic growth. | The document is the result of combined effort of government, business and labour facilitated by the National Economic Development and Labour Council (NEDLAC). |
| Medium-Term Strategic Framework 2009–2014 | Notes the need for sustainable livelihoods and sustainable resource management and relates these to various other policy areas, including energy, water, housing, technology and competitiveness. | Numerous policy responses implemented in relation to the MTSF. | Limited. |

| | | | |
|--|---|--|---|
| and 12 Outcomes (NPC, 2009) | | | |
| Industrial Policy Action Plan (DTI, 2010; 2011; 2012) | Specifically targets growth in green industries, focusing on solar water heaters (SWHs) as well as other types of solar and wind energy, biofuels, electric vehicles and organic farming. | Around 200 000 SWHs installed by mid-2012 and a procurement process started for around ZAR120 billion worth of large-scale renewable electricity generation. | Some consultation via NEDLAC. |
| New Growth Path, Green Economy Accord and Green Jobs Report (EDD, 2010) | Targets the growth of a green economy, resulting in 400 000 new and additional jobs. | Enabling regulation passed in other departments. | Government, business and civil society signed the Green Economy Accord in 2011, which details (mostly already-existing) support measures. |
| Integrated Resource Plan 2010–2030 (DoE, 2011) | Limits emissions from electricity generation to 275 Mt per year and expects renewable energy to make up 42% of all new electricity generation over the next 20 years. | Procurement of renewable energy under the plan is on track, but procurement of nuclear energy has been delayed by at least a year. | Broad public participation, including inputs on modelling parameters and a first draft of the plan. |
| Draft Integrated Energy Plan (DoE, 2013) | Aimed at achieving eight key objectives: <ul style="list-style-type: none"> • Ensure the security of supply. • Minimise the cost of energy. • Increase access to energy. • Diversify supply sources and primary sources of energy. • Minimise emissions from the energy sector. • Promote energy efficiency in the economy. • Promote localisation and technology transfer and the creation of jobs. • Promote the conservation of water. | Draft released for comments. | Key stakeholder participation through a two-day colloquium held in March 2012, followed by the draft document being open to public consultation until 15 December 2013. |
| National Water Resource Strategy (DWA, 2013) | The National Water Act requires the strategy to be updated every five years and is also linked to the NDP. The strategy is aimed at ensuring that national water sources are efficiently and sustainably protected, used, developed, conserved, managed and controlled. | The second edition of the strategy builds on the first, released in 2004. Achievements include development of new water resources and supply infrastructure (although a backlog still exists), water reconciliation strategies in major urban areas, improved sector collaboration (yet regulation of water resources and water quality needs strengthening) and a learning academy established to improve skills. | Broad stakeholder participation and inclusive process. |

| | | | |
|--|--|---|---|
| National Climate Change Response (RSA, 2011) | Endorses and quantifies South Africa's greenhouse gas emissions limits/ commitments. Aims to grow green jobs while limiting job loss in unsustainable industries. | South Africa had already made an (voluntary) emissions commitment and approved an emissions-limited energy plan (Integrated Resource Plan) prior to the publication of the policy. | Significant public consultation, starting with the multistakeholder Long-Term Mitigation Scenarios process in 2007. |
| National Strategy for Sustainable Development (DEA, 2011b) | A large variety of indicators and goals spanning social, economic and environmental issues but not budgets, timelines or responsibilities. | Strategy published and annual publication of sustainability indicators (different from the ones in the strategy). | Public consultation on a draft NSSD since 2009. |
| National Skills Development Strategy III: 2011–2016 (DoHET, 2012) | Recognises the need for a skilled and capable green workforce. The NSDS III does not factor the need to develop green skills into its goals but does prioritise National Skills Fund projects that support the green economy. | The development of green skills has been mainly driven by sector-specific projects rather than a planned approach based on skills need forecasts aligned to the NGP and other national strategies. Developments include the Green Organising Framework for Occupations (recognising 96 green occupations), allocation of R105 578 322 for establishing a renewable energy training centre, research commissioned by SAQA into workplace learning for sustainable development (completed) and learning pathways for green skills (due 2013/2014), and running of the National Environmental Skills Summit in 2012. | Wide stakeholder participation, including government, business organisations, trade unions and constituency bodies and as promoted through the National Skills Summit. |
| National Development Plan (NPC, 2011) | The NDP is very specific about goals and focuses on energy and carbon: <ul style="list-style-type: none"> • Greenhouse emission to peak in 2025 and introduce carbon budgeting. • An economy-wide price for carbon and incentives for energy efficiency and managing waste better. • Five million SWHs by 2030. • Vehicle emission standards, zero-emission building by 2030. • Simplify the regulatory regime for contracting about 20 000 MW of renewable energy by 2030. | Greenhouse gas emissions may already be higher than levels committed to for stabilisation in 2025. A carbon tax with exemption is expected in 2013. SWH installations stand at 200 000 compared to the targeted 1 million by 2014/15. Tax on carbon dioxide emissions of motor vehicles and new building energy efficiency regulations implemented. Procurement has started on the first 3.7 GW of electricity supply from renewable energy out of a plan for 17.8 GW by 2030. | The NPC is guided by nominated commissioners from outside of government (and business for the most part) and consulted on the NDP based on an initial publication of a diagnostic document. |

Source: Compilation of Montmasson-Claire (2012), Sustainlabour, COSATU & TIPS (2013) and DEA & UNEP (2013)

There are also a number of sector- and time-specific policies, for example pertaining to agriculture, rural development, transport and human settlements as well as provincial and local government initiatives and plans (such as those undertaken by Gauteng, the Western Cape and KwaZulu-Natal) that support and complement the South African framework for a green economy (Montmasson-Claire, 2012; Sustainlabour, COSATU & TIPS, 2013; DEA & UNEP, 2013).

The relationship between the green economy and sustainable development is made explicit through the conceptualisation of the green economy as “a pathway to sustainable development and poverty eradication” (DEA, 2014a). The South African National Framework for Sustainable Development (NFSD), approved in 2008, outlines the nation’s vision for sustainable development:

South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration (DEAT, 2008).

In 2009 the global financial crisis placed serious constraints on economic growth worldwide, prompting UNEP’s Global Green New Deal. In response, South Africa released its framework response to the global crisis wherein the country advocated for investment incentives that would develop capacity in green technologies and industries, the greening of existing manufacturing and service activities, and the creation of numerous ‘green jobs’ (DEA, 2014a; RSA, 2009). Green jobs are described as “employment in industries and facilities that are designed to mitigate impacts to the environment and natural systems and the protection thereof” (DEA, 2010:4) and as taking place in “agricultural, manufacturing, research and development, administrative, and service activities that contribute substantially to preserving or restoring environmental quality” (DEA, 2014).

These newly created green jobs would also include activities “that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high efficiency strategies; de-carbonise the economy; and minimise or altogether avoid generation of all forms of waste and pollution” (DEA, 2014a). Although a wide variety of activities are recognised, the focus generally falls upon those that are large scale and occur within the formal or first economy only (an approach problematised by Acey and Culhane [2013], discussed in a later section).

In order to further explore the notion of green growth, South Africa hosted its first Green Economy Summit in May 2010, bringing together the economic sectors and employment cluster departments to identify key short-, medium- and long-term focus areas (DEA, 2011b). The following nine focus areas were prioritised:

- Resource conservation and management.
- Sustainable waste management practices.
- Water management.
- Environmental sustainability: greening and legacy, major events and tourism, research, skills, financing and investments.
- Green buildings and the built environment.
- Sustainable transport and infrastructure.
- Clean energy and energy efficiency.
- Agriculture, food production and forestry.
- Sustainable consumption and production (DEA & UNEP, 2013).

Following the summit, the New Growth Path (NGP) was announced in 2010, prioritising the green economy as a ‘job driver’ and as including activities that “must provide an important entry-point for broad-based black economic empowerment, addressing the needs of women and youth entrepreneurs and offering opportunities for enterprises in the social economy” (EDD, 2010). This would indicate that South Africa views the green economy as an opportunity to simultaneously address several socioeconomic issues related to poverty,

social justice and equality and therefore aims to achieve an inclusive green economy.

Recognising that the transformation to a green economy would entail multistakeholder involvement, the Green Economy Accord was unveiled in 2011 (DEA, 2014a; Montmasson-Claire, 2012). It represented a partnership between the state, business, organised labour and civil society in transitioning the country to a green economy (DEA, 2014a) and indicated that wider participation and action were both necessary and valuable.

The National Strategy for Sustainable Development and Action Plan (NSSD1), endorsed by Cabinet in 2011, outlines the nation's strategic objectives and interventions, building on the NFSD and several other initiatives (DEA, 2011b). The five strategic objectives are outlined as follows:

- Enhancing systems for integrated planning and implantation.
- Sustaining the country's ecosystems and using natural resources efficiently.
- Working towards a green economy.
- Building sustainable communities.
- Responding effectively to climate change (DEA, 2011b).

The NSSD1 also creates a link between the National Strategic Plan, the New Growth Path and the Industrial Policy Action Plan (DEA, 2011b). In order to fund the transition to a green economy, the National Treasury created the Green Fund, allocating R800 million over two years from 2012 to "provide finance for high-quality, high-impact, job-creating green economy projects around the country" (South African Government News Agency, 2012) as well as focusing on capacity building and research and policy development (DEA, 2014b).

2.3.2 Challenges to a green economy transition in South Africa

The transition to an inclusive green economy in the context of sustainable development and poverty eradication in South Africa, however, is not

uncontested and several challenges remain. For example, some contestations are related to the country's resource-intensive economic model (Death, 2014; Peter & Swilling, 2011) and the inability of green growth to deliver the necessary developmental objectives (Resnick, Tarp & Thurlow, 2012).

An in-depth analysis and review of all the critiques and contestations, however, fell outside of the scope of this study with its focus on the assertion that South Africa is pursuing an inclusive green economy. The following issues are therefore considered to be pertinent, affecting the formulation and application of the green economy.

2.3.2.1 Institutional arrangements, integration and implementation

Montmasson-Clair (2012) problematises South African institutional arrangements regarding the green economy, indicating that the current approach tends to be fragmented and uncoordinated in nature. According to Musyoki (2012), as with many other developing countries, one of the key problems that South Africa faces is bridging the gap between policy and implementation of "sustainable development, the Millennium Development Goals and other such globally driven initiatives".

Institutional arrangements regarding the green economy are complex, involving a range of national and sectoral departments and institutions, each with a particular focus and limited in its capacity for an integrated response, yet with far-reaching and deeply interrelated consequences. These arrangements include but are not limited to the following:

- The Presidency, which also oversees the National Planning Commission (NPC) responsible for constructing the National Development Plan (NDP).
- The Department of Environmental Affairs (DEA), responsible for the NSSD1 as well as setting environmental standards and promoting the protection and restoration of ecosystems.

- The EDD, overseeing implementation of the NGP and controlling the Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC).
- The Department of Trade and Industry (DTI), responsible for supporting green industry through certain entities and projects.
- The National Treasury, enacting environmental fiscal reform through taxes, levies and subsidies.
- The Department of Energy (DoE), responsible for issues related to fossil fuels and renewable energy.
- The Department of Science and Technology (DST), overseeing technology policy and research and development.
- Other contributing departments include mining, agriculture, forestry, housing, transport, fisheries, local government, and so forth (Du Plooy, 2010; Montmasson-Claire, 2012; Sustainlabour, COSATU & TIPS, 2013).

The complexity of these arrangements is indicative of the challenges in creating coherent responses in terms of what the green economy transformation entails and how and by whom it takes place. In their review of several government initiatives aimed at responding to resource constraints, for example, Peter and Swilling (2011:18) suggest that these tend to be “ad hoc, sector-specific responses that are not articulated as part of a coherent overall transition to a green economy”, a view supported by Greenpeace, GWEC & EREC (2012):

Though many of these documents are commendable in considering climate change and the need for reduced emissions, the reality is that local, provincial and national plans are disjointed and misaligned, creating confusion, uncertainty and inertia.

These arguments indicate that policies and plans related to the green economy should not only enjoy greater alignment but should also expand the scope of responses beyond specific sectors or indeed beyond the formal economy. Swilling *et al.* (Forthcoming) calls for a shift in green economy terminology and discourse from a ‘sector view’ to a ‘societal view’.

2.3.2.2 Vested interests, power relations and hegemonic regimes

Beyond the aforementioned state departments, there are numerous stakeholders, including organised labour and business, that influence how the green economy is approached. Further issues impacting the transition to a green economy relate to the state's employment of neoliberal principles (COSATU, 2013) as well as the hegemonic forces that influence this transition. These forces and regimes operate at various levels, with Southall (2010) indicating the effect on internal party politics. Peter and Swilling (2011), however, refer to the role of the minerals-energy complex that is influencing the national agenda and perpetuating the imperial mode of living. The reach of these sociotechnical regimes also gives credence to what Brand and Wissen (2012) describe as the state-capital nexus or the connection between state, capital and modes of living. Such embedded relationships ultimately delimit the interpretation and implementation of the green economy in South Africa to a narrowly focused, market-liberalist approach, incapable of delivering inclusivity and sustainable development.

2.3.3 Examining an inclusive green economy

Given the abovementioned constraints and challenges, there is a need for greater participation and a wider formulation of what an inclusive green economy for South Africa may be. South Africa is considered to be one of the most unequal countries in the world; this inequality is evidenced not only in society but also in the way in which the economy is framed in general, namely in terms of 'two economies' (TIPS, 2014). This notion is explored in more depth in the third theme of this chapter (see Section 2.4.2).

However, suffice it to say that the mandate to address issues of inequality, unemployment and poverty would necessarily involve looking beyond formal markets and dominant players, recognising the role and value of the informal, everyday occurrences that contribute to sustainable livelihoods. In this respect, the notion of what constitutes the South African green economy should be analysed in terms of what or whom it includes or excludes as well as where its focus resides.

2.3.3.1 Inclusivity and participation

At first glance, the South African green economy perspective seems to promote extensive social participation in the development of the green economy. The NNSD1 recognises the value of ‘strategic partnerships’, involving the state, private sector, organised labour and civil society in transitioning to a green economy as well as encouraging “all role players to engage in an ongoing and constructive dialogue” (DEA, 2011b:6).

Montmasson-Claire (2012:6) also portrays a positive outlook in terms of government’s approach to including society, stating,

Organised sectoral social dialogue, between and within government, business and labour/civil society, can greatly facilitate the shift to a green economy. It can generate positive outcomes and mitigate any adverse effects of structural change. South Africa is one of the countries that have institutionalised social dialogue.

Beyond national level, several sectoral, provincial and local policies and initiatives that support the transition to a green economy exist. According to Montmasson-Claire (2012), several of the policies and legal measures related to green jobs indicate a ‘bottom-up’ approach. It should, however, also be noted that the level of public participation in drafting the key texts that guide the implementation of the green economy varies from limited to extensive (Montmasson-Claire, 2012), indicating lapses in consistency.

2.3.3.2 Approach and focus areas

South Africa takes a sectoral approach to the green economy (DEA, 2010), having developed several sector-specific responses (Peter & Swilling, 2011) that fall predominantly within the formal sector (DEA, 2014). Several reports track the progress of green jobs and the green economy in South Africa. These include *Green Economy Policy Framework and Employment Opportunity*, undertaken by Montmasson-Claire (2012), *Green Jobs: An Estimate of the Direct Employment Potential of a Greening South African Economy*, compiled by Maia *et al.* (2011) as well as the latest *Green Jobs and*

Related Policy Frameworks: An Overview of South Africa, compiled by Sustainlabour, COSATU and TIPS, (2013). A further related report, the *South African Green Economy Modelling Report* (DEA & UNEP, 2013:iv), assesses the impacts of green economy investments within “selected key economic sectors”. Although the report by Sustainlabour, COSATU and TIPS, (2013) refers to the potential role of informal and small-scale operators within particular sectors, the general focus of these reports and their conceptualisation of green jobs pertain to the formal sector. This indicates a nonexistent to limited attention to green activities or green jobs within the informal sector/economy.

Although these reports in no way constitute the green economy policy environment, they do potentially inform and consequently affect future policies and plans. Therefore, they offer insight into the so-called priority areas that may receive greater resources for transformation in the future. Consequently, this may lead to the informal economy being undervalued or even ignored, thereby negatively impacting the realisation of an inclusive green economy.

2.4 Recognising the informal economy

The level of engagement with and focus on the informal economy is arguably indicative of how inclusive the South African green economy is. It is therefore deemed necessary to evaluate a number of key texts in their framing of and relation to the informal economy, thereby responding to the first research question dealt with in Chapter 4: To what extent do current South African policies and practices related to the green economy engage with the informal economy? The need for including the informal economy in discussions on the green economy is examined in more depth by reviewing the notion of an informal economy in general as well as its role within the context of an inclusive green economy in South Africa.

This section therefore traces the notion of the informal economy in general, indicating various schools of thought and diverse approaches to engagement. The informal economy in South Africa is then analysed along with the state’s approach and conceptualisation.

2.4.1 Perspectives, perceptions and different approaches

The notion of informal economies and their value for and connection to modern, 'formal' economies has been a provocative topic for several decades (Kanbur, 2009). Interest, having fluctuated since Keith Hart first introduced the term 'informal sector' in 1973, has recently been revived. According to Chen (2012:3), this renewed interest in the informal economy can be attributed to several factors:

- Its increased global prevalence, especially since the recent financial crisis, and its emergence in "new guises and in unexpected places".
- Growing recognition of the linkages between informality and growth on the one hand and linkages between informality, poverty and inequality on the other.
- Wider acknowledgement of the fundamental linkages between the informal and the formal economy, with the former thus contributing to the overall economy.

The various linkages are indicative of the complex nature of the economic system, prompting Chen (2012:3) to suggest "that supporting the working poor in the informal economy is a key pathway to reducing poverty and inequality". Globally, perspectives regarding the informal economy have changed progressively, as indicated by Chen (2007) (see Table 2.3).

Table 2.3: Changes in perspectives on the informal economy

| The <i>old</i> view | The <i>new</i> view |
|--|--|
| The informal sector is the traditional economy that will wither away and die with modern, industrial growth. | The informal economy is 'here to stay' and is expanding with modern industrial growth. |
| It is only marginally productive. | It is a major provider of employment, goods and services for lower income groups. It contributes a significant share of GDP. |
| It exists separately from the formal economy. | It is linked to the formal economy – it produces for, trades with, distributes for and provides services to the formal economy. |
| It represents a reserve pool of surplus labour. | Much of the recent rise in informal employment is due to the decline in formal employment or to the informalisation of previously formal employment relationships. |
| It is comprised mostly of street traders and very small-scale producers. | It is made up of a wide range of informal occupations – both 'resilient old forms', such as casual day labour in construction and agriculture, as well as 'emerging new ones', such as temporary and part-time jobs plus homework for high-tech industries. |
| Most of those in the sector are entrepreneurs who run illegal and unregistered enterprises in order to avoid regulation and taxation. | It is made up of non-standard wage workers as well as entrepreneurs and self-employed persons producing legal goods and services, albeit through irregular or unregulated means. Most entrepreneurs and the self-employed are amenable to and would welcome efforts to reduce barriers to registration and related transaction costs and to increase benefits from regulations, and most informal wage workers would welcome more stable jobs and workers' rights. |
| Work in the informal economy is comprised mostly of survival activities and thus is not a subject for economic policy. | Informal enterprises include not only survival activities but also stable enterprises and dynamic growing businesses, and informal employment includes not only self-employment but also wage employment. All forms of informal employment are affected by most (if not all) economic policies. |

Source: Chen (2007:5)

Perceptions about the informal economy influence the approach taken, and Chen (2007; 2012) distinguishes among four schools of thought pertaining to the nature and composition of the informal economy:

- The dualist school

It views the informal economy as separate from and unrelated to the formal sector, referring to it as a 'bazaar' or 'residual economy' involving marginal activities and acting as a safety net, as emerging due to imbalances between population growth rates and the rate of modern industrial employment as well as resulting from skills-jobs mismatches (Chen, 2012; Gumbo & Geyer, 2011).

- The structuralist school

It sees the informal economy as intrinsically linked to the formal economy; the informal economy must be dominated and subordinated to provide cheaper inputs and labour for formal capitalist firms, thereby maximising competitiveness and capitalist development. It is argued that the state is responsible for compensating for the 'unequal relationship' that emerges through commercial and employment regulation (Chen, 2012; Gumbo & Geyer, 2011; Williams, 2010).

- The legalist school

It considers the informal sector as micro-entrepreneurs who opt for informality due to burdensome financing and registration procedures that result from a 'hostile legal system' and proposes that the removal of such 'red tape' will see its decline (Chen, 2012; Gumbo & Geyer, 2011).

- The voluntarist school

It views the informal sector as comprising informal entrepreneurs who choose to avoid regulation and taxation, creating unfair competition, and who should be eliminated through a process of formalisation, which would increase the overall tax base (Chen, 2012).

Each of these schools of thought presents a mere part of the whole, and in reality the informal economy is a much more complex phenomenon, involving

both choice and necessity and being influenced by local, national and global contextual factors (Chen, 2012; Gumbo & Geyer, 2011, Williams, 2007).

Further to these schools of thought, Williams (2007) problematises the dominant paradigms regarding 'formalisation', 'commodification' and 'globalisation' in terms of their estimation of and approach to informal livelihood activities. The formalisation paradigm is argued to be modernistic and reductionist, proposing a linear or hierarchical structure to progress whereby the informal economy is viewed in negative terms, as merely "awaiting imminent destruction" in the name of progress (Williams, 2007:18):

Never is the informal sector represented as resilient, ubiquitous, capable of generative growth, or driving economic change in the formalization thesis.

The commodification or marketisation theory maintains that the production of goods and services is increasingly delivered by the private sector (the market) as opposed to state or civil society, thereby promoting capitalist ideals and negating the value and legitimacy of alternative or nonmarket forms of organisation and provision (Williams, 2007).

The third and final hegemonic paradigm relates to globalisation, which according to Williams (2007:31) "often delimits what is considered valid and feasible to discuss regarding the future of work".

The problem with these metanarratives, according to Williams (2007), lies in the constrictive nature of these paradigms. In other words, they are closed off to alternative modes of development and livelihood strategies, thereby perpetuating unsustainable modes of production and consumption. They also shape perspectives about the informal economy, predominantly taking a pessimistic stance. These negative perceptions also tend to dictate how the informal economy should be 'managed', thereby influencing policies and plans related to the informal economy as seeking to eliminate or formalise rather than value or support it.

2.4.2 The informal economy in South Africa

In South Africa, the notion of two economies was first introduced by then President Thabo Mbeki in 2003, who recognised the ‘structural disjuncture’ between the modern first world or ‘first’ economy and the underdeveloped third world or ‘second’ economy (Du Toit & Neves, 2007; Mbeki, 2003). Mbeki states that this phenomenon is to be connected to the dualist nature of South African society, with wealth and resources concentrated at one end of the spectrum and poverty and disadvantage at the other (Mbeki, 2003). The divide between the ‘two economies’ is said to be systemic and related to several key apartheid legacies embedded within the structure of the economy, leading to the reproduction of inequality and marginalisation. These key legacies relate to the following:

- The centralised, monopoly structure of the core economy.
- The distorted nature of asset distribution, including capital, land and human capital development.
- The spatial legacies of bantustans and apartheid cities (TIPS, 2009).

Conceptually, the notion of the informal economy has a number of different definitions and interpretations that impact upon data collection and measurement of its size and monetary value. The three most prominent terms relevant to this study are ‘informal sector’, ‘informal economy’ and ‘second economy’.

- Informal sector

The ICLS defines the informal sector as referring to “employment and production that takes place in unincorporated small and/or unregistered enterprises” (ICLS in Chen, 2012:8), whereas Statistics South Africa (StatsSA) defines it according to two criteria:

- Employees working in establishments that employ fewer than five employees and that do not deduct income tax from their salaries/wages.

- Employers, own-account workers and persons helping unpaid in their household businesses who are not registered for either income tax or value-added tax (StatsSA, 2013).

- Informal economy

The informal economy is defined by the ILO (2003) as

economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements. Their activities are not included in the law, which means that they are operating outside the formal reach of the law; or they are not covered in practice, which means that although they are operating within the formal reach of the law, the law is not applied or not enforced; or the law discourages compliance because it is inappropriate, burdensome, or imposes excessive costs.

According to the literature (Devey *et al.*, 2003; Hart, 2006), the term ‘informal economy’ is preferable to ‘informal sector’ as the former denotes the heterogeneity of the activities performed across all sectors and the latter denotes an unwarranted separation between the formal and informal.

- Second economy

A further related concept is that of the second economy. The South African government defines the second economy as a “range of activities that are often marginal, outside the regulatory net and survivalist in character” (EDD, 2013), thus indicating an overlap with the informal economy.

For the purpose of this study, the three terms were considered synonymous and the focus was on activities that contribute to sustainable livelihoods and are considered legal, in other words activities that fall within the bounds of the law but are not regulated. Because the focus was on informal activities across all sectors, the description of the informal sector as per StatsSA (2013) means that the quarterly labour force statistics are inadequate for accounting for the size and scope of such activities in South Africa. The StatsSA definition is especially problematic as it precludes subsistence and informal agricultural

workers, who were recognised within this study as contributing to sustainable livelihoods.

The informal economy manifests heterogeneously, ranging from small and micro survivalist business activities in public and private settings, such as pavements, pedestrian malls, transport interchanges and homes, to agrarian activities found in both urban and rural areas (Chen, 2012; Devey *et al.*, 2003; Du Toit & Neves, 2013; Horn, 2011; Kanbur, 2009; Skinner, 2008; Wills, 2009). Although the informal economy cuts across divisions of race, class and gender, several studies have shown that the majority of actors are black, impoverished and female (Du Toit & Neves, 2012; Horn, 2011; Skinner, 2008). This has led authors such as Musyoki (2012) and Chambwera, MacGregor, & Baker (2011) to suggest that the informal economy offers vast opportunities for sustainable and ‘just’ development as interventions in the informal economy may help to uplift the poorest and most disenfranchised. Chen (2012) portrays the gendered nature of informal actors and their activities on a continuum from survivalist to more profitable (see Figure 2.1).

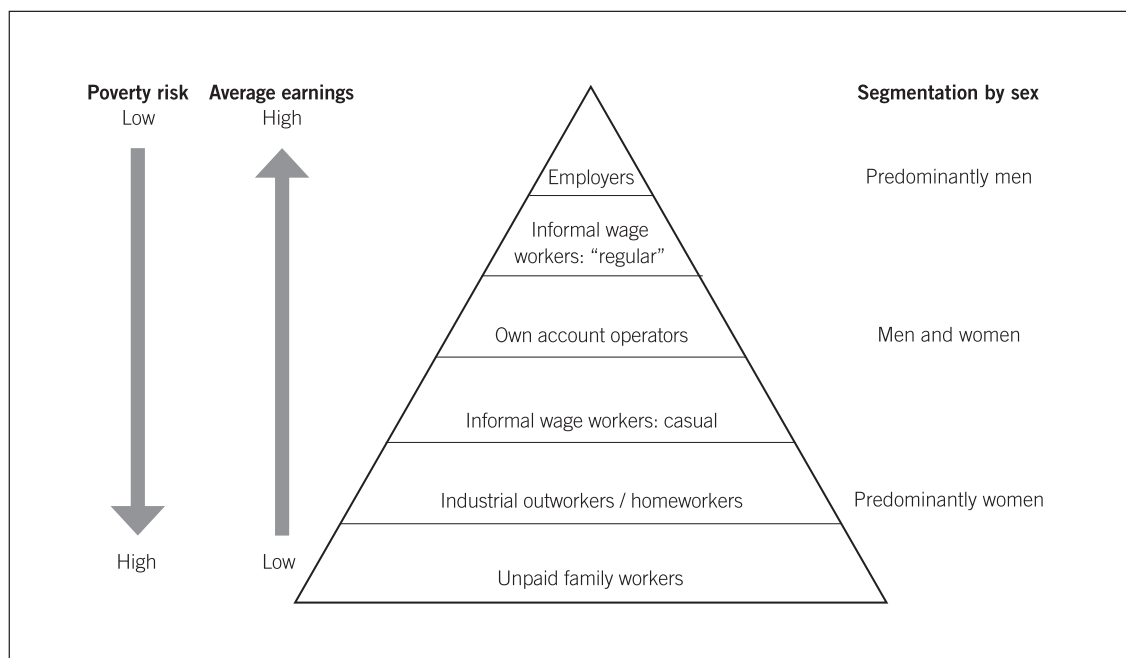


Figure 2.1: Continuum of informal economic actors and activities

Source: Chen (2012)

The economic activities taking place in the informal economy are mostly unrecorded and therefore difficult to measure (Chen, 2012; Wills, 2009). Further issues affecting accurate estimates of the size and contribution of the informal economy to for example GDP relate to definitional debates over what needs to be included within such measures as well as methodological debates over how it should be calculated (Chen, 2012; Kanbur, 2009; Ligthelm, 2006; Saunders & Loots, 2005). For this reason, estimates of the size and monetary value of informal activities that contribute to a green economy are not forthcoming, falling outside of the scope of this study.

Regardless of these uncertainties, Chambwera *et al.* (2011) suggest that the informal economy offers much value in delivering sustainable development ideals, including the green economy. Government planners, donors and nongovernmental organisations (NGOs) therefore need to consider the informal economy alongside the formal economy if they plan to “help lift up the wellbeing of the poor and address global challenges such as climate change” (Chambwera *et al.*, 2011:i).

The South African approach to the informal economy, however, indicates reluctance in recognising this value. Being the first to acknowledge the second economy in South Africa, Mbeki (2003) identified the second economy as having several debilitating characteristics:

The Second Economy (or the Marginalised Economy) is characterised by underdevelopment, contributes little to GDP, contains a big percentage of our population, incorporates the poorest of our rural and urban poor, is structurally disconnected from both the First and global economy, and is incapable of selfgenerated growth and development.

This view of the second economy would have it perceived as a problem that requires fixing, elimination or formalisation. According to Gumede (2008:15),

[T]he development of the ‘second economy’ has to be carried almost exclusively by the democratic state. The level of underdevelopment of this economy and the small size of its market makes it an unattractive target for the industrial economy. In a sense, the existence of the ‘second economy’ is

a reflection of both the legacy of apartheid colonialism and market failures which render the first economy incapable, on its own volition, from contributing to the elimination of the two economies' divide.

Dawa and Kinyanjui (2012) problematise such reactive approaches to the informal economy. Instead, they call for a proactive approach in incorporating the informal economy into the broader green economy, "without waiting for its upgrading or formalisation". Du Toit and Neves (2007:iv) concur with this perspective, indicating the interconnected relationship between the first and second economies, which are "often thoroughly interdependent, supplementing or subsidising one another in complex ways". They suggest the following:

Rather than 'bringing people into' the mainstream economy, policy-makers would do better to strengthen existing measures to reduce vulnerability, to consider ways of counteracting disadvantageous power relations within which people are caught, and to support the livelihood strategies that are found at the margins of the formal economy (Du Toit & Neves, 2007:iv).

As indicated elsewhere, the second economy became an area of focus under President Thabo Mbeki's regime, leading to the development of the Second Economy Strategy, presented under the Accelerated Shared Growth Initiative of South Africa in 2009 and featuring 11 'headline strategies' (TIPS, 2009). The general elections of that same year saw the inauguration of President Jacob Zuma; under his regime, the NGP was developed, focusing on growth (including 'green growth') as a means of addressing poverty, unemployment and inequality in South Africa.

In order to co-ordinate the development of the NGP and to promote coherent economic development, the EDD was established (EDD, 2013). Recognising the "dynamic relationship between growth, employment and development", the department, under Ebrahim Patel's leadership, proposes an integrated approach to socioeconomic policies as opposed to "'silo' based departmental programmes" and as achieved "through participatory, coherent and

coordinated economic policy and planning for the benefit of all South Africans” (EDD, 2013).

Under this mandate, the EDD’s programme for Economic Policy Development includes the second economy as a subprogramme that aims to “develop policies that will transform second economy activities into dynamic, competitive activities that are part of the economic mainstream” (EDD, 2013). The green economy, in contrast, is considered to be a subprogramme of the Economic Planning and Coordination programme, with the objective to “identify, develop and support projects, incentives and other measures to promote industries that create jobs and have lower or no carbon emissions in the energy, agriculture, manufacturing and service sector, especially tourism” (EDD, 2013).

This separation of the second economy and the green economy as distinct subprogrammes may be indicative of the general disconnect between policies and plans related to the green economy and the informal economy, an issue that will be analysed in depth in a later chapter.

2.5 Connecting the green economy to the informal economy

Considering the abovementioned disconnect, this section aims to connect the informal economy first to the broader notion of sustainable development and then more specifically to the green economy, which is considered as a pathway to sustainable development. These connections are made explicit through the characterisation of the informal economy in the context of an inclusive green economy aimed at sustainable development and poverty eradication, followed by a general exploration of evaluative criteria for policy approaches and interventions aimed at linking the formal and informal economies.

2.5.1 Sustainable development and informality

What is discussed in this section is not an in-depth exploration of the notion of sustainable development but is rather an indication of how different

approaches to sustainable development influence perspectives on informal activity or work. Throughout this chapter, various extremes in perspectives and views have been identified, for example in relation to the green economy as well as to the informal economy. The point, however, was not to indicate the duality or 'either/or' nature of these views but to recognise that they exist on a continuum.

Within the sustainable development discourse (Clapp & Dauvergne, 2011; Gallopin, 2003; Mebratu, 1998; Rogers *et al.*, 2005; Sneddon, Howarth, & Norgaard, 2006), various approaches and worldviews are recognised that impact on how sustainable development is conceptualised and operationalised. For Williams (2007:262), most green commentators are concerned with the "inconsistency between what is demanded of the earth and what the earth is capable of supplying". He further suggests that not only do the different approaches to addressing this issue produce different solutions; they also "produce the contrasting green visions of the future of work". The spectrum of perspectives on and approaches to sustainable development and the nature of work is illustrated in Table 2.4.

Table 2.4: Perspectives on and approaches to sustainable development and work

| Degree of sustainability | Weak | Moderate | Strong |
|------------------------------|---|----------|---|
| | | | |
| Perspective | Anthropocentric. Sees nature as separate and subordinate to humans. | | Ecocentric. Asserts humans and nature are not separate and have equal rights and value. |
| Worldview | Market liberalist. | | Bioenvironmental. |
| Approach | Reformist green. | | Radical green. |
| Focus of intervention | Supply side. Expand resource base through efficiency measures and substitutes. | | Demand side. Reduce unnecessary degradation and resource use. |
| Instruments | Technological progress. Economic modernisation. Green consumerism. | | Increased localisation. Small-scale, decentralised way of life based on greater self-reliance. |
| Proposition | Green growth. It is possible to improve the efficiency of economic growth. Economic growth can continue without the need to redistribute costs and benefits more equitably. Predominantly 'business as usual' with slight reform. | | Limits to growth. Views earth as finite. Humans need to rethink both their attitude to nature as well as reconceptualise economic 'progress' and 'development'. 'Small is beautiful'. |
| Perspective on work | Formal work relations seen as promoting open trade and as connected to globalisation, development and progress. Narrow interpretation of green jobs as confined to formal sectors. | | Informal work is central and essential to self-reliance and sustainable development. Broad interpretation of green jobs as related to livelihood strategies and resilience to climate change. |

Source: Own compilation based on Cook *et al.* (2012) and Williams (2007)

For Williams (2007), 'reformist greens' and 'radical greens' offer counternarratives (albeit from a lesser to a greater degree) to the metanarrative of globalisation (discussed in Section 2.4.1). The reformist greens approach is seen as largely business-as-usual, and as denoting 'weak sustainability'. In contrast, the radical greens approach to sustainable development and interpretation of the value of informal work is considered to be indicative of 'strong sustainability'. In terms of the level of sustainability, Williams (2007) also recognises a third way, 'moderate sustainability', which incorporates aspects of both approaches.

The South African vision for sustainable development would suggest that it employs moderate sustainability as elements from both approaches are evident in its vision:

South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration (DEA, 2011b).

If, as Williams (2007) suggests, the approach to sustainable development implicates the approach to work, it may be argued that the nation's approach should value both formal and informal activities as contributing to sustainable development. In other words, the informal economy should be viewed as being connected to sustainable development in general and strong sustainable development in particular. The following section explores the different ways in which the informal economy may be connected to both sustainable development and the green economy.

2.5.2 Connections: The case for inclusion

At this stage, it is necessary to explore the case for including the informal economy in discussions on the green economy by recognising several barriers and opportunities as well as considering the various ways in which the informal economy offers value and contributes to sustainable

development. The informal economy is “an important component in the social, economic and political arenas of Africa” (Dawa & Kinyanjui, 2012), and several traits are recognised as being significant in creating an inclusive green economy:

2.5.2.1 Formal-informal linkages

Rather than existing in complete isolation from the formal economy, the informal economy consists of a continuum of activities ranging from survivalist to enterprising (Davies & Thurlow, 2010). The majority of informal economy operations are connected to formal firms and the formal sector through a range of forward and backward linkages and complex interactions (Chambwera *et al.*, 2011; Chen, 2012; Davies & Thurlow, 2010). These linkages include (i) individual transactions through open market exchanges, (ii) the production and exchange of goods through subsectors or “networks of independent units involved in the production and distribution of a particular product or commodity”, (iii) as part of value chains (Chen, 2012:12) and (iv) through the flow of raw materials, equipment, finance, and so forth (Chambwera *et al.*, 2011).

In most of these exchanges, however, power imbalances exist whereby formal firms dominate the relationship in controlling transactions and setting the terms and conditions of trade (Chen, 2012), thus revealing the need for greater inclusion and protection of entities and actors in the informal economy. For a conceptual framework for recognising formal-informal sector linkages, see Figure 2.2.

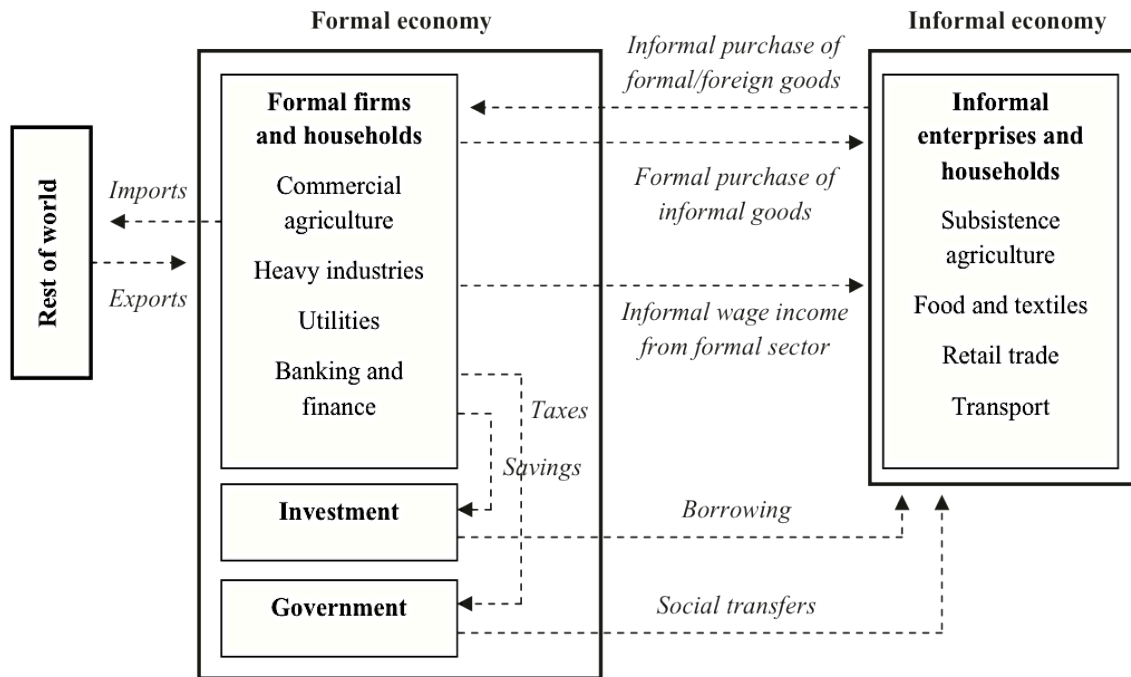


Figure 2.2: Formal-informal economy linkages

Source: Davies & Thurlow (2010)

2.5.2.2 Regulating for economic diversity

According to Chen (2012), the formal regulatory environment in general often ignores entire categories of the informal economy, which can be detrimental:

A **missing** regulatory environment can be as costly to informal operators as an **excessive** regulatory environment (Chen, 2012:14).

Attempts to either ignore or eliminate the informal economy tend to have negative effects, such as eviction, harassment and bribery, and Chen (2012) therefore argues for a more comprehensive approach to formalising the informal economy that is context specific in both design and practice. Such a comprehensive approach would require a reconsideration of macroeconomic policies as there is, according to Saunders and Loots (2005:100), a one-directional causal relationship between the formal and informal economies:

...the results of the causality test suggested that macro-economic policies aimed at the formal economy will not necessarily 'trickle down' to the informal economy, while macro-economic policies aimed at the informal economy may well have a profound effect on the formal economy.

Chen (2012) also suggests that social and economic policies that appropriately address the risks and constraints faced by the entities and people working in this sector would require their engagement and inclusion in the planning of such policies. This would, according to Chen (2012:20), involve improved measurement of the informal economy, creating increased “visibility in official statistics” and greater empowerment through the strengthening of informal worker organisations and as related to increased “representative voice in rule-setting and policy-making processes”.

The informal economy offers an alternative economic model, being “incompletely capitalist in character” (Du Toit & Neves, 2012:136), playing “a significant role in the restructuring of capitalism in the era of globalization” (Dawa & Kinyanjui, 2012) and raising insightful questions about “the interplay between moral and economic values in the decisions individuals make about how they structure their economic lives” (Godfrey, 2011:270). As Du Toit and Neves (2012) point out, the informal economy defies the neoclassical economic logic of maximising profit and minimising costs, having a broader range of objectives, including being productive and income generating but also being reproductive, orientated to sustaining household survival by bolstering food security and facilitating social connectedness.

In an attempt to bridge the orthodox and the unorthodox, Chen (2012) suggests that a new economic paradigm or ‘hybrid economy’ is needed that is open to such duality, embracing both “the traditional and the modern, the small scale and the big scale, the informal and the formal”, and that addresses power imbalances and protects the vulnerable. In the context of an inclusive green economy, this hybrid economy would, for example, allow waste pickers access to waste as well as the opportunity to bid for solid waste management contracts alongside large corporations and allow for the equitable integration of informal transport workers into public and private transport systems (Chen, 2012).

In contrast to this view, Samers (2005) suggests that proponents of ‘diverse economies’ tend to suffer from ‘myopia’ when extolling the virtues of the

informal economy. He explains that informal economies do not always lend themselves to systems of reciprocity and obligation and at times even involve exploitative and illegal activities. Indeed, the informal economy constitutes a broad spectrum of activities ranging from legal to illegal (Chen, 2012). It can also be a source of both environmental restoration (Blignaut, Marais, Rouget, Mander, Turpie, Klassen, & Preston, 2008) and environmental destruction (Baksi & Bose, 2010; Biswas, Farzanegan, & Thum, 2012).

Baksi and Bose (2010) identify several informal economic activities, including artisanal mining, bleaching and dyeing of garments, leather tanning and brick manufacturing that have a considerable negative impact on the environment. These activities are argued to act as sites of 'pollution leakage', negatively affecting the efficacy of environmental regulation (Baksi & Bose, 2010; Biswas *et al.*, 2012).

This study does not dispute the existence of 'nongreen' or environmentally destructive activities in the informal economy; however, it does argue that the informal economy should not be ignored. Policies and plans tying the green and informal economies together should therefore aim at maximising environmentally protective or restorative activities whilst minimising environmentally destructive and exploitative activities.

2.5.2.3 Employment potential

According to Dawa and Kinyanjui (2012), the informal economy accounts for up to 72% of employment in sub-Saharan Africa, rendering it significant in the context of sustainable development and poverty eradication. Chambwera *et al.* (2011:1) support this view by indicating the importance of the informal economy to the urban and rural poor, and especially to women:

Since it provides employment and income for the most impoverished – particularly women – it is a key route to achieving the millennium development goals (MDGs) of eradicating extreme poverty and hunger, promoting gender equality and empowering women.

Chen (2012) describes informal employment as a growing reality in the global economy, constituting the main source of income for most people in the developing world, and for this reason, it is argued that the informal economy should be valued and integrated into economic planning and legal frameworks (Chambwera *et al.*, 2011; Chen, 2012; Dawa & Kinyanjui, 2012).

Although conservative measures of the informal sector, as presented by StatsSA (2013), would suggest that the size of the sector is markedly lower for South Africa (Davies & Thurlow, 2010; Skinner, 2011), the role of the informal economy in providing a buffer between employment and unemployment in times of financial crisis cannot be negated or underestimated (Chambwera *et al.*, 2011; TIPS, 2009). Chambwera (2012) also recognises the magnitude of global employment resulting from the informal economy (1.8 billion) as opposed to the formal economy (1.2 billion). He therefore suggests that the informal economy be incorporated in terms of transitioning to a green economy:

In a time when opportunities in the formal economy are dwindling, the informal sector will provide and even larger share of employment. Using the informal sector effectively can greatly accelerate the transition, as it touches on huge numbers of people and a vast amount of resources (Chambwera, 2012).

2.5.2.4 Complex social networks

The informal economy offers alternative approaches that may be more conducive to an inclusive green economy and that are representative of the complexity of the human-environment system. Described as “community economies that secure livelihoods, cultural identity and employment” (Dawa & Kinyanjui, 2012), informal economies produce complex networks of reciprocation and obligation. These networks of ‘trust and morality’ are embedded within the sociocultural environment, facilitating economic activity, and although present in all markets, they are “more significant in contexts where formal market institutions are absent or weak” (Du Toit & Neves, 2012:132). Chambwera (2012) supports this view, referring to informal actors

as being “closely linked to their communities, providing valuable networks for resource management, energy requirements and climate change”.

Several authors (Capra, 2002; Cilliers, 1998, 2000; Hosking, 1997) highlight the importance of collaborative processes and active networks for producing dynamic interactions that are vital to the functioning and resilience of complex adaptive systems. Whilst such networks may induce conflict, tension and skewed exchanges, they are also significant in enabling the poor “to mitigate poverty and the effects of vulnerability” and act as a form of “private social protection”(Du Toit & Neves, 2007:43).

The nature and value of social relationships and social positioning, however, cannot be underestimated. Such informal social networks are said to have both enabling and debilitating effects on the ability to participate economically (Du Toit & Neves, 2007; 2012; 2013). It is therefore necessary to have policies that ameliorate adverse power imbalances between the poor and larger economic formations and that value and support these “fragile survival strategies” (Du Toit & Neves, 2007:54).

A green economy in the context of sustainable development and poverty eradication would require greater networks of dynamic interaction and collaboration that transcend not only the human-nature divide but also the formal-informal divide. This necessitates interaction among these networks in order to increase knowledge of the core problems and to develop appropriate solutions. In planning for a green economy, both the formal and informal economies should be recognised as contributing to a larger, more complex system:

Green thinking need not consider formal and informal economies to be either/or alternatives. The two can be seen as potentially complementary aspects of a complex, political process of radical reform beyond the control of any single agent responsible for achieving a green economy (Torgerson, 2001:482).

2.5.2.5 Sites of resilience and opportunity

Informal economies are capable of “responding to socioeconomic shocks and political changes”, offering alternative economic models through their unique ways of organising capital and distributing surplus (Dawa & Kinyanjui, 2012). Du Toit and Neves (2007) describe the capability of participants in their study to leverage and supplement their meagre domestic resources in order to cope with shocks and sustain informal economic activities, thereby acting as sites of resilience and possibility (Dawa & Kinyanjui, 2012).

Vermeulen, Dossou, Macqueen, Walubengo, and Nangoma, (2008) describe how impoverished local communities in Benin, Kenya and Malawi, faced with changes in weather patterns, have found innovative ways of coping, relying on a mix of technical solutions, such as crop diversification, and institutional solutions, such as new ways of sharing. Vermeulen *et al.* (2008) suggest that such communities are adapting to climate change without external influence and that support of such local initiatives and institutions may prove to be a more effective strategy for adapting to climate change than relying on top-down initiatives only. The experiences and everyday responses found in the informal economy therefore offer alternative and valuable strategies that should not be dismissed or go unrecognised in the context of an inclusive green economy.

2.5.2.6 Connection with ecological services

Musyoki (2012) points to the deep connection between rural livelihoods and ecological services, which impacts women in particular. She suggests that “the concept of sustainable rural livelihoods is especially relevant to exploring gender and poverty issues in the emerging green economy policy”.

Within the green economy context, a study by Blignaut *et al.* (2008:8) indicates that areas of high ecosystem goods and services provision in South Africa correspond to ‘pockets of poverty’ as well as being important from a biodiversity perspective:

It is ironic that the poorest of the poor are to be the stewards of some of the most valuable assets in South Africa. In the past the poor has managed these valuable – and even invaluable – assets to the benefit of all; not enjoying any return on their labour. They were effectively subsidising the affluent. Now is the time to make the asset base work for them (Blignaut *et al.*, 2008:15).

Blignaut *et al.* (2008:iii) go on to argue that rural and poor communities may even benefit from the development of markets for ecosystem goods and services and that, if well managed, these new economies “can act as a bridge to enable development of new market opportunities” for those operating in the second economy, thereby addressing issues of poverty and stimulating growth. The argument that policies related to the green economy should then also consider green activities taking place in the informal economy is thus further bolstered, and Blignaut *et al.* (2008) list a range of activities performed by the rural poor that enhance ecosystem services on several levels and that contribute to overall environmental sustainability, for example the following:

- Providing sustainable energy in the form of biomass through the harvesting of alien plant species, whilst addressing issues of bush encroachment and improving biodiversity conservation and water catchment management.
- Reducing carbon emissions through the provision of renewable fuel in the form of biogas from biodegradable matter, including animal manure.

By linking the ‘supply’ activities performed by the rural poor to the demand for ecosystem services in urban and business environments, Blignaut *et al.* (2008:39) estimate that such a market may be worth upward of “R17 billion/year with the potential to generate 350 000 person-years of employment opportunities”, whilst positively impacting conservation efforts and reducing demand for social welfare.

2.5.2.7 Green jobs and livelihood activities

The actors, agents and entities operating in the informal economy are neither shielded from nor indifferent to the effects of climate change; instead, they produce alternative coping strategies, as evidenced by informal waste collection and recycling efforts (Dawa & Kinyanjui, 2012; Quazi & Dobson, 2012; Raghupathy & Chaturvedi, 2013). This view is supported by Acey and Culhane (2013) who indicate that households and communities in Africa are implementing green livelihood strategies, often driven by necessity, that include the adoption of household-scale energy technologies, organic waste management, urban farming, and so forth.

Coping strategies such as these indicate that there are activities taking place within the informal economy that contribute to a green economy. These green activities are akin to green jobs, as described by the DEA (2010; 2014) and Musango, Brent, and Bassi (2014), in other words pertaining to the restoration of ecosystem services and the mitigation of negative impacts on the environment, including activities that protect biodiversity, reduce use of/demand for energy, materials and water, reduce carbon emissions and reduce and/or circumvent all forms of pollution and waste.

According to Acey and Culhane (2013:i), however, current debates about what constitutes green jobs are silent about the “ everyday practice of green livelihoods carried out by the urban poor”, instead focusing on large-scale, formal sector responses. Such approaches are considered to be problematic as they obscure the transformative value of small-scale technologies and ignore the contribution of the informal economy. Acey and Culhane (2013) therefore argue that the conceptualisation of green jobs should take a ‘bottom-up’ or ‘people-centred’ approach and that the definition of green jobs should be expanded:

An expanded definition of green jobs would include activities that reduce natural resources depletion and degradation, enhance livelihoods, reduce vulnerability and increase security of individuals and families. In fact, it may be that a useful working definition of a green job has more in common with

strategies of rural livelihood generation and self-sufficiency (Acey & Culhane, 2013:1048).

Rudin (2013:37) also contests the current conceptualisation of green jobs, suggesting that dominant neoliberal expectations require green jobs to “maximise profit as a condition of both their coming into being and their duration” and therefore “are part of the very profit-maximising economy responsible for climate change”. Rudin proposes instead the notion of ‘climate jobs’, which are primarily public jobs. These jobs, however, do not preclude private sector involvement and also “embrace other organisational forms ranging from cooperatives, to NGOs and the livelihoods of small-scale agriculture” (Rudin, 2013:39). Rudin, distinguishing between green jobs and climate jobs, suggests the following:

Green jobs are part of the business-as-usual private profit realm whereas climate jobs are part of the public realm determined solely by the imperatives of climate change. More especially, green jobs, being part of the Green Economy, are:

- (a) Created and sustained only for as long as profit is maximised;
- (b) Located only in those areas of the Green Economy where suitable profit is anticipated.

Climate jobs are:

- (a) Independent of the market and
- (b) Dependent and sustained entirely by the imperatives of climate change, as directed by public authorities as the only body with the power and legitimacy to act solely in the public interest (Rudin, 2013:40).

A further issue pertaining to green jobs is related to the conditions and quality of the employment. According to Montmasson-Claire (2012:14), “A green economy does not necessarily lead to better work conditions or quality of employment.” He also points to the misconception that all green jobs are necessarily considered decent work or take place in safe and healthy environments. Cunniah (2012:134) concurs, stating that “‘green’ employment is not decent by definition” and therefore “requires careful stewardship from public authorities to ensure workers are able to exercise their rights”. Waste pickers, for example reportedly operate in ‘hostile social environments’, are

vulnerable to exploitation by middlemen and are exposed to tremendous health and safety risks (Jones, 2013; WIEGO, n.d.). With these challenges in mind, is it not fitting that government would consider interventions that may protect the exploited whilst improving the working conditions of these workers?

For Olsen (2012:136), challenges such as these need to be addressed by national policy strategies in order to build “a Just Transition towards an environmentally respectful and socially empowering economy”. It may be argued that a broader conceptualisation of green jobs is significant for a broader interpretation of the green economy and indeed relevant to strong sustainable development. The importance of such an interpretation is demonstrated by Olsen (2012:148) who states that “many national governments are developing their own definitions either to serve as a basis for collecting statistics or to make policy choices”. Policy choices for the purpose of a green economy in the context of sustainable development and that aim at a just transition would therefore need to be cognisant of those green activities that take place within the informal economy and that contribute to sustainable livelihoods.

The formulation of green jobs within the context of this study is therefore not limited to the formal sector, nor is it limited to neoliberal logics, but it extends to the grassroots experiences and sustainable green employment and livelihood activities of those operating in the informal economy. Indeed, as indicated by Du Toit and Neves (2012; 2013), economic informality is premised upon multiple objectives, being far more nuanced and differentiated, that according to Acey and Culhane (2013:i) include “income generation, community empowerment and environmental preservation”.

2.5.3 Policy approaches and intervention criteria

The formulation of policies and plans that connect the informal economy to the green economy requires an understanding of the informal economy that extends beyond assumptions that informal activities in form or practice are

unorganised and chaotic. As indicated by Guha-Khasnobis, Kanbur, and Ostrom, (2006), policy interventions taking this stance have often resulted in disaster as they negate the value of the community structures that are in place. For this reason, they advocate for an approach that recognises complexity and contextual realities and therefore suggest that several evaluative criteria be incorporated when planning for the informal economy in general. These criteria include the following (Guha-Khasnobis *et al.*, 2006):

- Subsidiarity in a multilevel system

Rather than engaging in the dialectic between the centralisation or decentralisation of government agency, Guha-Khasnobis *et al.* (2006:10) suggest that interventions be located “as close as possible (in terms of level of government and/or geographically) to where it is meant to influence markets or groups” but simultaneously be embedded within a larger system of government. This would suggest a multilevel approach whereby international and national policies and plans point to the interconnection between the green economy and the informal economy but whereby policy refinement and implementation are done at regional and local level.

Thus far, critiques of the green economy on a global scale (Dawa & Kinyanjui, 2012) have indicated a lack of incorporation. Along with the disconnect between policies for the second economy and the green economy in South Africa (as represented by subprogrammes of the EDD), further indication of the national propensity to ignore the relationship between the two is found. Regional policies such as those found in KwaZulu-Natal, the Western Cape and Gauteng seemingly follow this trend, having separate plans for the informal economy and the green economy.

- Balance between ‘formal’ interventions and ‘informal’ practices

According to Guha-Khasnobis *et al.* (2006), overregulation may be counterproductive, whereas Chen (2012) suggests that underregulation may be equally obstructive. The key lies in balancing the need for formal rules with the ‘fine-tuning’ of informal rules and norms “that are generally understood

and may potentially be relatively effective” (Guha-Khasnobis *et al.*, 2006:13). Such a process would, according to Guha-Khasnobis *et al.* (2006:13), involve an in-depth, participatory approach to discovering “the sources of problems and how new formal rules might solve the problems being faced”.

- Implementation capacity

Interventions need to be designed to match both the implementation capacity of government and the absorptive capacity of the recipients. In some instances, this may require building the desired capacity before implementation (Guha-Khasnobis *et al.*, 2006).

- Complementary interventions

Successful interventions require the support of a strong institutional framework and are generally delivered as part of a package of complementary measures, which may be served by a network of different actors (Guha-Khasnobis *et al.*, 2006).

- ‘Voting with their feet’ as evaluation criterion

Guha-Khasnobis *et al.* (2006) further suggest that the success or failure of an intervention may be measured in terms of the number of people that is compliant or noncompliant. The level of compliance is indicative of the degree of support and buy-in. If few people support the intervention, it will not be effective and will need to be reconsidered or adjusted. Contextual relevance and democratic participatory processes are thus vital to the success of such interventions.

For Chen (2012) and Quazi and Dobson (2012:2), the exclusion and marginalisation of informal workers are related to a “lack of voice, visibility and validity”. Within the context of this study, it would suggest that policies and plans for an inclusive green economy would need to give a ‘voice’ to the informal actors and support the empowerment of workers through organisation and participation in policy processes, improve ‘visibility’ in terms of statistics and representation, and affirm ‘validity’ by recognising the value of

green activities taking place in the informal economy as contributing to sustainable development and poverty eradication.

Of course there are no 'one-size-fits-all' solutions to complex problems, which is why each intervention must be contextually relevant and appropriate. This is a view shared by Chen (2012:20):

There is no single overarching policy intervention to address the concerns associated with the informal economy – a range of interventions need to be considered and implemented. Further, these interventions need to be tailored and targeted to meet the specific constraints, needs and risks of different groups of informal workers.

This then leads to the final research question of this study: How can the green activities taking place in the informal economy be supported?

2.6 Summary

The notion of a green economy in the context of sustainable development and poverty eradication is highly contested. Several pathways for a green economy based upon the conceptualisation of the term exist. These pathways indicate a range of perspectives, interpreting the green economy on a scale ranging from broad to narrow.

In distinguishing between broad and narrow interpretations, it is reasoned that several features may be identified as belonging to each. Broader interpretations of the green economy value the social dimension of sustainable development, thereby incorporating democracy and transparency into its processes. A broader view of the green economy is open to contestation and alternative modes of thinking, considers the limits to growth and seeks to transform unsustainable production and consumption patterns. Furthermore, it engages with institutional issues of power and participation, recognises the interdependence between the economy, society and the environment and focuses on resilience and the creation of sustainable livelihoods. This last point would suggest that a green economy looks beyond greening of certain formal sectors but also engages with the informal

economy in recognising and supporting those activities that are conducive to sustainable development.

Narrow interpretations, conversely, suggest a technocratic, modernistic, reductionist approach. Although a narrow view of the green economy may recognise the need to incorporate the social dimension of sustainable development, it deems itself to be a priori, being closed off to alternatives. It limits participative and transparent processes, perpetuates unsustainable patterns of behaviour and intensifies the human-nature divide. It also continues to produce and exacerbate inequality and injustice through the suppression and marginalisation of the voices on the periphery.

Although the South African green economy perspective incorporates aspects of the social dimension of sustainable development, such as participation and democracy, it is found to be narrowly focused on the greening of specific sectors as opposed to the whole economy. At the same time, it promotes the notion of an inclusive green economy, relying on the notion of green growth to resolve issues of unemployment, inequality and poverty. Institutional arrangements and power relations, however, hinder the realisation of these ideals. The aim to achieve an inclusive green economy is similarly problematic in its approach and in its focus on green jobs as taking place predominantly within the formal sector. This raises the question, How inclusive can the South African approach to the green economy be if it does not engage with the informal economy?

The informal economy is a vibrant and growing phenomenon both globally and in Africa, offering opportunities for and lessons in resilience and innovation. The characteristics of the informal economy indicate that it may be conducive to a green economy, contributing in heterogeneous ways to supporting the ideals of sustainable development. Although the informal economy in South Africa may be smaller than in the rest of Africa (Davies & Thurlow, 2010), it is no less valuable to an expanded and contextually relevant green economy policy environment. This is especially true when considering that South Africa is sub-Saharan Africa's largest CO₂ emitter and

one of the largest emitters in the world (Greenpeace, GWEC & EREC, 2012) as well as struggling with high levels of poverty, inequality and unemployment.

From the literature (Acey & Culhane, 2013; Blignaut *et al.*, 2008; Chambwera *et al.*, 2011; Du Toit & Neves, 2007, 2013; Musyoki, 2012; Raghupathy & Chaturvedi, 2013), glimpses appear of what green activities are and how they may contribute to sustainable development and poverty eradication, again decidedly relevant in the context of a nation that is struggling with high unemployment, poverty and inequality. These glimpses are the first step in expanding current notions of a South African green economy in general and an inclusive green economy in particular. It therefore prompts the second and third research questions, asking what green activities are taking place in the informal economy in South Africa and how these can be supported. These questions warrant further in-depth investigation, the answers to which may create a new lens for thinking about the informal economy, its connection to sustainable development and its role within the green economy in South Africa. In order to appreciate this new perspective, a broader interpretation of the green economy in general and green jobs in particular is required. Such broader interpretations and altered perspectives are necessary for a more informed and contextually relevant policy and planning environment for an inclusive green economy.

Chapter 2 comprised a review of relevant and recent literature pertaining to the study, thereby informing the theoretical framework. Chapter 3 delves into the research design and methodology of the study, outlining the methods and instruments used for data gathering as well as the criteria and techniques for analysing the data. Chapter 3 therefore forms the methodological framework of the study.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

This chapter describes the structured framework and process followed in order to address the research problem as well as the particular research methods, instruments and data analysis techniques used in the study. In order to address the research problem and its associated research questions, the research design incorporated multiple methods and tools. This chapter therefore first introduces the overall research design and research methodology that informed the study and then considers each research question in terms of the research instruments and data analysis processes relevant to each question.

3.1 Research design

According to Babbie (1998:108), “The best study design uses more than one research method, taking advantage of their different strengths.” Blaxter, Hughes, and Tight (2000) identify four approaches to research design relevant to the social sciences, namely action research, case studies, experiments and surveys. They also acknowledge that these classifications are neither definitive nor necessarily exclusive and that in reality a research project may involve several of these approaches simultaneously. Babbie (1998) further distinguishes between field research, including participant and direct observation, and unobtrusive research as related to content analysis, the analysis of existing statistics and historical/comparative analysis. This study incorporated both field research and unobtrusive research, thereby utilising a variety of methods in its design. Figure 3.1 represents the research design and illustrates the process followed in order to conceptualise the research problem and associated research questions, whilst indicating the required objectives to be achieved in order to answer each research question.

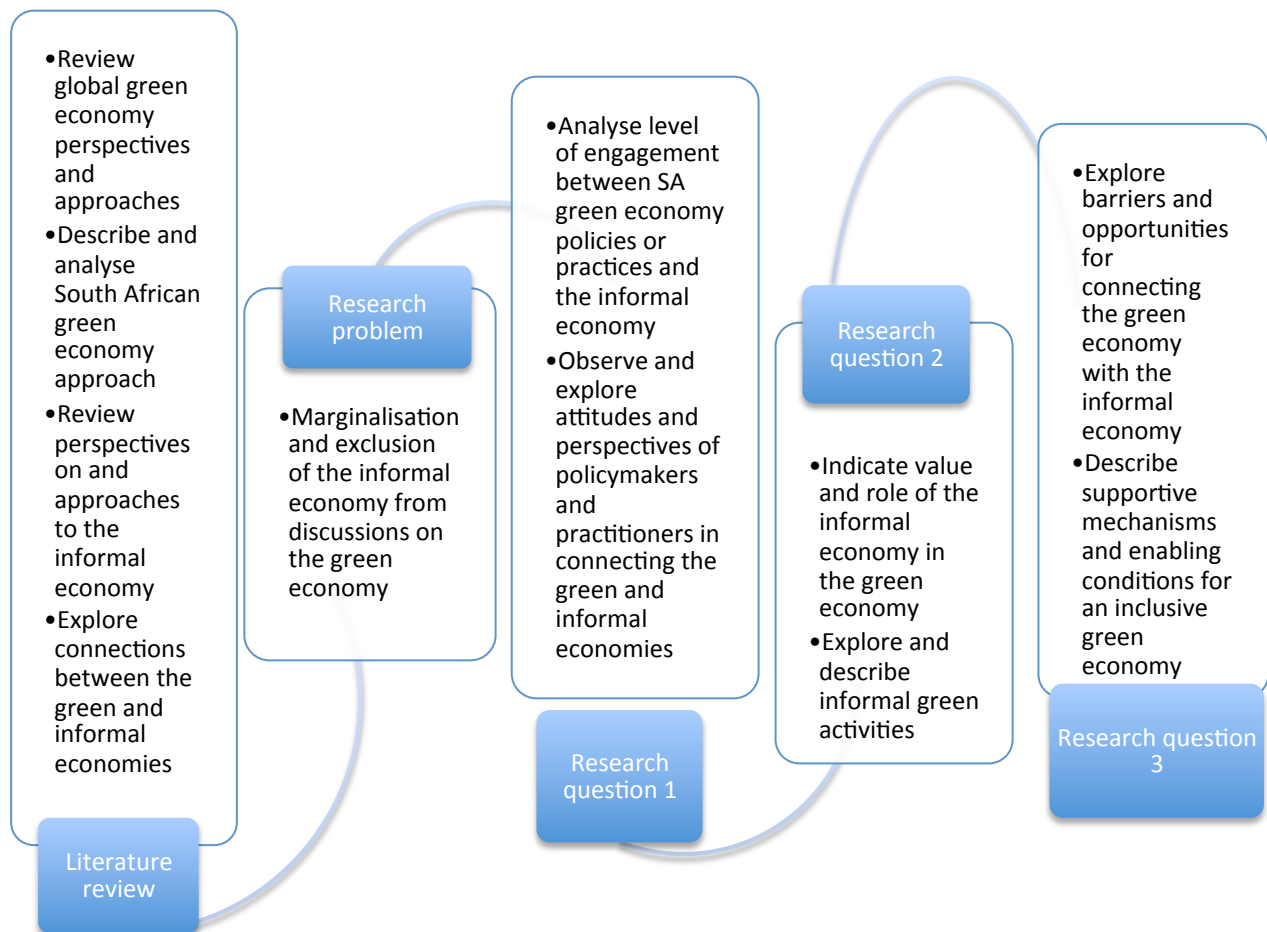


Figure 3.1: Research design

3.2 Research methodology

As previously stated, this study incorporated both unobtrusive and field research, the latter being described by Babbie (1998:280) as “a theory-generating activity”, which is frequently associated with grounded theory. Grounded theory is described as being inductive, beginning with observations and then proposing patterns, themes or common categories (Babbie, 1998). The study was therefore informed by the grounded theory methodology for the following reasons:

- The initial literature analysis indicated a gap in terms of research that connected informality with the green economy, leading to the belief that a new theory would have to emerge from the study itself. In this way, the study lent itself to the grounded theory methodology, which according to Quinlan (2011:183) “is used when the specific focus of the

research is on building theory from data” and is particularly useful “when researching phenomenon about which little is known”.

- According to Yin (2011:17), grounded theory “assumes that the natural occurrence of social behaviour within real-world contexts is best analysed by deriving ‘bottom-up’ grounded categories and concepts”. In my opinion, informality and the informal economy qualify as real-world contexts that receive little, if any, attention in ‘top-down’ policies (as will be indicated by the content analysis of South African green economy policies), therefore necessitating an alternative approach.
- In deciding on the methodology (Quinlan, 2011), I was partly guided by the need to triangulate the data as well as by the limitations of each data collection instrument. Quantitative data would allow for direct comparison amongst respondents whereas qualitative data would provide deeper understanding and knowledge of particular issues. Quantitative research, according to Quinlan (2011:482), “usually focuses on the gathering of numeric data or data in numeric form” and is considered to be deductive in nature, whereas qualitative research is mainly nonnumeric and inductive, producing data that represent feelings, thoughts, ideas and understandings.

I therefore considered it appropriate to employ a multiple or mixed methods approach, which according to Cresswell (2003) allows for a more holistic understanding of the problem, with different methods yielding different insights. Evans (2013) describes the different models of grounded theory and together with Quinlan (2011) identifies Glaser and Strauss as the developers of the theory, who later parted in their understanding of the methodology. Both Evans (2013) and Quinlan (2011) indicate Glaser’s interpretation as drawing on both quantitative and qualitative data, allowing for the combination of methods in generating new theory.

3.3 Research methods, data requirements and analysis

As indicated, the grounded theory methodology allows for the use of multiple methods in collecting data. The various instruments or tools for gathering and

analysing the data are particular to each research question, and the following section therefore describes the relevant research methods, data requirements and criteria as well as the data analysis techniques in relation to each research question.

3.3.1 Research question 1

To what extent do current South African policies and practices related to the green economy engage with the informal economy?

3.3.1.1 Content analysis

As a form of unobtrusive research, content analysis of 14 South African policies related to the green economy was conducted in order to establish the extent of informal economy coverage. According to Babbie (1998:309), content analysis “is particularly well suited to the study of communications” in order to establish what is said, to whom, why, how and with what effect. In the case of policies and plans related to the green economy in South Africa, the aim was to ascertain the level and quality of engagement with the informal economy.

The units of analysis were appropriately identified as those documents that guide national, regional and local interventions for a green economy as recognised by Montmasson-Claire (2012), the DEA and UNEP (2013) and Sustainlabour, COSATU and TIPS, (2013). The sampling method involved reducing the scope as per the limitations of the study to appropriate national policies and plans created in the period 2008 to 2013.

The sample of policies and plans related to the green economy in South Africa consisted of the following documents:

- Ten-Year Innovation Plan 2008–2018 (DST, 2008)
- Framework for South Africa’s response to the international economic crisis (RSA, 2009)
- Medium-Term Strategic Framework 2009–2014 (NPC, 2009)

- Integrated Resource Plan 2010–2030 (DoE, 2011)
- National Skills Development Strategy III 2011–2016 (DoHET, 2012)
- National Climate Change Response White Paper (RSA, 2011)
- National Waste Management Strategy (DEA, 2011a)
- New Growth Path, Green Economy Accord (EDD, 2011)
- NSSD1 2011–2014 (DEA, 2011b)
- National Development Plan 2030 (NPC, 2012)
- Draft Integrated Energy Plan (DoE, 2013)
- Bioeconomy Strategy (DST, 2013)²
- National Water Resource Strategy (DWA, 2013)
- Industrial Policy Action Plan (DTI, 2014)³

In order to extract the relevant data, each key document was evaluated on the number of times that particular terms occurred throughout each document, referred to as evaluating the manifest content (Babbie, 1998). These terms were initially coded as relating to direct references to the informal economy (see Figure 3.2); however, through the coding process, it became apparent that it was necessary to consider a wider formulation of the concept of informal economy based on its defining characteristics. Such occurrences were coded as indirect references to the informal economy (see Figure 3.3). The resulting data were then coded and analysed using ATLAS.ti.⁴ For a complete description of each term with accompanying examples, see the Codebook for National Policies and Plans in Appendix B.

² The document was included in the content analysis phase as it fell within the scope of the study; however, it was not included as a policy for comment within the questionnaire. This is because the questionnaire had been compiled and distributed before I came across the document and recognised its relevance.

³ The most current version of the IPAP (2014) was referred to for content analysis although the 2014 draft fell outside the scope of the study. The majority of the documents in the sample are valid for a specific period and therefore are not regularly updated within that period. The IPAP, however, is updated annually and therefore the most recent copy was used. For the purpose of the online questionnaire, however, an earlier version was referred to for comment.

⁴ ATLAS.ti is a computer assisted qualitative data analysis software package.

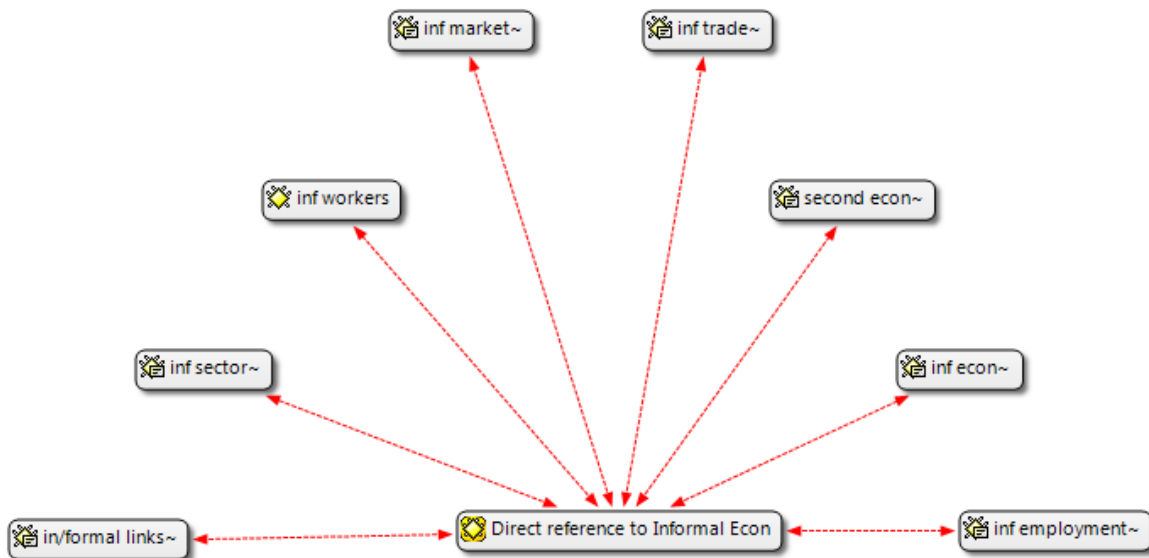


Figure 3.2: Network view of terms considered direct references to the informal economy

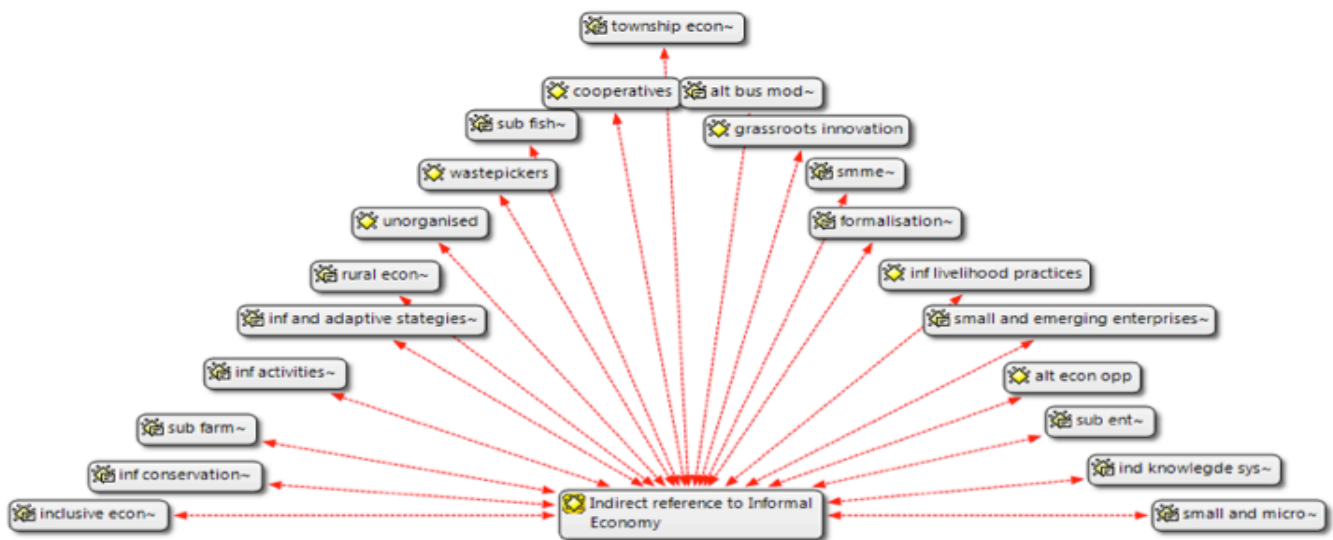


Figure 3.3: Network view of terms considered indirect references to the informal economy

3.3.1.2 Participative observation

Babbie (1998) explains that researchers may engage in observations within a continuum between nonparticipation and full participation. Within this study, observations were obtained with different levels of participation. I attended four green economy-related workshops/meetings in the capacity of research observer. In order to gain a multilevel perspective on the level of engagement between green economy policy makers/influencers/practitioners and the informal economy, the workshops/meetings that were selected ranged from the macro to the micro level, as follows:

- One national.
- One provincial.
- Two local.

During these workshops/meetings, I engaged with the organisers and attendees of the programmes where possible. During question-and-answer sessions, I disclosed my status as researcher as well as my study focus and asked questions related to the attendees' engagement with the informal economy. I also entered into informal discussions with several attendees in order to gauge their attitudes towards and perspectives on the role of the informal economy as well as possible measures to increase its visibility.

In this case, the units of analysis were field notes and audio recordings garnered from the attendees of these workshops, in order to establish general perspectives on and deeper insight into the role of the informal economy in the green economy. Responses and observations were recorded either as field notes or audio recordings, which were referred to for direct quotation or paraphrasing where appropriate.

3.3.1.3 Surveys

Due to issues of proximity and scheduling, the need arose to offer the potential informants to the study the option of completing a questionnaire instead of being interviewed. An online questionnaire using SurveyMonkey.com was created to address this need, and in order to improve

the reliability of the data collection tool, it was piloted prior to activation. The pretesting of the questionnaire highlighted the need to define certain concepts and led to its refinement and improvement. The questionnaire (see Appendix A) was distributed as an active link via email to candidates who had been identified as possibly adding value to the study. The participants ranged from academics to NGO practitioners and national-, provincial- and municipal-level government officials. Table 3.1 indicates the number of invitees and their participation and response rates.

Table 3.1: Online questionnaire participation and response rates

| | Contacted to complete online survey | Did not respond | Survey invitees responded | Interview invitees responded* | Total responses | Participation rate | Invalid responses | Valid response rate |
|-----------------|-------------------------------------|-----------------|---------------------------|-------------------------------|-----------------|--------------------|-------------------|---------------------|
| Invitees | 44 | 26 | 18 | 3 | 21 | 45% | 8 | 28% |

*Note: Three of the candidates approached for interview instead opted to complete the online survey. They were added as online survey participants.

The valid responses were received from representatives from the following groups:

- Two from local government.
- Three from provincial government.
- Three from national government.
- Two from international organisations.
- One from a community organisation.
- Two green economy facilitators.

The questionnaire was designed to extract data relevant to each of the three research questions and therefore consisted of multiple question types. A number of questions lent themselves to quantitative data analysis through descriptive statistics, such as frequency tables and bar graphs, whilst the open-ended questions were considered to constitute qualitative data requiring computer-assisted qualitative data analysis using ATLAS.ti and were presented either as matrices or, where appropriate, as direct quotations.

Respondents were also asked to rate the level of engagement between a list of policies and plans related to the green economy and the informal economy on a scale including Very High, High, Moderate, Low and Nonexistent. Participants were asked to only rate those policies that they were familiar with and were given the option of choosing Not Applicable in order to indicate the policies that they were unfamiliar with. The valid responses per policy were presented as a frequency table. The valid response count was calculated by deducting the number of Not Applicable responses from the response count per policy.

With regard to ascertaining the level of engagement between practices related to the green economy and practices related to the informal economy, participants were asked a series of questions to establish their position as green economy practitioners as well as their perspective on the level and quality of engagement between their organisation and the informal economy. The questionnaire included both open-ended and closed-ended questions, and the results were presented by frequency table and by paraphrased and direct quotations where necessary.

3.3.2 Research question 2

What green activities are taking place within the informal economy that contribute to sustainable livelihoods?

The purpose of extracting a typology of informal green jobs was firstly to raise awareness and expand current notions and perspectives regarding what constitutes a green economy and who or what is involved in such a transition. Secondly, the aim was to gauge the range of possible connections of the green economy with the informal economy.

It was not the intent of the content analysis of national policies and plans related to the green economy to identify green activities taking place in the informal economy; however, a number of potential informal green jobs emerged from the text. Other data collection tools utilised to extract this

information included the online questionnaire, semistructured interviews and direct observation of green activities within two informal settlements, referred to as Site A in Stellenbosch and Site B in Grabouw. I chose to observe these two sites due to the convenience of their proximity and the existence of established relationships with these communities.

3.3.2.1 Content analysis

From coding the 14 national policies and plans related to the green economy, a number of concepts that were recognised as pertaining to informal green jobs emerged. The coding was done using ATLAS.ti, and the relevant quotes were extracted for analysis and interpretation.

3.3.2.2 Semistructured interviews

Semistructured interviews were conducted with experts in the field of the informal economy as well as those involved in facilitating, planning or implementing green economy policies, plans, projects or activities. The interviewees represented a number of different groups:

- Three informal economy advocates and/or practitioners.
- Four researchers who had engaged in research pertaining to green activities and/or informal settlements.
- One green economy practitioner also working with the informal economy.
- One member of an informal settlement where green activities or projects occurred.⁵

Initially, interviewees were identified through networking opportunities at the green economy workshops, and subsequent candidates were identified from mailing lists obtained from the organisers of some of the events. Those candidates who agreed to being interviewed were also asked to identify

⁵ Another informal settlement resident was also approached at the second observation site; however, the interaction was much more informal and therefore it was not included as a semistructured interview.

further individuals or organisations that might add value to the study (see Table 3.2). The sampling method therefore involved nonprobability sampling, utilising purposive or judgemental sampling in combination with snowball sampling.

Table 3.2: Semistructured interview participation and response rates

| | Contacted | Did not respond | Interviewed | Completed questionnaire instead of interview* | Participation rate |
|-----------------|-----------|-----------------|-------------|---|--------------------|
| Invitees | 22 | 10 | 9 | 3 | 47% |

*Note: These are the participants who preferred to complete the questionnaire instead of being interviewed. They were added to participants in Table 3.1.

A list of pertinent open-ended and closed-ended questions was formulated and posed, yet the semistructured nature of the questions allowed for deeper probing and exploration. The responses to these questions constituted the relevant data.

The data collection process, however, was reiterative and as interviews progressed, the nature of enquiry was refined. Interviews were conducted and recorded via Skype for online interviews and via dictaphone in the case of face-to-face interviews. The audio recordings were then uploaded into ATLAS.ti for coding and to assist in data analysis. Where appropriate, responses were quoted directly. Coded responses that were similar in nature were collected into categories. From these categories, certain patterns could be discerned, leading to the emergence of a theory.

The coding process was both inductive and deductive. Inductive coding related to codes and concepts that emerged directly from the interview data, whereas deductive coding related to codes and concepts that emerged from the survey results, content analysis and observations and that were then searched for in the interview data. As the research process is not linear but reiterative, the combination of inductive and deductive coding may be appropriate.

3.3.2.3 Surveys

The online survey respondents who indicated agreement that there were green activities taking place in the informal economy were asked to identify such activities. The responses were reproduced in table format.

3.3.2.4 Direct observation

Once a conceptual framework had been constructed for recognising green activities in the informal economy, I 'tested' the framework in reality by observing such activities in real life, thereby triangulating data from the interviews and questionnaires with observations from the field. The notion of triangulation involves studying a phenomenon from more than one perspective (Quinlan, 2011), thus adding to the study's 'credibility and trustworthiness' (Yin, 2011). Two informal settlements were visited in order to record such green activities. I did not participate in these activities but rather recorded them photographically.

3.3.3 Research question 3

How can these activities be supported and developed to expand the current planning and policy environment?

3.3.3.1 Direct observation

Through participation in a number of green economy-related meetings and workshops, my interactions with attendees led to the emergence of deeper discussions and recommendations regarding possible support mechanisms. These responses and personal observations were recorded in the form of either field notes or audio recordings that gave further insight into addressing the research question.

3.3.3.2 Surveys

Utilising the online questionnaire, respondents were asked to identify how green activities could be supported at various levels of organisation and governance, for example at local/provincial/national government level, by

NGOs and by private sector organisations. In order to extrapolate possible support mechanisms and policy recommendations, it was also deemed necessary to explore the range of barriers or challenges and opportunities or benefits associated with connecting the green economy to the informal economy.

This process of extrapolation was assisted in two ways. Firstly, the process of recognising and identifying barriers and challenges was considered to be imperative to overcoming such impediments in the future. Secondly, by recognising possible opportunities and benefits, a new lens was created for considering the informal economy in the context of the green economy in South Africa.

This new lens is useful for understanding how informal green activities may be supported and developed in future. These responses were combined with data extracted from the semistructured interviews, leading to the emergence of a generalised theory on the main barriers and opportunities related to connecting the green economy to the informal economy. The results were presented as a strengths, weaknesses, opportunities and threats (SWOT) analysis matrix. Strengths and opportunities were classified according to intended and unintended consequences whereas weaknesses and threats were classified as falling either within or outside of organisational control.

3.3.3.3 Semistructured interviews

Interviews were held with a number of practitioners representing organisations that either planned for, facilitated or implemented green activities or that worked with, represented or advocated for informal economy actors and entities in order to explore how green activities could be developed and supported. As previously stated, the results were combined with data extracted from the online survey.

3.4 Summary

Chapter 3 indicated that the methodology of the study was influenced by grounded theory and that multiple methods and a variety of instruments were utilised in order to collect and analyse the data necessary for addressing the research questions. Chapter 4 presents the results of the study as pertaining to each research question.

CHAPTER 4: RESULTS⁶

In Chapter 4, the results of the data analysis are presented and organised according to each research question. As indicated in Chapter 3, multiple data collection instruments were used in order to triangulate the data. The analysis and interpretation of the data were not a linear process, as insights occurred through ‘grounding’ of the data, albeit quantitative or qualitative in nature. However, to logically organise and present the results to the readers, a more linear design was used, namely according to each research question and the individual tools employed to answer each question. It is acknowledged that the results pertaining to each tool formed a mere part of the whole, and therefore each research question was addressed by an interpretation not only of the parts (that is according to each data collection tool) but also of the whole, in terms of gaining an overall perspective and insight.

4.1 Extent of engagement with the informal economy

Gauging the extent of engagement between the green economy and the informal economy in South Africa involved four approaches. The first was to analyse the content of a set of national policies and plans that is recognised as guiding the green economy in South Africa. Secondly, the practices related to the green economy were scrutinised by observing a number of green economy workshops/meetings taking place at various levels. Thirdly, a number of green economy practitioners and policy influencers were surveyed on their perception of the quality and level of engagement a) between green economy policies and the informal economy and b) of their own organisations with the informal economy. Finally, interviews with participants who had experience of engaging with the informal economy were included to allow for a deeper understanding of the level and quality of engagement.

⁶ A paper based on the findings for research questions 2 and 3 has been submitted for review and publication in the *South African Journal of Science*. The reference is Smit S, Musango JK (2014). Exploring the connections between green economy and informal economy in South Africa. Paper submitted to South African Journal of Science 4 December 2014 [Manuscript Number, SAJS-2014-0435, Under Review].

4.1.1 Policies and plans related to the green economy

Policies and plans related to the green economy 'set the tone', so to speak, for understanding the extent of engagement between the green economy and the informal economy. Table 4.1 represents the results from the content analysis. The categories 'Direct references' and 'Indirect references' were considered to be indicative of the level and quality of engagement between a particular policy or plan and the informal economy.

Table 4.1: Ranking and frequency of direct and indirect references to the informal economy

| Policy document or plan | Direct references | Indirect references | Totals | Overall reference% | Placement |
|--|-------------------|---------------------|------------|--------------------|-----------|
| National Development Plan (NPC, 2012) | 33 | 76 | 109 | 44% | 1 |
| Industrial Policy Action Plan (DTI, 2014) | 3 | 21 | 24 | 10% | 2 |
| Bioeconomy Strategy (DST, 2013) | 2 | 16 | 18 | 7% | 3 |
| National Water Resource Strategy (DWA, 2013) | 0 | 16 | 16 | 7% | 4 |
| Medium-Term Strategic Framework (NPC, 2009) | 2 | 12 | 14 | 6% | 5 |
| National Growth Path, Green Economy Accord (EDD, 2011) | 1 | 12 | 13 | 5% | 6 |
| National Waste Management Strategy (DEA, 2011a) | 0 | 11 | 11 | 4% | 7 |
| National Strategy for Sustainable Development and Action Plan (DEA, 2011b) | 0 | 11 | 11 | 4% | 8 |
| National Climate Change Response (RSA, 2011) | 1 | 8 | 9 | 4% | 9 |
| National Skills Development Strategy (DoHET, 2012) | 0 | 9 | 9 | 4% | 10 |
| Ten-Year Innovation Plan (DST, 2008) | 0 | 5 | 5 | 2% | 11 |
| Framework for South Africa's Response to the Economic Crisis (RSA, 2009) | 1 | 2 | 3 | 1% | 12 |
| Draft Integrated Energy Plan (DoE, 2013) | 1 | 2 | 3 | 1% | 13 |
| Integrated Resource Plan (DoE, 2011) | 0 | 0 | 0 | 0% | 14 |
| TOTALS: | 44 | 201 | 245 | 100% | |

Based on the combined direct and indirect references to the informal economy, the policies and plans were ranked in terms of their comparative level of engagement. The results indicate the NDP (NPC, 2012) as having the most overall references and the Integrated Resource Plan (DoE, 2011) as having the least number of references to the informal economy.

Table 4.1 further illustrates that there are significantly fewer direct than indirect references to the informal economy. This may be indicative of a lack of conceptual or definitional understanding of what the informal economy is. Alternatively, it may signal that the informal economy is not recognised as having value within the green economy. For example, the Green Economy Accord (EDD, 2011), ranked sixth, made only one direct reference to the informal economy, even though the EDD has a mandate in terms of developing the 'second economy'.

Assuming that direct references are preferable to indirect references in terms of recognising and engaging with the informal economy, several policies were found to be problematic, in particular the NSSD1 (DEA, 2011b), which ranked eighth yet aims to build sustainable communities and work towards a green economy.⁷ The Ten-Year Innovation Plan (DST, 2008) was ranked eleventh and made several indirect references, yet all of the references pertained to indigenous knowledge systems (IKS) only, and therefore this plan does not explore other possibilities within the informal economy.

There also seems to be an overall disconnect between policies and plans that drive the green economy and the informal economy. The low level of engagement is evidenced by the lack of overall reference to the informal economy (that is either direct or indirect). In contrast to the majority of the policies and plans, however, the NDP (NPC, 2012) ranked first and stands out

⁷ It is worth noting that the NSSD1 makes a number of references to sustainable livelihoods and to informal settlements, which may possibly be interpreted as connecting with the informal economy; however, as the relationship is not made explicit, the terms were not included as pertaining to either direct or indirect references to the informal economy.

as recognising and engaging with the informal economy. The quality of its engagement is also evidenced by its identification of the challenges and opportunities related to the informal economy as well as its recognition of the need for a more inclusive economy.

In order to triangulate the findings from the content analysis process, participants in the online questionnaire were asked to rate a set of policies and plans in terms of each policy's engagement with the informal economy (see Table 4.2). Respondents were asked to rate only those policies that they were familiar with. The valid response count therefore took into account the number of people who responded to each question less those who were unfamiliar with the particular policy. The results therefore pertain to the rating by respondents who were familiar with each policy.

Table 4.2: Results for rating green economy policies' engagement with the informal economy

| The following is a sample of national policies and plans related to the green economy in South Africa. How would you rate each policy or plan in terms of its level of engagement with the informal economy? Please only rate the policies and plans that you are familiar with. | | | | | | |
|--|-----------|------|----------|-----|-------------|-----------------|
| Answer options | Very high | High | Moderate | Low | Nonexistent | Valid responses |
| Framework for Environmental Fiscal Reform (NT, 2006) | 0% | 22% | 22% | 44% | 11% | 9 |
| Ten-Year Innovation and Global Research Plan (DST, 2008) | 11% | 11% | 22% | 44% | 11% | 9 |
| Framework for South Africa's response to the International Economic Crisis (RSA, 2009) | 10% | 30% | 30% | 20% | 10% | 10 |
| Medium-Term Strategic Framework 2009–2014 and 12 Outcomes (NPC, 2009) | 11% | 44% | 22% | 11% | 11% | 9 |
| Industrial Policy Action Plan (DTI, 2010; 2011; 2012) | 27% | 18% | 27% | 18% | 9% | 11 |
| New Growth Path, Green Economy Accord and Green Jobs Report (EDD, 2010) | 25% | 33% | 25% | 8% | 8% | 12 |
| Integrated Resource Plan 2010–2030 (DoE, 2011) | 9% | 27% | 18% | 36% | 9% | 11 |
| Draft Integrated Energy Plan (DoE, 2013) | 9% | 27% | 9% | 45% | 9% | 11 |
| National Water Resource Strategy (DWA, 2013) | 10% | 30% | 20% | 30% | 10% | 10 |
| National Climate Change Response (RSA, 2011) | 30% | 10% | 40% | 10% | 10% | 10 |
| National Strategy for Sustainable Development (DEA, 2011b) | 27% | 36% | 18% | 9% | 9% | 11 |
| National Skills Development Strategy III: 2011–2016 (DoHET, 2012) | 18% | 27% | 36% | 9% | 9% | 11 |
| National Development Plan (NPC, 2012) | 42% | 25% | 17% | 8% | 8% | 12 |
| Answered question | | | | | | 14 |
| Skipped question | | | | | | 7 |

From Table 4.2, the following observations are pertinent. The NDP (NPC, 2011), which most participants were familiar with (12 out of 14), was rated by the majority of respondents (8 out of 12, or 67%) as having a High (25%) to Very High (42%) level of engagement with the informal economy. This finding supports the results from the content analysis, which found the NDP to have the highest number of direct and indirect references to the informal economy as compared to the other policies in the sample. Data from the semistructured interviews, however, rate the NDP at a moderate level of engagement. Interviewee 1 (Recording 1906.1) explained that on first reading, the NDP seemed to have little engagement with the informal economy but on more detailed reading and considering more 'holistic comments', the level of engagement was more moderate. Interviewee 1 also indicated that the NDP seemed to designate responsibility for the informal economy at local government level.

A conflicting result, however, relates to the NSSD1 (DEA, 2011b), which was found in the content analysis to have a surprisingly low number of references to the informal economy, whereas the survey indicated that more than half of the respondents (7 out of 11 or 63%) rated it as having High (36%) to Very High (27%) engagement.

In terms of the Integrated Resource Plan (DoE, 2011), the content analysis indicated that there were no references to the informal economy, and although more respondents (5 out of 11 or 45%) rated it as having Low (36%) to Nonexistent (9%) engagement, there were some respondents (4 out of 11 or 36%) who considered it to have High (27%) to Very High (9%) engagement.

The Green Economy Accord of the NGP (EDD, 2010) was rated by more than half of the survey respondents (7 out of 12 or 58%) as having High (33%) to Very High (25%) engagement. Twenty-five percent of the valid responses rated it as Moderate and only 16% rated it as Low (8%) to Nonexistent (8%). In comparison, the content analysis indicated that the Accord made only 13 overall references to the informal economy, which placed it sixth in the overall

ranking of policies. This discrepancy in the comparison between the respondents' perception and the results from the content analysis may be indicative of the divide between the expectations and the reality of an inclusive green economy.

4.1.2 Practices related to the green economy

As previously stated, the policies and plans that guide the green economy set the tone for engaging the informal economy. The study, however, set out to further investigate the level of engagement between practices related to the green economy and practices related to the informal economy. In this regard, the online questionnaire, which was sent to a number of practitioners and policy influencers in the fields of the green economy and the informal economy, made a further contribution.

The questionnaire revealed that 79% (11 out of 14) of the respondents reported that the organisation that they represented had engaged with informal economy actors or entities when planning or implementing green economy activities. The level and quality of engagement varied among respondents, taking a number of different forms, including the following:

- Ongoing support to entrepreneurs and small business development through workshops, incubators and business training.
- Public participation meetings.
- Research projects aimed at business inclusivity in townships.
- Projects around green sewerage systems and climate change adaptation technologies for informal settlements.
- Technical co-operation projects to support informal workers in a number of sectors.

The survey respondents (3 out of 14) who indicated no engagement with the informal economy explained that this was due to the following:

- The nature of the work being too technical.
- Lack of awareness.

- ‘That portion of the green economy’ falling outside their mandate (Responses 1, 2 and 3: Q12 Online survey, 2014).

With regard to whether the current level of engagement between their organisation and the informal economy was sufficient, 29% of the survey respondents agreed and 71% disagreed. A number of survey respondents pointed to the need for formalisation in order to improve engagement:

“It[s] difficult to entirely engage [the informal economy] as they are not a formal structure that can be approached, the response given were not for the entire forum of waste reclaimers as we were engaging with few members. We need to formalise them so that they have their association that will represent them in government and business engagements” (Respondent 9: Q15 Online survey, 2014).

This sentiment was reiterated by Respondent 1 (Q15 Online survey, 2014) who stated,

“Government faces several challenges in dealing with informality, which make it easier, simpler, and in some cases unavoidable (due to legal, policy and procedural obligations) to work with formal structure and formal service delivery channels. There are attempts to engage with informality more productively and this should be expanded, especially as we come to increasingly understand that informality can be a healthy and thriving element of societal development.”

Other factors that could improve engagement related to improved co-ordination among government departments (Respondent 3: Q15 Online survey, 2014) and increased funding (Respondent 10: Q15 Online survey, 2014). Interviewee 2 (Recording 2306.1) also pointed to the need for aligning policy with practice, referring to South Africa’s commitment to the Decent Work Country Programme, undersigned by NEDLAC and including a focus on both green jobs and the informal economy. In practice, however, current engagements between the green economy and the informal economy are said to be problematic:

“Actually the level of engagement with the informal economy in South Africa has been pretty non-existent. And basically, the way that we see it is that the ministry that has made the most noise about the green economy has been the Economic Development Department. [However] that department has been singularly

uninterested in pursuing strategies around the informal economy. The impression that we have is that their vision [for] the green economy is fairly narrow, focused pretty much on the construction industry. [And although] they signed the Accord at NEDLAC level, which includes representation from the community constituency, there is not much content in [the] Accord that has anything to do with the informal economy” (Interviewee 2, Recording 2306.1).

The need for improved co-ordination, both vertically and horizontally, coincides with the direct observations drawn from attending a number of green economy-related workshops/meetings. At national level there was generally speaking much support for greater inclusivity within the green economy/green jobs space, including greater engagement with the informal economy. As one moved toward provincial- and local-level workshops, however, the level and quality of engagement between practices related to the green economy and practices related to the informal economy were much more varied, ranging from moderate to no engagement (Audio notes: 0904-17.04; Field notes: 1803; 0904; 1704; 0805).

For example, at a provincial workshop, the question was raised whether and how informal actors were engaged within the waste sector. The response was that stakeholder engagement meant that the meeting was open to everyone but that informal actors and operators were not necessarily invited to or informed of the meetings. A further stipulation was that “they must be interested”, indicating that the forum was not a space for political contestation. There were no identifiable informal actors or agents present at the meeting (Field notes: 0805).

Another example of the uncertainty and hesitation related to engaging informal actors stemmed from a local-level meeting. Although there was general agreement that informal actors and entities were considered to be stakeholders within the particular context and would participate in future projects, engagement had not yet occurred. Attendees had also not yet reached agreement regarding the level and extent of engagement or whom in particular to approach. The reasons cited related to the unorganised nature of

informal actors and political factions within communities that hindered the process (Field notes: 1704).

The lack of alignment or co-ordination between national government-level enthusiasm for engaging the informal economy and local government-level implementation relates to a number of issues, including conceptual and definitional uncertainty and disagreement regarding 'green economy' and 'informal economy', conflicting political agendas among different levels of government as well as the need for greater assistance to local authorities in terms of capacity and funding (Audio notes 0904; Interviewee 3, Recording 2306.2; Interviewee 2, Recording 2306.1).

According to Interviewee 3 (Recording 2306.2), the pressure placed on local government to perform and to comply was immensely stressful and time consuming, leaving local government officials unable to engage with their communities in a more meaningful way. A national workshop attendee went so far as to suggest that local government officials were so inundated with work that "it's not surprising the only deliverable at the end of the year is the report itself" (Audio note 0904). Interviewee 3 (2306.2) also pointed out that municipalities struggled to embark on green projects that ran longer than a year as they did not have the resources or the budget to do so, nor did they have the mandate to assign a budget to these projects. Interviewee 4 (Recording 2306.3) further illustrated this challenge by suggesting that "at the moment it is incredibly difficult for municipalities to do things differently, sustainably or not".

The need for mandating municipalities to be green and also to engage with the informal economy in relation to the green economy was supported by Interviewee 1 (1906.1), who stated that "the absence of a policy mandate means there is no physical mandate, so that limits capacity in terms of who can do that".

Interviewee 2 (Recording 2306.1) problematised the lack of horizontal co-ordination among national departments:

“There has to be some sort of a coordinating capacity established, where the partners have to coordinate with each other. I don’t think a national policy will help the municipalities if there’s no capacity put in place to make the departments coordinate with each other.

... Putting in place serious interdepartmental capacity is the most key issue, more key than anything else. Because there are departments who have done some [good] work and just putting that together may not be a bad start.”

Interviewee 1 (Recording 1906.1) also described the lack of vertical coordination in terms of policies produced at national level that enter provincial structures and are then distributed as projects that are ‘helicoptered in’ to the city level. This then leads “to a disconnect around what province thinks versus the realities at the ward level” and results in project failures. Interviewee 1 (Recording 1906.1) further elaborated on the failures of such projects “because they are short-term projects that don’t fit into a wider city-scale strategic imperative”. A further issue pertaining to implementation relates to the scale of the informal economy and its “size in terms of policing” (Interviewee 1: Audio recording 1906.1).

In contrast to examining how online survey participants currently engaged with informal economy actors or entities, the same participants were asked to rate their responses to a number of statements in terms of gauging their perspectives on what the level and quality of engagement should be (see Table 4.3).

Table 4.3: Perspectives on engaging with the informal economy

| Please rate your response to the following statements. Informal economy actors or entities: | | | | | |
|--|----------------|-------|----------|-------------------|----------------|
| Answer options | Strongly agree | Agree | Disagree | Strongly disagree | Response count |
| 1. Should be involved at implementation or project stage | 77% | 23% | 0% | 0% | 13 |
| 2. Should be considered as part of the solution | 77% | 23% | 0% | 0% | 13 |
| 3. Have an important role in the green economy | 77% | 23% | 0% | 0% | 13 |
| 4. Are part of the problem | 15% | 38% | 38% | 8% | 13 |
| 5. Are unorganised and difficult to engage with | 23% | 38% | 31% | 8% | 13 |
| 6. Have no role to play in the green economy | 0% | 0% | 38% | 62% | 13 |
| 7. Should be represented at committee level | 31% | 38% | 31% | 0% | 13 |
| 8. Should be considered during the planning stages | 46% | 46% | 8% | 0% | 13 |
| 9. Should be involved in co producing solutions | 54% | 38% | 8% | 0% | 13 |
| 10. Should be engaged with more frequently | 54% | 38% | 8% | 0% | 13 |
| 11. Should be engaged with less frequently | 0% | 8% | 62% | 31% | 13 |
| 12. Should be engaged with directly | 23% | 54% | 23% | 0% | 13 |
| 13. Should be engaged with indirectly through representative organisations | 15% | 62% | 15% | 8% | 13 |
| 14. Should be incorporated into the green economy | 69% | 31% | 0% | 0% | 13 |
| Answered question | | | | | 13 |
| Skipped question | | | | | 8 |

In terms of connecting the informal economy to the green economy, all respondents indicated that the informal economy should be included and had a role to play in the green economy. This is evidenced by the responses to statements 3, 6 and 14 (refer to Table 4.3).

Statements 1, 7, 8 and 9 in Table 4.3 attempted to gauge at which level (or point in the process) informal economy actors or agents should be engaged with. The results indicated that 92% of respondents agreed to varying extents that informal economy actors or entities should be considered during the planning stages of green economy interventions and should be involved in coproducing solutions. A smaller majority, 69%, agreed to varying extents that there should also be committee-level representation, although 31% disagreed with this statement. Interviewee 3 (2306.2), for example, pointed to the difficulties in engaging informal actors at boardroom level due to sociocultural differences, lack of technical knowledge or skills and perceived animosity amongst role players. In terms of involving informal actors or entities at the implementation or project stage, however, all respondents agreed that this should be the case.

The question on whether informal economy actors or entities should be engaged with directly or indirectly was addressed by statements 12 and 13 (see Table 4.3). Seventy-seven percent of the respondents agreed that engagement should occur directly, yet coincidentally 77% also indicated that engagement should occur indirectly. The results of the two statements seem contradictory at first, but as described by Interviewee 1 (Recording 1906.1), "Context matters when engaging the informal economy and it requires an immersive approach." These processes are complex, and the level and quality of engagement will therefore vary according to contextual realities.

Interviewee 1 (Recording 1906.1) problematised both direct and indirect engagement by pointing to the desire of certain, especially foreign and migrant, traders to remain 'unseen' and who would therefore avoid direct engagement, whereas indirect engagement becomes problematic due to the lack of representational organisations. Although it was recognised that there

were some representative organisations, Interviewee 1 suggested that they were few in number and did not necessarily represent the informal economy in all respects, for example the green economy. According to Interviewee 1 (Recording 1906.1), there were a number of engagements between informal actors and green NGOs that assisted in food growing and that provided markets for the food growers. However, these connections did not necessarily link back to local government as some of the green NGOs refused to engage with the city due to ideological differences. The ideologies and agendas of the representational organisations are thus a further impediment to the level and quality of engagement between the green economy and the informal economy.

In terms of the frequency of engagement, responses to statements 10 and 11 indicated that the vast majority of survey respondents (92%) thought that informal economy actors or entities needed to be engaged with more frequently, whereas (8%) thought that engagement should be less frequent.

Statements 2, 4 and 5 (refer to Table 4.3) considered overall attitudes and perspectives on the informal economy, and in general, all the respondents viewed the informal economy as part of the solution, although a small majority (53%) acknowledged that it was also part of the problem. Finally, 61% of respondents thought that the informal economy was unorganised and difficult to engage with, whilst 38% disagreed with this statement. The view that the informal economy was unorganised and difficult to engage with was also shared by attendees at green economy workshops at both national level (Audio recording: Q&a-0904) and local level (Field notes: 1704). This is indicative of the varying levels of understanding and positive and negative perceptions regarding the informal economy and therefore may require further exploration in a future study.

4.2 Green activities in the informal economy

An overwhelming majority of survey participants (15 out of 17) and all interviewees (9 out of 9) agreed that there were green activities taking place

in the informal economy. These activities were described as mainly being driven by NGOs, researchers or community organisations (Interviewees 3, 4 and 6). Although a number of projects had been initiated by different levels of government, interviewees 3, 4 and 6 indicated that the level of commitment and dedication was less than desirable.

“Despite a number of sexy, green informal settlement projects occurring, they are not yet seriously undertaken by government, nor have they been integrated into development planning and budgeting processes at a municipal level” (Interviewee 3, Recording 2306.3).

Regardless of outside intervention, Interviewee 5 (Recording 2406.1) suggested that some informal economy activities might even be ‘greener’ than their formal counterparts:

“We have argued for example that street vendors and informal retailers probably do have a smaller carbon footprint than their formal equivalent. They are sourcing goods locally, using far less electricity and resources, and far less packaging.”

However, the notion that green activities occur in the informal economy is not uncontested. From the survey, 88% (15 out of 17) of respondents agreed that there were green activities taking place in the informal economy, whereas 12% (2 out of 17) disagreed. One such contestation revolved around lack of regulation:

“If anything, informal economy activities would likely be doing more harm than benefiting the environment in any way, due to the ‘informal’ nature of the work” (Respondent 1: Q9 Online survey, 2014).

A further contestation related to the motivation of informal green workers:

“[I]n my view the majority of businesses in the informal economy are survival driven and survival goes about making money / a living / a survival in any way possible. If this is to sort waste on a city dump it is not a green activity because it never intended being green, it intended making a basic living. Thus the activity may happen but it is not happening as a planned green economy intervention” (Respondent 2: Q9 Online survey, 2014).

By the same logic, however, green activities taking place in the private sector may be questioned in terms of the profit motive and the intention to make money in any way possible. In contrast to this view, Interviewee 3 (Recording 2306.2) suggested that some informal actors showed an understanding of green activities and a willingness to participate in these. Interviewee 9 (Recording 1407.1), an informal settlement resident, demonstrated this willingness and understanding by describing the problems with “earth and air pollution” and suggesting that “we need to do something about it ourselves”.

When asked to describe green activities taking place in the informal economy, online survey respondents identified the following (See Table 4.4):

Table 4.4: Range of green activities taking place in the informal economy

| Number | Response |
|---------------|--|
| 1 | Smallholder farming incorporating sustainability/conservation measures; informal adaptations to weather variability and extreme weather events in informal settlements/other disaster risk management; informal sewerage systems; instances of sustainable harvesting of wild fauna or flora for processing or sale; and fuel-saving innovations such as cooking, lighting, heating and so forth. |
| 2 | More entrepreneurs are entering the recycling and recovery sectors; besides, many homeless and poorer communities recover recyclables from a sustenance perspective. |
| 3 | The city supports waste-to-compost activities by providing compost bins to local community members in different areas. The city also hosts continuous awareness campaigns with the informal economy to communicate waste minimisation. |
| 4 | Off-grid energy sources provide access for those communities not connected to the grid. There is also the potential for greater networks of solid waste management. |
| 5 | Activities include the following: - informal recycling - organic waste recycling/composting - use of alternative energy for heating, lighting and cooking - rain water collection for irrigation and animal rearing and domestic (nonconsumption) use |
| 6 | Waste collection and separation for input to formal sector. Waste recycling within networks of operation. Community-based agriculture and food production activities. |
| 7 | Waste recycling and reuse. Biodiversity and ecosystem service restoration. Biotrade through the use of medicinal plants. |
| 8 | There is a wide range of economic activities that contributes to minimising and recycling waste or improving resource efficiency through use of local and sustainable construction material. Other activities taking place in the informal sector relate to protecting ecosystems while generating opportunities for income generation. For example, activities by informal waste pickers, local construction workers and informal workers in natural resource management make a valuable contribution to the green economy. |
| 9 | Waste management in the form of waste reclaimers that are not recognised by our community and whose prices are not regulated. |
| 10 | Biotrade of natural resources. |
| 11 | Waste – informal economy opportunities exist within the waste sector and include recycling and diverting waste from landfills.* |

Note: The respondent only referred to waste, yet it was inferred that activities included those mentioned.

A number of the activities indicated in Table 4.4 were also recognised by national policies and plans related to the green economy as well as by green economy and informal economy practitioners who were interviewed.

4.2.1 Bioprospecting and biotrade

The Bioeconomy Strategy (DST, 2013) makes several references to bioprospecting as connected to IKS, whilst the Ten-Year Innovation Plan (DST, 2008) illustrates the connection (see Figure 4.1).

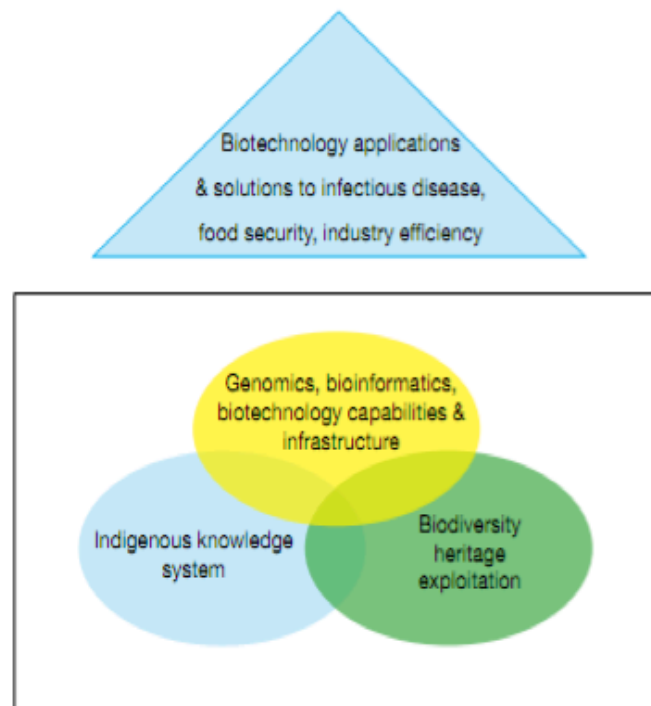


Figure 4.1: Interface between biodiversity heritage, IKS and new development in genomics

Source: Ten-Year Innovation Plan (DST, 2008:11).

The advantages of biocomposites are described in the Industrial Policy Action Plan (DTI, 2014:128) as including “a reduced environmental footprint, reduced energy consumption in production, and health and safety benefits” as well as offering “potential for new enterprise development and job creation, including in rural communities”. The results from the survey support this view as two

survey respondents referred to biotrade and bioprospecting as green activities taking place in the informal economy (Respondents 7 and 11: Q7, 2014).

4.2.2 Recycling and waste picking

Within the waste sector, certain national policies recognise recycling and waste-picking activities as contributing to the green economy and as involving the informal economy:

Effective waste management has important economic and social impacts in addition to environmental benefits. The waste management sector is an important part of the emerging green economy, and a well regulated, formalised waste sector will improve the efficiency of the overall economy.

The objectives of this goal are to stimulate job creation and broaden participation by SMEs and marginalised communities in the waste sector. These objectives include creating decent work through formalising the role of waste pickers and expanding the role of SMEs and cooperatives in waste management. New jobs will also be created by investing in recycling infrastructure to facilitate re-use, recycling and recovery (DEA, 2011a:27).

Waste collection and recycling was recognised by the majority of survey respondents (7 out of 11) and all interviewees (9 out of 9) as providing informal green jobs (Q7 Online survey, 2014), making it the most recognisable of the activities. There is also much potential for further exploration, for example through waste-to-compost activities and waste-to-fuel projects (Respondent 3: Q7 Online survey, 2014; Field notes: 0906). Interviewee 2 (Recording 2306.1) also suggested that within the value chain for the recycling of waste in South Africa, certain levels of activity were already taking place within the informal economy:

“For example at the level of collection, waste - picking from the dumps are done entirely by the informal economy, whereas at the level waste sorting there is not much development and very little waste sorting is done by informal actors. At this level it is a little bit mixed, that is between informal economy agents or entities and labour brokers that have contracts with the municipalities. On the level of recycling

businesses, we don't seem to have any informal economy activities in South Africa" (Interviewee 2, Recording 2306.1).

As indicated by observations in the field, recycling activities are taking place within informal settlements (see Photo 4.1). The recycling project in question is driven by a single member of the community. The recyclable material is collected from individual households and then stored until it can be collected by a formal recycling business. The level of recycling, however, varies with community co-operation and is therefore both sporadic and small scale in nature.



Photo 4.1: Several weeks' worth of community recycling

It is clear from the issues pertaining to the level and quality of recycling in informal settlements that there may be a need for greater incentives and support for those individuals and communities that want to expand their efforts.

A further connection could also be made between recycling activities and the craft sector (Field notes 0906). The Industrial Policy Action Plan (DTI, 2014) makes no explicit connection between the craft industry and the green economy; however, it does place emphasis on the benefits of localisation. The craft industry is described as being predominantly small scale and informal, thus linking it to the informal economy. The potential here lies in connecting it to recycling activities by using recycled materials to create marketable artefacts, for example projects such as Trashback (Field notes, 0906) and the Waste to Art Market (Respondent 6: Q5 Online survey, 2014) that connect to the informal economy, localisation and the green economy.

4.2.3 Small-scale and subsistence farming

Along with several survey respondents (Responses 1, 6 and 7: Q7), interviewees 1 and 2 (Recording 1906.1; 2306.1) described subsistence farming as green activities taking place in the informal economy. The connection between subsistence or small-scale farming and climate change is also made explicit by the National Climate Change Response Paper (RSA, 2011:23), which proposes the following response:

Educate subsistence and small-scale farmers on the potential risks of climate change, and support them to develop adaptation strategies with on-farm demonstration and experimentation. Adaptation strategies will include conservation agriculture practices including water harvesting and crop rotation, and will prioritise indigenous knowledge and local adaptive responses.

In the context of climate change, the NDP (NPC, 2012:89) emphasises the need for innovative responses whilst also referring to the role of subsistence farmers:

The Alliance for a Green Revolution in Africa, for example, is working to achieve food security for Africa by promoting sustainable agricultural growth through smallholder farmers. Recognising that smallholders – mostly women – produce most of Africa's food today with minimal resources and little government support, the alliance supports smallholders with good seeds and

better soils, as well as access to markets, storage, transport and finance, while seeking to improve agricultural policies.

As noted by the final point above, there is a disconnect between agricultural policies and the informal economy. Interviewee 1 (Recording 1906.1) described the food system in South Africa as being “managed and driven in a very entrepreneurial way, [and] the State is very absent from any of those structures”. The implication is that there are “very few policies structurally that seek to enable the informal economy”. The lack of support and enabling conditions for informal farmers is also evidenced by Interviewee 2 (Recording 2306.1) who described the plight of ‘market gardeners’ and ‘urban agriculturalists’ in a particular area who produced food on a small scale that they would then sell to a particular local market. The practice apparently stretched back for quite some time but was threatened in 2010 by the ‘anticompetitive’ behaviour of the local municipality:

“There was a very nasty little deal that the municipality had imposed on them [the local market], that if they don’t buy their stuff [solely] from the market owned by the municipality – where they get their stuff from all over the country – they would have to pay a surcharge” (Interviewee 2, Recording 2306.1).

Interviewee 2 (Recording 2306.1) suggested that situations such as these had an impact on food security and therefore had wider repercussions. In order to address the disconnect from the informal economy and to promote wider food security, Interviewee 1 (Recording 1906.1) proposed that the city formally adopt a food strategy that engaged with the food system across all of its complexity and that it adapt and adopt a city-level mandate from the bottom up. This may involve alternative processes whereby citizens come together to assert a different kind of agency in terms of city governance. A third component revolved around the criminalisation of certain activities that is not necessarily acted upon or enforced because it is recognised that action could have negative effects on the wider and often impoverished communities that these activities serve, such as the case highlighted by Interviewee 2 above. As indicated by Interviewee 1 (Recording 1906.1), there are, however,

numerous repercussions and complications associated with this final point that should also be acknowledged.

Small-scale and subsistence farming activities were observed in both the informal settlements (see photos 4.2 to 4.7). The type, quantity and quality of produce varied according to plot size and aspect, season, soil quality, access to tools and individual and financial constraints. In general, all food was grown for personal consumption by the individual households and the surplus was then either sold or donated to community members.

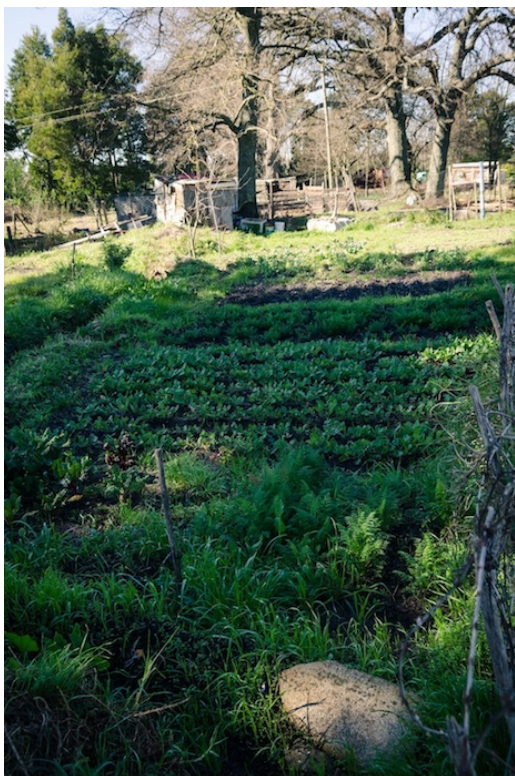


Photos 4.2 and 4.3: Household-level food production (Site A)



Photos 4.4 and 4.5: Marginally larger scale food production (Site B)

Photographer: Shanelle de Villiers (August 2014)



Photos 4.6 and 4.7: Community-level food production (Site B)

Photographer: Shanelle de Villiers (August 2014)

4.2.4 Green infrastructure, technology and construction

One way of connecting the green economy to the informal economy is through the introduction of green infrastructure and technologies. The use of renewable energy, rainwater harvesters, biodigesters, construction through ecodesign, and biomimicry for solid and waste water treatment were recognised as projects taking place in a number of informal settlements (Interviewees 4, 6, 7 and 9). As indicated by photos 4.8 to 4.13, small-scale solar installations are being promoted and trialled in both informal settlements in order to help address the lack of access to energy.



Photos 4.8 and 4.9: Microscale solar energy project – exterior view of components (Site B)



Photos 4.10 and 4.11: Microscale solar project – interior view of components (Site B)



Photo 4.12: Billboard advertising solar electricity (Site A)



Photo 4.13: External view of iShack incorporating solar energy (Site A)

Another energy-related project that incorporates the use of a biodigester was observed as taking place in both informal settlements (see photos 4.14 to 4.16). Principally, the gas emissions from human waste are captured and transformed into gas for cooking, thereby creating a more sustainable form of energy. In principle, this project may provide several social, economic and environmental benefits, but community buy-in has been problematic. As Photos 4.14 and 4.15 illustrate, there were certain benefits to upgrading the community toilets and although community members were excited by and involved in the upgrading process, one year later, only one toilet and biodigester unit remains operative, partly due to community apathy and conflict (Field notes, 140816.1).



Photos 4.14 and 4.15: Community facilities before and after installation of biodigester (Site B)



Photo 4.16: External view of biodigesting unit (Site B)

The difficulties associated with green projects in informal settlements reiterate the need for greater and better quality engagement with informal actors and entities. Nonetheless, if handled well, such projects may produce several social and economic gains in addition to environmental benefits. A number of interviewees indicated that green projects had the potential to create informal green jobs and also to assist municipalities with their infrastructure and resource constraints (Interviewees 4, 6 and 7). “Decentralised infrastructure is about a completely different model of management and ownership” (Interviewee 7, Recording 2506.2), which contains a variety of opportunities in relation to ‘upcycling’, creating economic opportunities and assets that the poor can capitalise on and positively impacting people’s living conditions (Interviewees 4, 6 and 7).

It was believed that there was much scope for the informal economy in the green economy “due to the number of sectors of work that could be included beyond just the construction industry” (Interviewee 2, Recording 2306.1) and in terms of “unlocking new value streams” (Interviewee 4, Recording 2306.3). The job-creating potential of green infrastructure may therefore be a topic for future study, as well as a descriptive study of the number of informal worker groups in the green economy, their makeup and the social, environmental and

economic impact that these technologies have for those working and living in informal conditions.

4.3 Mechanisms to improve the current planning and policy environment

In order to extract the ways in which the current planning and policy environment could improve, it was deemed necessary to first explore both the challenges and the opportunities associated with connecting the green economy to the informal economy. Combining the results from the online survey and the semistructured interviews, the following SWOT analysis identified the range of strengths, weaknesses, opportunities and threats pertaining to connecting the green economy to the informal economy in South Africa. The SWOT analysis considered a range of factors or conditions that might either help or hinder such connections (see Table 4.5). The strengths and weaknesses relate to conditions within government or organisational control, whereas the opportunities and threats relate to factors outside or external to direct control.

Table 4.5: SWOT analysis of connecting the green economy to the informal economy

| Strengths (benefits) | Weaknesses (barriers) |
|--|---|
| <ul style="list-style-type: none"> • Environmental benefits <ul style="list-style-type: none"> - reduction in waste - improved ecosystem services - resource-use efficiency - reduced carbon emissions • Socioeconomic benefits <ul style="list-style-type: none"> - decent work - poverty eradication • Job creation • Localisation • Food security • Development goals <ul style="list-style-type: none"> - improved health and wellbeing - access to basic services - reduced inequality - increased skills and level of education • Economic benefits <ul style="list-style-type: none"> - new value streams - inclusive growth - reduced welfare payments | <ul style="list-style-type: none"> • Horizontal and vertical co-ordination in terms of both policies and practices • Shortage of funding and difficulties in accessing funds • Capacity or ability (work force and time) to engage • Power relations <ul style="list-style-type: none"> - representational issues - democratic processes - structural issues - marginalisation - crony-ism - corruption • Bureaucracy <ul style="list-style-type: none"> - lack of flexibility or adaptability - over-/underemphasis on regulation • Skills shortages in terms of intellectual ability to engage • Competition for resources • Lack of mandate or vision to engage • Conceptual and definitional uncertainty <ul style="list-style-type: none"> - regarding the informal economy and how to 'manage' it - regarding the green economy and how to 'achieve' it • Models for successful engagement or modes for bridging informal and formal |
| Opportunities | Threats (challenges) |
| <ul style="list-style-type: none"> • Alternative economic opportunities and/or systems <ul style="list-style-type: none"> - social economy - barter system - circular economy/closed loops • Inclusivity • Human dignity and empowerment • Sustainable livelihoods • Bridging the human-nature divide | <ul style="list-style-type: none"> • Interpersonal collaboration and willingness to engage • Politics <ul style="list-style-type: none"> - interpersonal - intergroup - intragroup • Personality, ego and attitude <ul style="list-style-type: none"> - autocratic - self-congratulatory - individualistic • Cultural differences |

4.3.1 Barriers to and challenges in connecting the green economy to the informal economy

The barriers and challenges may be categorised in multiple ways, for example by process (internal/external), level (individual to group and micro to macro), time (history to present), space (physical and metaphorical) and power relationship (voice, agency). The list should not be seen as definitive; it is not. It is merely a categorisation of a number of recurring issues that are recognised as being interconnected, driving and being driven by each other, and that point to the complexity of the phenomenon. Future research related to describing, understanding or overcoming these challenges in more detail may be required.

However, from Table 4.5 it may be surmised that there are two types of condition that negatively affect connections between the green economy and the informal economy. These connections may be considered as either related to organisational processes, structures and procedures, which fall within the purview of an organisation, or to individual and cultural differences, which fall outside of organisational control.

4.3.2 Opportunities for and benefits of connecting the green economy to the informal economy

Table 4.5 also indicates that there are a number of benefits and opportunities associated with connecting the green economy to the informal economy. The benefits associated with connecting the green economy to the informal economy may be considered as intentional objectives, whereas the opportunities relate to indirect or unintended consequences.

Many of these benefits and opportunities are interconnected and cut across the three pillars of sustainable development, namely the social, economic and environmental spheres. These benefits and opportunities align with international (UNEP, 2011) and national definitions of the green economy and, it may be argued, echo the ideals of an inclusive green economy. Connecting the green economy to the informal economy in South Africa was

recognised by participants in the study as contributing to an inclusive green economy and therefore warrants the call for greater engagement between the informal economy and the green economy in the context of sustainable development and poverty eradication.

4.3.3 Support for connecting the green economy and the informal economy at various levels

Beyond identifying positive and negative factors associated with connecting the green economy to the informal economy, survey respondents and interviewees were asked to identify how informal green activities taking place in the informal economy could be supported. The following section describes these support mechanisms according to different levels of organisation.

4.3.3.1 Local-government or city level

A number of challenges are recognised at municipal level that impede a supportive or enabling environment for engaging the informal economy. These challenges include procedural and bureaucratic processes, lack of vision or leadership, lack of long-term commitment, lack of transparency, various forms of internal and external politics, competition for resources, lack of capacity and/or capability, pressure to conform and comply, and individual and interpersonal issues (Interviewees 1 to 9).

For a number of participants (see Table 4.6), recognition of and engagement with the informal economy were key support mechanisms, particularly in terms of inclusivity:

“In the best-case scenario you have a city council that is genuinely connected to inclusive planning for the informal economy and that has a ripple effect in terms of how informal workers are organised” (Interviewee 5, Recording 2406.1).

Table 4.6: Local-level support mechanisms

| | |
|-----------------|---|
| R1,6: | Provide infrastructure to facilitate informal green activity |
| R1: | Build relationship with civil society groups |
| R2,3,7,9: | Engagement and co-ordination – building connections or partnerships among the private sector, industry, municipal departments and informal actors |
| R4,12: | Recognise role and value of informal sector workers in green services and promote their involvement |
| R10: | Facilitate, recognise and support co-operatives |
| R8,9,10, 12: | Facilitate formalisation and organisation |
| R7: | Funding of projects |

The notion of organisation was a recurring theme underlying the process of engagement. For some respondents, the lack of organisation in the informal economy was a major challenge:

“[The NGO] said to us, the residents themselves are not organised enough to receive external assistance. And before they can organise themselves, nobody can help them” (Interviewee 4, Recording 2306.3).

Several interviewees (1, 2 and 5), however, indicated that the informal economy in general was not unorganised as there might be a number of organisational structures at any given time, for example based on gender, seniority, tribal or political affiliation, and so forth. At the same time, however, it was recognised that not all forms of organisation were conducive to wider engagement. For example, Interviewee 7 (Recording 2506.2) stated that “there needs to be an existing non-partisan social network that is able to receive the project” if meaningful engagement was to occur, whereas Interviewee 9 (Recording 1407.1), an informal settlement resident, problematised the lack of ‘communal structures’ and leadership ‘which is not political-minded’.

It would seem that the level and type of organisation are important factors in determining the level and quality of engagement between green economy practitioners and the informal economy. It therefore raises the questions,

Whose role is it to organise? Should it be a top-down or bottom-up initiative?
What is the role of government?

Several survey respondents (8, 9, 10 and 12) and interview candidates (1, 2, 3, 4, 5 and 7) indicated that although it was not government's responsibility to organise, it did have a role to play in facilitating and supporting the process of organisation. Supportive measures may include recognising and agreeing to deal with those organisations in the sector that wants to negotiate. Where government cannot identify such organisations, it should work with or through NGOs operating in the sector. Alternatively, government should facilitate the development of 'non-partisan', 'independent' or 'democratically constituted representative' organisations by focusing on 'social capacitation' (Interviewees 1, 2, 5 and 7). Such processes would require all levels of government to build on and invest in the institutions that enhance the capacity of the community to engage in a meaningful way (Interviewees 1, 2, 5 and 7). Several interviewees (5, 7 and 9) also referred to the need for physical and metaphorical spaces conducive to communal organisation and contestation.

Organisational and procedural challenges aside, personal perceptions and attitudes may also play an important role in the quality and level of engagement between municipalities and informal actors. Interviewee 6 (Recording 2506.1) pointed out that "it requires a specific mind-set or attitude to make something work in an informal settlement", a mind-set that several interviewees (2, 5, 6 and 7) believed was very much absent at local level. Support mechanisms at local level were also identified as relating to the capacity and capability of municipalities to deal with complexity, to reconcile formality with informality and to develop new models of engagement (Interviewees 1, 4, 6 and 7).

"Municipalities have no models for engaging with the informal sector really – currently the only way the municipality can engage with people is for them to be formally registered and go through a tendering process, and that needs to be rethought and new models need to be developed" (Interviewee 7, Recording 2506.2).

4.3.3.2 Provincial government

As previously described, some of the main barriers to connecting the green economy to the informal economy are related to lack of capacity, mandate and awareness at local level. Many respondents therefore indicated that provincial-level support mechanisms needed to address such challenges (see Table 4.7).

Table 54.7: Provincial-level support mechanisms

| | |
|----------|--|
| R1,2: | Skills development |
| R1,6: | Capacity building – knowledge sharing, providing expertise |
| R1,6,10: | Network forming, facilitating partnerships at higher level |
| R1,8: | Funding |
| R1: | Piloting of new innovations |
| R3: | Create mandate |
| R4,6: | Exercise influence over industries and promote supply chain contracts to procure from informal economy |
| R6: | Monitor and evaluation |
| R7,8: | Support facilitation of formalisation, engagement and dialogue with informal workers |

There is also a need for provincial governments to assist in bridging the gap between national policy and local practice.

“We need more consistent messages at provincial and national level. It would go a long way to get the city councils in line” (Interviewee 5, Recording 2406.1).

Notwithstanding the challenges at local level, provincial-level recognition of and support for the informal economy are vital, particularly in relation to facilitating partnerships and networks at a national level.

4.3.3.3 National government

Some of the barriers to and challenges in connecting the green economy to the informal economy at national level relate to lack of interdepartmental co-operation, lack of co-ordination and alignment of policies and in some cases lack of capacity or willingness to engage with the informal economy (Interviewees 1, 2 and 5). Survey responses indicated the need for improving

the regulatory environment, facilitation of partnerships at various levels (including at international level) and facilitation of co-operatives as key support mechanisms (see Table 4.8).

Table 4.8: National-level support mechanisms

| | |
|---------|--|
| R1,6: | Financial subsidies and incentives |
| R2,6,9: | Facilitate partnerships (at various levels) |
| R4,6,9: | Improve regulatory environment |
| R6: | Supply chain contracts to procure from informal economy |
| R6: | Build capacity |
| R6: | Improve reporting and evaluation |
| R7,8,9 | Facilitate co-operatives |
| R10: | Develop strategies that will support the informal industry/economy |

As previously indicated by Interviewee 5 (Recording 2406.1), there is a need for greater consistency in the interface between policies and/or practices by national government. According to Interviewee 2 (Recording 2306.1), in contrast to current ‘top-down tendencies’ there is a need for greater co-ordination and co-operation in engaging with the informal economy within the green economy sphere. Support mechanisms may include a “type of multi- or interministerial structure which then has to engage with the representatives of the informal economy” as is the case with the waste pickers sector in Brazil (Interviewee 2, Recording 2306.1).

A second supportive measure includes recognising the different informal worker groups operating in the green economy (Interviewee 5, Recording 2406.1). It is worth noting that the former support mechanism may assist in horizontal co-ordination and the latter in vertical co-ordination. For example, Interviewee 5 (Recording 2406.1) explained that identifying the different worker groups “helps to navigate [the complexity]” and that “by understanding it by worker group and then thinking it through per worker group”, sectoral or vertical co-ordination would be improved.

4.3.3.4 NGOs or civil society groups

Several interviewees (1, 2, 3, 4 and 5) recognised the role of civil society groups or NGOs in connecting the informal economy to the green economy in South Africa. A number of support mechanisms pertaining to NGOs were recognised by survey respondents (see Table 4.9).

Table 4.9: NGO-level support mechanisms

| | |
|-----------|--|
| R1: | Skills development |
| R1: | Network forming |
| R1: | Knowledge sharing |
| R2: | Support local initiatives |
| R3,7: | Society to be proactive and take responsibility for its environment |
| R4,10,11: | Mobilise around value-adding activities, circular economy and localisation and enter into environmental forums |
| R6: | Advocate for principles of sustainability |
| R7,8,11: | Formalise, organise or create co-operatives |
| R9: | Engage in dialogue, communication and reaching groups not reachable by public authorities |

Key support mechanisms were reported by survey respondents as relating to the facilitation of organisations within the informal economy and mobilisation of NGOs around green activities. In previous discussions on connecting the green economy to the informal economy, the focus fell on green economy practitioners and their role in engaging with informal actors. As indicated above, and as reiterated by Interviewee 5 (Recording 2406.1), there is also a need for NGOs that represent and advocate for the informal economy to engage with the actors and entities that promote the green economy.

Interviewee 5 (Recording 2406.1) admitted that organisations committed to advocating for informal economy actors had not fully considered the role of the informal economy in the green economy other than regarding waste pickers. Waste pickers, however, only make up 1–2% of the total informal economy globally, and therefore these organisations may need to consider and identify a wider range of worker groups operating in the green economy (Interviewee 5, Recording 2406.1).

This process will involve reconsidering the green economy space in terms of the opportunities it may hold for informal economy actors (Interviewee 5, Recording 2406.1). NGOs can further contribute to a more enabling policy and planning environment by assisting in “mapping the size of the opportunity to enable further interventions” (Response 6, Q8A), identifying different informal worker groups that operate in the green economy and participating at different levels, local to international, in discussions on the green economy (Interviewee 5, Recording 2406.1).

Although NGOs may offer much assistance in connecting the green economy to the informal economy, they may also unwittingly impede such processes due to poor representation, ideological differences, conflicting agendas and the tendency to “roll-out a blueprint formula that works in some places” but that does not take context into account (Interviewees 1, 3, 4 and 5). These challenges therefore also warrant further attention if a more enabling policy and planning environment is to ensue.

4.3.3.5 Private sector organisations

Finally, survey respondents were asked to consider the role of private sector organisations in contributing to a more inclusive green economy, and several support mechanisms were identified (see Table 4.10).

Table 4.10: Private sector-level support mechanisms

| | |
|--------------|--|
| R1,3,6,7,11: | Funding, investment |
| R1,6,10: | Skills transfer, mentoring |
| R2,3: | Infrastructure support |
| R2,7: | Start-up or incubation support |
| R6,7,8,12: | Partnership, value chain development |
| R8,9: | Supporting formalisation |
| R9,10: | Employ best practices and ensure informal suppliers adhere to decent work criteria |

The most pertinent mechanisms were related to formalising relationships through partnerships and investment in small and micro-enterprises in terms

of both financial support and skills transfer as well as the development of broader value chains that incorporate informal actors or entities. The notion of an expanded value chain was also supported by a number of interviewees. For example, Interviewee 4 (Recording, 2306.4) pointed to opportunities in the green infrastructure and technology sector, whereas Interviewee 2 (Recording 2306.1) referred to opportunities within the waste sector.

Overall, support mechanisms for connecting the green economy to the informal economy would require a paradigm shift in terms of what an inclusive green economy is, who the stakeholders and role players are as well as addressing how and to what extent they are engaged with the green economy.

4.4 Summary

Chapter 4 presented the results of the study, indicating an overall disconnect between green economy policies/practices and the informal economy. The level and quality of engagements were depicted as varying dramatically by respondents, and several challenges were recognised as contributing to poor or low levels of engagement. Despite the uncertainty about how to engage, both green economy and informal economy practitioners were able to recognise that there were green activities taking place within the informal economy that presented a number of opportunities and benefits. Several support mechanisms were identified as pertaining to different levels of organisation, indicating that there were innumerable possibilities for connecting the green economy to the informal economy in South Africa. In order for these opportunities to be fully realised, however, issues of capacity, capability and co-ordination need to be addressed along with the limiting factors of voice, visibility and validity that prevent informal actors and entities from meaningful engagement with and participation in the green economy.

Chapter 5 concludes the study by highlighting several connections between practice and theory in the effort of connecting the green economy and the

informal economy. The chapter also describes the contribution, shortcomings and recommendations for future research of the study.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

This chapter indicates how the research findings connect with the literature review and describes how the study may contribute to practice. Chapter 5 also presents a self-assessment with regard to my research study and process, highlighting a number of limitations and areas of improvement as well as considering a variety of topics for future research.

5.1 Connecting theory to practice

In Chapter 2 the notion of a green economy was reviewed on both global and national scale. It was recognised that South Africa aspired to achieve an 'inclusive green economy', which led to deeper scrutiny of the term. A number of challenges that impeded the realisation of this goal and that were related to institutional arrangements, vested interests and power relations were identified. By focusing on the inclusivity of such a green economy, it was argued that the informal economy should be recognised as a stakeholder and therefore should be involved in the transition.

The literature, however, suggested that there might be a disconnect between the green economy and the informal economy, which in a way is related to the marginalisation of informal actors in terms of 'visibility, voice, and validity' (Chen, 2012).

The objectives of the study therefore related to the following:

- To investigate the extent of engagement between green economy policies or practices in South Africa and the informal economy.
- To identify possible connections between the green economy and the informal economy by identifying green activities taking place in the informal economy.
- To ascertain what mechanisms would improve, enable or support these green economy connections at different levels of organisation.

The results of the study confirmed the existence of a number of barriers to and challenges in connecting the green economy to the informal economy, further supporting the notion of a disconnect between the two.

Content analysis of 14 policy documents and plans related to the green economy revealed inconsistencies in referring to or engaging with the informal economy. In general, very few references to the informal economy in terms of its role and value to the green economy in South Africa were found. The results from the observations, online survey and interviews indicated that the informal economy was mostly invisible, in part due to a lack of conceptual agreement and interpretation but also due to insufficient recognition or awareness of the role of the informal economy within the green economy space or how to engage with it successfully. Factors affecting the level and quality of engagement between practices related to the green economy and the informal economy were identified as concerning the level of organisation, engagement processes, capacities and capabilities. The results of the study further attributed failed or inadequate engagements to a lack of leadership, vision and long-term commitment and to an overall disregard for context and/or complexity.

The study revealed a number of possible connections between the green economy and the informal economy in the form of green activities, indicating that the informal economy might add much value to an inclusive green economy in the context of sustainable development and poverty eradication. The results also indicated a number of opportunities and benefits related to connecting the green economy to the informal economy.

In terms of improving, enabling or supporting connections between the green economy and the informal economy, the survey and interview of several green economy and informal economy practitioners and policy influencers revealed a number of support mechanisms. These mechanisms were identified as addressing several barriers and challenges at various levels of organisation, and if incorporated, these may assist in bringing about more

empowering and inclusive practices or enabling policy and planning environments.

At this stage, it is asserted that the study has achieved the objectives that it set out to attain; however, it is also recognised that the study is not perfect and could improve in several respects. The following section includes a self-assessment with regard to my research study and process before considering the limitations and areas of improvement in more detail.

5.2 Self-assessment

Although I initially set out to complete the study over two years, it quickly became apparent that the green economy landscape was fast paced and ever changing. Therefore, if I wanted the study to be relevant and useful, and in order to stay on top of emerging literature and legislature, I would have to complete the study in a shorter period of time. This realisation also prompted me to transform the literature review into an article for journal submission prior to the data collection and analysis phases. The entire research process has been a journey of discovery and development, personally, professionally and intellectually. The nonlinear and reiterative nature of the research process also allowed for new insights to emerge and affect former interpretations. Numerous sources indicate that the writing and interpreting phase of the research process never ends and that it is merely by adhering to deadlines that the research study comes to an end. With this in mind, and as a result of continued interaction with the data, the following section considers the limitations of this study and how it may be improved.

5.3 Limitations of the study

Although every effort was made to enhance the validity and reliability of the study through triangulation, it is recognised that the size and quality of the sample may be improved. Due to the renewed timeline, certain aspects may have been rushed, which affected the quality of the data. For example, there is a discrepancy between the national green economy policies scrutinised in the survey and those studied in the content analysis process. This was due to

the online questionnaire being distributed a month before content analysis occurred. Initially the plan was to do the content analysis first and then interview a number of appropriate candidates and compare their perceptions with my own results. This process, however, could not take place for two main reasons. Firstly, I had to complete an ATLAS.ti course before I could embark on the content analysis. The course, however, only ran in the first week of August, presenting a major issue in terms of adhering to a linear schedule. In order to 'make up' the time, I decided to interview candidates first.

When I started to approach candidates for interview, however, it became apparent that due to time, proximity and scheduling constraints, it was necessary to give candidates the option of completing a questionnaire. Compiling and pretesting the questionnaire was a time-consuming exercise, and as there was only one question related to the national policies, I decided to refer to the policies identified in the literature review. When I finally did have the opportunity to reconsider the sample of policies, I realised that these were not necessarily the most appropriate or recent documents. Even though there is a discrepancy, it does not make the study invalid, as the discrepancy only relates to three of the 14 documents and these were not compared directly in any way.

It is also believed that a broader spectrum of candidates could have been approached for participation. The study relied on purposive or judgmental sampling combined with snowball sampling. As I only had limited connections with informal and green economy practitioners, it affected the size and quality of the sample. For example, even though I tried to compensate for this by attending a national-level workshop in order to build broader connections, the majority of interview respondents (8 out of 9) were located in one particular province. The survey, however, did include a broader grouping, but provincial government representation remained weak, as only one provincial workshop was attended and only two provinces were represented in the survey. One interviewee was located in a third province, increasing representation, yet it still did not allow for broader assertions and comparisons among provinces. I

would therefore recommend that a future study consider a wider and more representative sample.

Finally, the study set out to gain a deeper understanding of the connections and engagements between the green economy and the informal economy. I therefore believed it necessary to consider both a 'top-down' and 'bottom-up' perspective. A relatively wide range of such engagements or opportunities was considered in order to obtain a multilevel understanding, for example as related to national policies and plans, green economy workshops or meetings at different levels and green economy and informal economy practitioners. However, only two people were interviewed, one from each informal settlement, in order to represent those living in informal settlements where green projects took place. I believe that the study could have benefited from greater participation from such a group as representing the 'recipients' of such activities or those that should be engaged with as a means of increasing inclusivity.

The same may be said with regard to the sample of informal settlements that was observed in terms of the occurrence of green activities. Only two sites within close proximity of each other were visited. In considering the importance of local context, it may be argued that a wider sample is needed in order to observe a greater variety of informal green activities. Such a sampling would need to cut across a greater geographical region with varying conditions as related to climate, local bylaws, social and economic practices and procedures, and so forth.

In the light of the aforementioned limitations and considering the broader implications of the study, the following section deals with recommendations and areas for future research.

5.4 Recommendations

The research study was designed to be exploratory in nature whilst being informed by the grounded theory methodology. Taking such a 'data-ist'

approach meant pursuing a mainly inductive approach and allowing for new insights, theories and areas for further inquiry to emerge, including the following:

- Profiling informal worker groups within the green economy
Recognising and describing a wider spectrum of informal worker groups beyond waste pickers may create opportunities for greater representation and improved levels of engagement.
- Exploring 'organisation' in the informal economy
The need for democratically constituted and independent organisation has been recognised as informing the quality of engagement. A deeper understanding of the processes and conditions required to facilitate organisation is needed, which is conducive to promoting the ideals of sustainable development.
- The informal economy as complex system
Complexity theory and systems thinking applied to the informal economy may lead to a deeper understanding of the phenomenon, thus impacting how it is perceived and engaged with.
- Exploring the social, economic and environmental implications of green projects in informal settlements
The introduction of green infrastructures and technologies in informal settlements may be enhanced by an analysis of the various intended and unintended consequences produced over time.
- Statistical profile of the informal economy in South Africa utilising ILO definition
Current definitions of the informal economy in South Africa limit and confuse appreciation and recognition of its size and its value to the broader economy. As suggested by Chen (2012), without statistical representation, the informal economy becomes invisible and thus

ignored. An important step in connecting the informal economy to the green economy therefore relates to its measurement and description.

- The role of NGOs and collectives in the green economy
NGOs routinely represent or engage with informal actors on a variety of issues; however, mobilisation around the green economy was recognised as a weakness. It would therefore be beneficial to understand how informal green actors are represented and how such representations and engagements may improve.
- The role of trade unions in representing informal actors in the green economy
Trade unions in general represent 'organised labour' but have also been effective in uniting or advocating for more dispersed groupings, such as domestic workers. The role of trade unions in relation to the informal economy and as representative bodies on a larger scale within the green economy may be a topic for inquiry.
- Case study of successful engagement between the green economy and the informal economy
This study has problematised current engagements between the green economy and the informal economy. That is not to say that successful engagements do not exist. The study of such cases may be beneficial to designing or formulating strategies for improved engagements.
- Government process and change management for an inclusive green economy
A number of barriers that impede connections between the green economy and the informal economy are recognised. Many of these barriers are argued to stem from the capacity and capability of different levels of government to engage in a meaningful way. In order to address such challenges, current systems would need to be reviewed, policies would need to be aligned and greater clarity would need to be

gained as to what an inclusive green economy for South Africa means and how it is pursued.

- Sectoral analysis of opportunities for the informal economy
Another approach to connecting the informal economy to the green economy involves each economic sector creating a research focus for possible connections and opportunities. This approach may assist with vertical integration and allow for more contextually relevant interventions.
- Value chain analysis of green economy opportunities at the bottom of the pyramid
Further studies may consider either the sustainability or ecological footprint of informal economic activities or describe the implications of and opportunities for extending current value chains in the green economy to include the informal economy.

Although the list of possible future research topics may be numerous, the implications of the study are relatively clear, namely that for South Africa to achieve an inclusive green economy in the context of sustainable development and poverty eradication, it would have to engage with the actors and entities operating in the informal economy. To do so, green economy practitioners and policy advisors would need to apply a new lens for considering the informal economy and its contribution to the green economy. Furthermore, a more open and enabling policy environment may greatly assist not only in recognising current opportunities but also in leading to an alternative economic model that may be more conducive to socially equitable and environmentally sustainable development.

Bibliography

- Acey, C.S. & Culhane, T.H. 2013. Green jobs, livelihoods and the post-carbon economy in African cities. *Local Environment: The International Journal of Justice and Sustainability*, 18(9):1046–1065.
- Alkon, A.H. 2012. *Black, white and green: Farmers markets, race and the green economy*. Georgia: University of Georgia Press.
- Allen, C. 2012a. *A guidebook to the green economy. Issue 2: Exploring green economy principles*. Document prepared for the Division for Sustainable Development, UNDESA, November [Online]. Available: <http://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=743&menu=35> [2014, January 7].
- Allen, C. 2012b. *A guidebook to the green economy. Issue 3: Exploring green economy policies and international experience with national strategies*. Document prepared for the Division for Sustainable Development, UNDESA, November [Online]. Available: <http://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=738&menu=35> [2014, January 7].
- Allen, C. & Clouth, S. 2012. *A guidebook to the green economy. Issue 1: Green economy, green growth, and low-carbon development – history, definitions and a guide to recent publications*. Document prepared for the Division for Sustainable Development, UNDESA, August [Online]. Available: http://www.uncsd2012.org/content/documents/528Green%20Economy%20Guidebook_100912_FINAL.pdf [2014, January 7].
- Allen, C. & Jussila, R. 2013. *A guidebook to the green economy. Issue 4: A guide to international green economy initiatives*. Document prepared for the Division for Sustainable Development, UNDESA, June [Online]. Available: <http://sustainabledevelopment.un.org/content/documents/916geguidebook4.pdf> [2014, January 8].
- AtKisson, A. 2012. *Life beyond growth: Alternatives and complements to GDP measured growth as a framing concept for social progress*. Annual survey report of the Institute for Studies in Happiness, Economy, and Society (ISHES). ISIS Academy [Online]. Available: <http://www.isisacademy.com/2012/02/introducing-life-beyond-growth---free-report-download/> [2014, January 10].

- AtKisson, A. 2013. *Green economy 2013: A strategic briefing on the state of play in the global transition*. International briefing report presented to WWF Sweden [Online]. Available: <http://atkisson.com/greeneconomy.php> [2014, January 2013].
- Babbie, E. 1998. *The practice of social research*. 8th edition. Belmont, CA: Wadsworth Publishing Company.
- Babbie, E. & Mouton, J. 2001. *The practice of social research: South African edition*. Cape Town, South Africa: Oxford University Press.
- Baksi, S. & Bose, P. 2010. *Environmental regulation in the presence of an informal sector*. Department Working Papers 2010-03, the University of Winnipeg, Department of Economics [Online]. Available: <http://economics.uwinnipeg.ca/RePEc/winwop/2010-03.pdf> [2014, March 4].
- Barbier, E.B. 2010. *Green new deals, ecological scarcity and the lessons of history* [Online]. Available: <http://triplecrisis.com/green-new-deals/> [2013, January 6].
- Barbier, E.B. & Markandya, A. 2013. *A new blueprint for a green economy*. London: Earthscan, Routledge.
- Bartelmus, P. 2013. The future we want: Green growth or sustainable development? *Environmental Development*, 7:165–170.
- Bass, S. 2013. *Scoping a green economy: A brief guide to dialogues and diagnostics for developing countries*. London: International Institute for Environment and Development.
- Benson, E. & Greenfield, O. 2012. *Post-Rio to post-2015 think piece: Surveying the 'green economy' and 'green growth' landscapes* [Online]. Available: <http://www.unep.org/civil-society/Portals/24105/documents/NY%20consultation/GE%20thinkpiece.pdf> [2013, September 5].
- Biswas, A.K., Farzanegan, M.R. & Thum, M. 2012. Pollution, shadow economy and corruption: Theory and evidence. *Ecological Economics*, 75:114–125.
- Blaxter, L., Hughes, C. & Tight, M. 2000. *How to research*. 4th edition. Buckingham: Open University Press.
- Blewitt, J. 2008. *Understanding sustainable development*. London: Earthscan.
- Blignaut, J., Marais, C., Rouget, M., Mander, M., Turpie, J., Klassen, T. & Preston, G. 2008. *Making markets work for people and the environment: Employment creation from payment for eco-systems services*. An initiative of the Presidency, hosted by TIPS [Online]. Available: www.tips.org.za/files/EGS_report_-_18_Nov.pdf [2014, February 8].

- Boehnert, J. 2013. *Re-imagining the commons as 'the green economy'*. Paper presented at the International Environmental Communication Association's 2013 Conference on Environmental Communication: Participation revisited: Opening and closures for deliberations on the commons [Online]. Available: https://www.academia.edu/3294072/Re-Imaging_the_Commons_as_The_Green_Economy [2013, January 10].
- Borel-Saladin, J.M. & Turrok, I.N. 2013. The impact of the green economy on jobs in South Africa. *South African Journal of Science*, 109(9/10):1-4.
- Brand, U. & Wissen, M. 2012. Global environmental politics and the imperial mode of living: Articulations of state-capital relations in the multiple crisis. *Globalizations*, 9(4):547–560.
- Brent, A. 2013. MPhil research workshop: The research process. [PowerPoint presentation]. Delivered on behalf of the School of Public Leadership, Stellenbosch, November.
- Capra, F. 2002. Life and leadership in organisations, in *The hidden connections: A science for sustainable living*. London: Harper Collins, pp. 97-128.
- Chambwera, M. 2012. *The informal economy – a threat or driver for the green economy?* [Online]. Available: <http://www.greeneconomycoalition.org/know-how/informal-economy-threat-or-driver-green-economy> [2014, February 27].
- Chambwera, M., MacGregor, J. & Baker, A. 2011. *The informal economy: A primer for development professionals on the importance of the informal economy in developing countries*. Paper produced for the International Institute for Environment and Development [Online]. Available: <http://pubs.iied.org/15515IIED.html?b=d> [2013, November 23].
- Charman, A. 2012. *Is informality being disallowed by government?* [Online]. Available: <http://www.econ3x3.org/article/informality-being-disallowed-government> [2013, November 12].
- Chen, M.A. 2007. *Rethinking the informal economy: Linkages with the formal economy and the formal regulatory environment*. UNDESA Working Paper No. 46 [Online]. Available: http://www.un.org/esa/desa/papers/2007/wp46_2007.pdf [2014, February 13].
- Chen, M.A. 2012. *The informal economy: Definitions, theories and policies*. Women in Informal Employment: Globalizing and Organizing (WIEGO), Working Paper 1. Manchester, UK..
- Cilliers, P. 1998. *Complexity and postmodernism: Understanding complex systems*. New York: Routledge.

- Cilliers, P. 2000. What can we learn from a theory of complexity? *Emergence: Complexity and Organization*, 2(1):23–33.
- Clapp, J. & Dauvergne, P. 2011. *Paths to a green world: The political economy of the global environment*. 2nd edition. Cambridge, MA: MIT Press.
- Commission on Growth and Development. 2008. *The growth report: Strategies for sustained growth and inclusive development*. The World Bank [Online]. Available: <http://go.worldbank.org/FC797ZNZP0> [2014, January 13].
- Cook, S., Smith, K. & Utting, P. 2012. *Green economy or green society? Contestation and policies for a fair transition*. UNRISD Occasional Paper Ten: Social Dimensions of Green Economy and Sustainable Development. UNRISD & Friedrich Ebert Stiftung.
- COSATU (Congress of South African Trade Unions). 2013. *Summary of critique of the National Development Plan* [Online]. Available: www.cosatu.org.za/docs/discussion/2013/analysis [2013, September 20].
- Cozendey, C.M. 2011. Green economy as a programme for sustainable development, in UNCTAD, *Road to Rio+20: For a development-led green economy, Issue 1* [Online]. Available: http://unctad.org/en/Docs/ditcted20108_en.pdf [2014, January 8].
- Cresswell, J.W. 2003. *Research design: Qualitative, quantitative and mixed methods approaches*. 2nd edition. Thousand Oaks: Sage Publications.
- Cunniah, D. 2012. Forward: Are 'green' jobs decent? *International Journal of Labour Research*, 4(2):133–134.
- Daly, H. 2011. From a failed growth economy to a steady-state economy, in UNCTAD, *Road to Rio+20: For a development-led green economy, Issue 1*. Available: http://unctad.org/en/Docs/ditcted20108_en.pdf [2014, January 8].
- Daly, H. 2013. A further critique of growth economics. *Ecological Economics*, 88:20–24.
- Dasgupta, C. 2011. Reflections on the relationship between 'green economy' and sustainable development, in UNCTAD, *Road to Rio+20: For a development-led green economy, Issue 1*. Available: http://unctad.org/en/Docs/ditcted20108_en.pdf [2014, January 8].
- Davies, A.R. 2013. Cleantech clusters: Transformational assemblages for a just, green economy or just business as usual? *Global Environmental Change*, 23:1285–1295.

- Davies, R. & Thurlow, J. 2010. Formal-informal economy linkages and unemployment in South Africa. *Southern African Journal of Economics*, 78(4):437–458.
- Davis, M. 2004. Planet of slums. *New Left Review*, 25(March-April):5–34.
- Dawa, F.O. & Kinyanjui, M.N. 2012. *Green economy and sustainable development: Which way for the informal economy?* Think piece produced as part of a series for the United Nations Research Institute for Social Development [Online]. Available: <http://www.unrisd.org/unrisd/website/newsview.nsf/%28httpNews%29/43B2464B82F227A1C1257A41002D14B2?OpenDocument> [2013, November 15].
- DBSA (Development Bank of Southern Africa), DEA (Department of Environmental Affairs), EDD (Economic Development Department) & IDC (Industrial Development Corporation). 2011. *Programmes in support of transitioning South Africa to a green economy*. Working Paper Series No. 24 produced by the Development Planning Division [Online]. Available: <http://www.dbsa.org/Research/DPD%20Working%20papers%20documents/DPD%20No24.pdf?AspxAutoDetectCookieSupport=1> [2014, January 28].
- DEA (Department of Environmental Affairs). 2010. *Green Economy Summit Report* [Online]. Available: www.sagreenecology.co.za [2014, February 10].
- DEA (Department of Environmental Affairs). 2011a. *National Waste Management Strategy* [Online]. Available: <http://www.gov.za/documents/index.php?term=&dfrom=&dto=&yr=0&subjs%5B0%5D=49&p=6> [2014, June 22].
- DEA (Department of Environmental Affairs). 2011b. *National Strategy for Sustainable Development and Action Plan (NSSD1) 2011-2014*. Pretoria: Department of Environmental Affairs.
- DEA (Department of Environmental Affairs). 2014a. *About green economy*. Available: <https://www.environment.gov.za/projectsprogrammes/greenecology/about#definition> [2014, January 21].
- DEA (Department of Environmental Affairs). 2014b. *Green fund investment strategy*. Available: <http://www.sagreenfund.org.za/SiteCollectionDocuments/The%20Green%20Fund%20%20Investment%20Strategy.pdf> [2014, February 6].
- DEA (Department of Environmental Affairs) & UNEP (United Nations Environment Programme). 2013. *Green economy modelling report for South Africa (SAGEM): Focus on the sectors of natural resource management, agriculture, transport and energy* [Online]. Available:

- https://www.environment.gov.za/sites/default/files/docs/greeneconomy_modelingreport.pdf [2013, September 19].
- DEAT (Department of Environmental Affairs and Tourism). 2008. *A National Framework for Sustainable Development in South Africa*. Pretoria: Department of Environmental Affairs and Tourism.
- Death, C. 2014. The green economy in South Africa: Global discourses and local politics. *Politikon: South African Journal of Political Studies*, 41(1):1–22.
- Dercon, S. 2012. *Is green growth good for the poor? Policy Research Working Paper 6231*. Paper produced by the World Bank Environment and Energy Team, Development Research Group and the Office of the Chief Economist, Sustainable Development Network, October [Online]. Available: <http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-6231> [2014, January 12].
- Devall, B. 2001. The deep long-range ecology movement: 1969-2000 – a review. *Ethics & the Environment*, 6(1):18-41.
- Devey, R., Skinner, C. & Valodia, I. 2003. *Informal economy employment data in South Africa: A critical analysis*. Cape Town: Development Policy Research Unit.
- Devey, R., Skinner, C. & Valodia, I. 2005. The state of the informal economy, in S. Buhlungu, J. Daniel, R. Southall & J. Lutchman (eds.). *State of the nation: South Africa 2005-2006*. Cape Town: Human Sciences Research Council Press.
- DoE (Department of Energy). 2011. *Integrated Resource Plan: 2010-2030* [Online]. Available: http://www.doe-irp.co.za/content/IRP2010_promulgated.pdf [2014, June 22].
- DoE (Department of Energy). 2013. *Draft 2012 Integrated Energy Planning Report* [Online]. Available: http://www.energy.gov.za/files/IEP/IEP_Publications/Draft-2012-Integrated-Energy-Plan.pdf [2014, March 10].
- DoHET (Department of Higher Education and Training). 2012. *National Skills Development Strategy III: 2011-2016* [Online]. Available: <http://www.dhet.gov.za/LinkClick.aspx?fileticket=AOv8W%2Bm3xHI%3D&tabid=1131> [2014, March 10].
- DST (Department of Science and Technology). 2008. *The Ten-Year Plan for Science and Technology* [Online]. Available: <http://www.gov.za/documents/index.php?term=&dfrom=&dto=&yr=0&subsjs%5B0%5D=70&p=3> [2014, June 22].

- DST (Department of Science and Technology). 2013. *The Bio-economy Strategy* [Online]. Available: <http://www.dst.gov.za/images/ska/Bioeconomy%20Strategy.pdf> [2014, June 22].
- DTI (Department of Trade and Industry). 2014. *Industrial Policy Action Plan 2014/15-2016/17* [Online]. Available: <http://www.gov.za/documents/index.php?term=&dfrom=&dto=&yr=0&subjs%5B%5D=112> [2014, June 22].
- Duminy, J. 2011. *Literature survey: Informality and planning*. Survey compiled for the Urban Policies Programme of the policy-research network Women in Informal Employment: Globalizing and Organizing (WIEGO). Cape Town, South Africa: African Centre for Cities, University of Cape Town.
- Du Plooy, P. 2010. *State of policy on the green economy in South Africa*. Draft background paper [Online]. Available: http://www.sustainabilityinstitute.net/newsdocs/document-downloads/cat_view/44-related-research-initiatives/43-green-economy?start=10 [2014, January 20].
- Du Toit, A. & Neves, D. 2007. *In search of South Africa's second economy: Chronic poverty, vulnerability and adverse incorporation in Mt. Frere and Khayelitsha. Programme for Land and Agrarian Studies (PLAAS) Working Paper 1*. Paper presented at the Living on the Margins Conference, Stellenbosch, 26-28 March [Online]. Available: <http://www.plaas.org.za/plaas-publication/wp-1> [2014, February 6].
- Du Toit, A. & Neves, D. 2012. Money and sociality in South Africa's informal economy. *Africa*, 82(1):131-149.
- Du Toit, A. & Neves, D. 2013. Rural livelihoods in South Africa: Complexity, vulnerability and differentiation. *Journal of Agrarian Change*, 13(1):93–115.
- DWA (Department of Water Affairs). 2013. *National Water Resource Strategy: Water for an equitable and sustainable future*. 2nd edition [Online]. Available: <http://www.dwaf.gov.za/nwrs/LinkClick.aspx?fileticket=3AVrHanrkfw%3d&tabid=91&mid=496> [2014, March 10].
- EDD (Economic Development Department). 2010. *The New Growth Path: The Framework*. Pretoria: Economic Development Department.
- EDD (Economic Development Department). 2011. *The New Growth Path: Accord 4 – Green Economy Accord* [Online]. Available: <http://www.gov.za/documents/index.php?term=&dfrom=&dto=&yr=0&subjs%5B%5D=92> [2014, June 22].

- EDD (Economic Development Department). 2013. *Programmes 2 and 3* [Online]. Available: <http://www.economic.gov.za/about-us/programmes> [2014, February 4].
- Elgin, C. & Oyvat, C. 2013. Lurking in the cities: Urbanization and the informal economy. *Structural Change and Economic Dynamics*, 27:36–47.
- Evans, G.L. 2013. A novice researcher's first walk through the maze of grounded theory: Rationalization for classical grounded theory. *Grounded Theory Review*, 1(12) [Online]. Available: <http://groundedtheoryreview.com/2013/06/22/a-novice-researchers-first-walk-through-the-maze-of-grounded-theory-rationalization-for-classical-grounded-theory/> [2013, November 20].
- Gallopín, G. 2003. *A systems approach to sustainability and sustainable development*: Project NET/00/063. Santiago, Chile: Economic Commission for Latin America.
- GEC (Green Economy Coalition). 2010. *Our vision: Towards a green economy* [Online]. Available: <http://www.greeneconomycoalition.org/content/towards-green-economy> [2014, January 23].
- GEC (Green Economy Coalition). 2012. *The big picture* [Online]. Available: <http://www.greeneconomycoalition.org/big-picture/big-picture---overview> [2014, January 23].
- GGKP (Green Growth Knowledge Platform). 2014. *What is green growth?* [Online]. Available: <http://www.greengrowthknowledge.org/about-us> [2014, January 17].
- Godfrey, P.C. 2011. Toward a theory of the informal economy. *The Academy of Management Annals*, 5(1):231–277.
- Greenpeace, GWEC & EREC. 2012. *Energy [r]evolution: A sustainable global energy outlook* [Online]. Available: <http://www.greenpeace.org/international/en/campaigns/climate-change/energyrevolution/> [2013, September 23].
- Guha-Khasnobis, B., Kanbur, R. & Ostrom, E. 2006. Beyond formality and informality, in B. Guha-Khasnobis, R. Kanbur & E. Ostrom (eds.). *Linking the formal and informal economy: Concepts and policies*. New York: Oxford University Press, Introduction.
- Gumbo, T. & Geyer, M. 2011. 'Picking up the pieces': Reconstructing the informal economic sector in Bulawayo, Zimbabwe. *Town and Regional Planning*, 2011(59):53–64.
- Gumede, V. 2008. *Poverty and 'second economy' in South Africa: An attempt to*

- clarify applicable concepts and quantify extent of relevant challenges*. Paper produced for the Development Policy Research Unit. DPRU Working Paper 08/133 [Online]. Available: www.dpru.uct.ac.za/sites/default/files/image/DPRU%20WP08-133.pdf [2014, February 5].
- Hart, K. 2006. Bureaucratic form and the informal economy, in B. Guha-Khasnobis, R. Kanbur & E. Ostrom (eds.). *Linking the formal and informal economy: Concepts and policies*. Oxford University Press: New York, pp. 21-35.
- Hart, K. 2010. Africa's urban revolution and the informal economy. *The Political Economy of Africa*, 2010:371–388.
- Heintz, J. 2012. *Informality, inclusiveness, and economic growth: An overview of key issues*. Report supported by the International Development Research Centre (IDRC). SIG Working Paper 2012/2 [Online]. Available: <http://www.idrc.ca/EN/Documents/SIG-WP2-Informality.pdf> [2012, November 20].
- Heintz, J. & Valodia, I. 2008. *Informality in Africa: A review*. Women in Informal Employment: Globalizing and Organizing (WIEGO), Working Paper 3, September [Online]. Available: <http://wiego.org/publications/informality-africa-review-0> [2013, November 7].
- Horn, A. 2011. Who's out there? A profile of informal traders in four South African city central business districts. *Town and Regional Planning*, 2011(59):1–6.
- Hosking, D. 1997. Organising, leadership and skillful process, in K. Grint (ed.). *Leadership: Classical, contemporary and critical approaches*. New York: Oxford University Press.
- ILO (International Labour Organization). 2003. *Report of the Seventeenth International Conference of Labour Statisticians, Geneva 24 November – 3 December 2003*. Geneva: ILO.
- Jackson, T. 2009. *Prosperity without growth? The transition to a sustainable economy*. United Kingdom: Sustainable Development Commission.
- Jones, G. 2013. *Waste collectors face tough conditions* [Online]. Available: <http://www.financialmail.co.za/fm/Features/2013/07/04/waste-collectors-face-tough-conditions> [2014, March 10].
- Jupesta, J., Boer, R., Parayil, G., Harayama, Y., Yarime, M., Puppim de Oliviera, J.A. & Subramanian, S.M. 2011. Managing the transition to sustainability in an emerging economy: Evaluating green growth policies in Indonesia. *Environmental Innovation and Societal Transitions*, 1(2):187–191.
- Kanbur, R. 2009. Conceptualizing informality: Regulation and enforcement. *Indian*

- Journal of Labour Economics*, February 2009:1-12.
- Korhonen, J. 2008. Reconsidering the economics logic of ecological modernization. *Environment and Planning A*, 40(6):1331–1346.
- Ligthelm, A.A. 2006. Size estimate of the informal sector in South Africa. *South African Business Review*, 10(2):32–52.
- Lorek, S. & Spangenberg, J.H. 2014. Sustainable consumption within a sustainable economy – beyond green growth and green economies. *Journal of Cleaner Production*, 63:33–44.
- Luke, T.W. 2009. An apparatus of answers? Ecologism as ideology in the 21st century. *New Political Science*, 31(4):487–498.
- Maia, J., Giordano, T., Kelder, N., Bardien, G., Bodibe, M., Du Plooy, P., Jafta, X., Jarvis, D., Kruger-Cloete, E., Kuhn, G., Lepelle, R., Makaulule, L., Mosoma, K., Neoh, S., Netshitomboni, N., Ngozo, T. & Swanepoel, J. 2011. *Green jobs: An estimate of the direct employment potential of a greening South African economy*. Johannesburg, Midrand and Pretoria: IDC, DBSA and TIPS.
- Markandya, A., Gonzalez-Eguino, M. & Escapa, M. 2013. From shadow to green: Linking environmental fiscal reforms and the informal economy. *Energy Economy*, 40:5108–5118.
- Mbeki, T. 2003. Letter from the president: Meeting the challenge of the second economy. *ANC Today*, 3(45). Available: <http://www.anc.org.za/docs/anctoday/2003/at45.htm> [2014, February 6].
- Mebratu, D. 1998. Sustainability and sustainable development: Historical and conceptual review. *Environmental Impact Assessment Review*, 18(6):493–520.
- Montmasson-Clair, G. 2012. *Green economy policy framework and employment opportunity: A South African case study*. TIPS Working Paper Series. Pretoria, South Africa: TIPS.
- Mouton, J. 2001. *How to succeed in your master's and doctoral studies: A South African guide and resource book*. Pretoria: Van Schaik Publishers.
- Murray, R. 2005. *Writing for academic journals*. Maidenhead, Berkshire, England: McGraw-Hill Education, Open University Press.
- Musango, J.K., Brent, A.C. & Bassi, A.M. 2014. Modelling the transition towards green economy in South Africa. *Technology Forecasting and Social Change*, 87:257–273.
- Musyoki, A. 2012. *The emerging policy for green economy and social development in Limpopo, South Africa*. UNRISD Occasional Paper Eight: Social Dimensions

- of Green Economy and Sustainable Development. United Nations Research Institute for Social Development and Friedrich Ebert Stiftung.
- Nhamo, G. 2013. Green economy readiness in South Africa: A focus on the national sphere of government. *International Journal of African Renaissance Studies – Multi-, Inter- and Transdisciplinarity*, 8(1):115–142.
- NPC (National Planning Commission). 2009. *Together doing more and better. Medium term strategic framework. A framework to guide government's programme in the electoral mandate period (2009-2014)*. Pretoria: The Presidency of the Republic of South Africa.
- NPC (National Planning Commission). 2012. *National Development Plan, Vision 2030: Our future – make it work* [Online]. Available: <http://www.npconline.co.za/pebble.asp?reid=25>. [2014, April 2].
- OECD (Organisation for Economic Co-operation and Development). 2011. *Towards green growth: A summary for policy makers*. Brochure prepared for the OECD Meeting of the Council at Ministerial Level, 25-26 May 2011, Paris.
- Olsen, L. 2012. What policies for a green economy that works for social progress? *International Journal of Labour Research*, 4(2):135–149.
- Pepper, D. 1998. Sustainable development and ecological modernization: A radical homocentric perspective. *Sustainable Development*, 6(1):1–7.
- Peter, C. & Swilling, M. 2011. *Greening the South African growth path: Transitioning to sustainability*. Pretoria: DBSA.
- Pieterse, E. 2008. *City futures: Confronting the crisis of urban development*. London: Zed Books.
- Pinderhughes, R. 2006. Green collar jobs: Work force opportunities in the growing green economy. *Race, Poverty and the Environment*, 13(1):62–63.
- Preiser, R. 2013. *Complexity theory and systems thinking*. School of Public Leadership (SPL), Sustainability Institute, Stellenbosch. Unpublished lecture notes taken during 18–22 February 2013.
- Quazi, T. & Dobson, R. 2012. *Inclusion of waste pickers into national and government plans*. Paper presented at the eThekweni- University Research Symposium on 10 September.
- Quinlan, C. 2011. *Business research methods*. United Kingdom: South-Western CENGAGE Learning.
- Raghupathy, L. & Chaturvedi, A. 2013. Secondary resources and recycling in developing economies. *Science of the Total Environment*, 461–462:830–834.

- Resnick, D., Tarp, F. & Thurlow, J. 2012. The political economy of green growth: Cases from Southern Africa. *Public Administration and Development*, 32:215–228.
- Rogers, P.P., Jalal, K.F. & Boyd, J. 2005. *An introduction to sustainable development*. Canada: The Continuing Education Division, Harvard University and Glen Education Foundation.
- RSA (Republic of South Africa). 1996. *Constitution of the Republic of South Africa*. Pretoria: Statutes of the Republic of South Africa – Constitutional Law.
- RSA (Republic of South Africa). 2009. *Framework for South Africa's response to the international economic crisis* [Online]. Available: <http://www.polity.org.za/article/framework-for-south-africas-response-to-the-international-economic-crisis-february-2009-2009-02-23> [2014, January 27].
- RSA (Republic of South Africa). 2011. *National Climate Change Response White Paper* [Online]. Available: <http://www.gov.za/documents/detail.php?cid=315009> [2014, June 22].
- Rudin, J. 2013. *Green economy: The long suicide: The different worlds of green jobs and climate jobs*. Booklet produced for the Alternative Information Development Center (AIDC) in August [Online]. Available: <http://aidc.org.za/media-room/publications/climate-change-and-climate-jobs.html> [2014, March 10].
- Samers, M. 2005. The myopia of “diverse economies”, or a critique of the “informal economy”. *Antipode*, 37(5):875–886.
- Saunders, S. & Loots, E. 2005. Measuring the informal economy in South Africa. *South African Journal of Economic and Management Sciences*, 8(1):92–101.
- Schepelmann, P., Goossens, Y. & Makipaa, A. (eds.). 2010. *Towards sustainable development: Alternatives to GDP for measuring progress*. Study for the European Parliament on alternative progress indicators by the Wuppertal Institute for Climate, Environment and Energy, Wuppertal Special no. 42 [Online]. Available: <http://wupperinst.org/en/publications/details/wi/a/s/ad/1113> [2014, January 16].
- Skinner, C. 2008. *Street trade in Africa: A review*. Women in Informal Employment: Globalizing and Organizing (WIEGO), Working Paper 5. Manchester, UK.
- Skinner, C. 2011. *Association of African Planning Schools (AAPS) planning education toolkit: The informal economy*. Available:

- http://www.africanplanningschools.org.za/index.php?option=com_content&view=article&id=221&catid=51&Itemid=68 [2013, December, 13].
- Smith, R. 2011. Green capitalism: The god that failed. *Real-World Economics Review*, 56, March:112–144.
- Sneddon, C. Howarth, R.B. & Norgaard, R.B. 2006. Sustainable development in a post-Brundtland world. *Ecological Economics*, 57(2):253.
- Söderbaum, P. 2013. Ecological economics in relation to democracy, ideology and politics. *Ecological Economics*, 95:221–225.
- South African Government News Agency. 2012. *R800 million allocated to Green Fund* [Online]. Available: <http://www.sanews.gov.za/south-africa/r800-million-allocated-green-fund> [2014, January 28].
- Southall, R. 2010. The South African development model: Hitting against the limits. *Strategic Review for Southern Africa*, 32(2):69.
- StatsSA (Statistics South Africa). 2013. *Quarterly Labour Force Survey: Quarter 4, 2013*. Pretoria: Statistics South Africa.
- Stellenbosch University. 2012. *Departmental Ethics Screening Committee (DESC) guideline* [Online]. Available: <https://www0.sun.ac.za/international/support-and-skills-development/resources/item/new-departmental-ethics-screening-committee-guidelines> [2013, November 28].
- Sustainlabour, COSATU (Congress of South African Trade Unions) & TIPS (Trade and Industrial Policy Strategies). 2013. *Green jobs and related policy frameworks: An overview of South Africa*. Available: http://www.tips.org.za/files/green_jobs_and_relatedpolicy_frameworks_-_overview_south_africa.pdf [2014, February 8].
- Swilling, M. 2011. *Growth, resource use and decoupling: Towards a 'green new deal' for South Africa – ECSECC*. Working Paper Series No. 14. Grahamstown.
- Swilling, M. & Annecke, E. 2012. *Just transitions: Explorations of sustainability in an unfair world*. Claremont, South Africa: UCT Press.
- Swilling, M., Musango, J.K. & Wakeford, J. Forthcoming. Introduction: Deepening the green economy discourse in South Africa, in M. Swilling, J.K. Musango & J. Wakeford (eds.). *Greening the South African economy*. Cape Town: UCT Press.
- Tienhaara, K. 2013. Varieties of green capitalism: Economy and environment in the wake of the global financial crisis. *Environmental Politics*, 22:1–18.
- TIPS (Trade and Industrial Policy Strategies). 2009. *Second economy strategy: Addressing inequality and economic marginalisation* [Online]. Available: http://www.tips.org.za/files/Second_Economy_Strategy_Framework_Jan_09

- _0.pdf [2014, February 6].
- TIPS (Trade and Industrial Policy Strategies). 2014. *What is the second economy?* [Online]. Available: <http://www.tips.org.za/programme/2nd-economy-strategy-project/about> [2014, January 31].
- Torgerson, D. 2001. Rethinking politics for a green economy: A political approach to radical reform. *Social Policy and Administration*, 35(5):472–489.
- UN (United Nations). 2012. *The future we want*. Outcome document for the United Nations Conference on Sustainable Development (Rio+20) held 13-22 June 2012 in Rio de Janeiro, Brazil [Online]. Available: https://rio20.un.org/sites/rio20.un.org/files/a-conf.216l-1_english.pdf.pdf [2014, January 5].
- UNDESA (United Nations Department of Economic and Social Affairs). 2014. *Green economy in the context of sustainable development and poverty eradication* [Online]. Available: <http://sustainabledevelopment.un.org/index.php?menu=1224> [2014, January 6].
- UNEMG (United Nations Environmental Management Group). 2011. *Working towards a balanced and inclusive green economy* [Online]. Available: <http://www.unemg.org/index.php/working-towards-a-balanced-and-inclusive-green-economy-a-united-nations-system-wide-perspective> [2014, February 23].
- UNEP (United Nations Environmental Programme). 2011. *Towards a green economy: Pathways to sustainable development and poverty eradication* [Online]. Available: <http://www.unep.org/greeneconomy/GreenEconomyReport/tabid/29846/language/en-US/Default.aspx> [2014, January 7].
- UNEP (United Nations Environmental Programme), ILO (International Labour Organization), IOE (International Organisation of Employers), & ITUC (International Trade Union Confederation). 2011. *Green jobs: Towards decent work in a sustainable, low-carbon world* [Online]. Available: www.unep.org/PDF/UNEPGreenjobs_report08.pdf [2014, March 3].
- UNRISD (United Nations Research Institute for Social Development). 2012. *Social dimensions of green economy and sustainable development* [Online]. Available: <http://www.unrisd.org/greeneconomy> [2013, October 30].
- Vermeulen, S., Dossou, K., Macqueen, D., Walubengo, D. & Nangoma, E. 2008. *Springing back: Climate resilience at Africa's grassroots*. Sustainable Development Opinion, May 2008. IIED [Online]. Available:

- <http://pubs.iied.org/17038IIED.html?a=S%252520Vermeulen> [2014, February 10].
- Watson, V. 2009. 'The planned city sweeps the poor away...': Urban planning and 21st century urbanization. *Progress in Planning*, 72:151–193.
- WCED (World Commission on Environment and Development). 1987. *Our common future* [Online]. Available: <http://www.un-documents.net/wced-ocf.htm> [2014, January 20].
- WIEGO (Women in Informal Employment: Globalizing and Organizing). n.d. *Informal workers in focus: Waste collectors* [Online]. Available: <http://wiego.org/sites/wiego.org/files/resources/files/WIEGO-Waste-Collectors-in-Focus.pdf> [2014, March 10].
- Williams, C.C. 2007. *Rethinking the future of work: Directions and visions*. New York: Palgrave Macmillan.
- Williams, C.C. 2010. Rethorising participation in the underground economy. *Labour Studies Journal*, 35(2):246–267.
- Wills, G. 2009. *South Africa's informal economy: A statistical profile*. Women in Informal Employment: Globalizing and Organizing (WIEGO), Working Paper 6. Manchester, UK.
- Yin, R.K. 2011. *Qualitative research from start to finish*. New York: The Guilford Press.
- Zenghelis, D. 2011. Trade, finance and the green economy, in UNCTAD *Road to Rio+20: For a development-led green economy, Issue 1* [Online]. Available: http://unctad.org/en/Docs/ditcted20108_en.pdf [2014, January 8].

List of Appendices

Appendix A: On-line Questionnaire

| Consent to participate in research |
|---|
| <p>You are asked to participate in a research study conducted by Suzanne Smit from the School of Public Leadership at Stellenbosch University, in which your results will be contributed to the Master's thesis in Sustainable Development. You were selected as a possible participant in this study because you have the appropriate expertise and experience to contribute to the discussion on connecting the green economy with the informal economy in South Africa.</p> |
| <p>PROCEDURES</p> <p>If you volunteer to participate in this study, we would ask you to do the following things:</p> <p>a) To complete a questionnaire, being as truthful and detailed as possible in giving responses to explore your thoughts and perceptions regarding:</p> <ul style="list-style-type: none">(i) The current level of engagement between the green economy and informal economy(ii) The range of possible connections between the green economy and informal economy(iii) Barriers to and opportunities for connecting the green and informal economy <p>b) If necessary, to be interviewed for deeper discussion and comment on emerging thoughts and concepts</p> |
| <p>CONFIDENTIALITY</p> <p>Confidentiality will be maintained by means of not disclosing the names of the specific participants of the survey/interview. The responses will be coded, either numerically or alphabetically in order to safeguard confidentiality.</p> <p>In addition, the results of the data will be presented in aggregated form thus making it impossible to identify the results with any of the participants. Data that could identify participants may only be shared with the thesis supervisor, Dr. Josephine Musango, in order to promote validity, reliability and robustness of the thesis, and who is also bound to confidentiality of sources.</p> <p>The results of the study may subsequently be published, in which case the same procedures for confidentiality applies, that is participants will remain anonymous.</p> |
| <p>IDENTIFICATION OF INVESTIGATORS</p> <p>If you have any questions or concerns about the research, please feel free to contact Suzanne Smit (Masters Candidate) on 07931 88251 (12549339@sun.ac.za), Dr. Josephine Musango (Supervisor) on Josephine.Musango@spl.sun.ac.za.</p> |
| <p>RIGHTS OF RESEARCH SUBJECTS</p> <p>You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.</p> |
| <p>1. I hereby consent voluntarily to participate in this study.</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> |

2. Contact Information.

Please note that this information will remain confidential.

Name:

Company:

City/Town:

State/Province:

Email Address:

Phone Number:

3. Please indicate the type of organisation you are affiliated with.

NGO

Local Government

Provincial Government

National Government

Informal actor or entity

Private Sector Firm

Other (please specify)

4. UNEP (2011) defines the green economy “as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”.

Green economy activities relate to the restoration of ecosystem services and mitigation of negative impacts on the environment (UNEP and ILO, 2011) and include activities that:

- protect biodiversity;
- reduce use/demand for energy,
- reduce use/demand for materials and water;
- reduce carbon emissions; and
- reduce and/or circumvent all forms of pollution and waste.

Does the organisation that you represent promote, facilitate or engage in any green economy activities?

Yes

No

5. Please describe these green economy activities in more detail.

6. The informal economy is recognised as “... economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements. Their activities are not included in the law, which means that they are operating outside the formal reach of the law; or they are not covered in practice, which means that – although they are operating within the formal reach of the law, the law is not applied or not enforced; or the law discourages compliance because it is inappropriate, burdensome, or imposes excessive costs” (ILO, 2003).

Do you think that green economy activities occur in the informal economy?

- Yes.
- No.

7. Please give examples of green economy activities taking place in the informal economy.

8. How do you think the informal green economy activities you identified can be supported and developed?

| | |
|--------------------------|----------------------|
| By your organisation | <input type="text"/> |
| By local government | <input type="text"/> |
| By provincial government | <input type="text"/> |
| By national government | <input type="text"/> |
| By civil society groups | <input type="text"/> |
| By formal enterprises | <input type="text"/> |

9. Please elaborate on why you feel that green economy activities do not take place in the informal economy.

10. Has your organisation engaged with informal economy entities or actors when planning or implementing green economy activities?

Yes.

No.

11. Please describe how informal economy entities or actors were engaged and the nature of their participation.

12. Please indicate the reasons why informal actors or entities were not engaged.

13. Do you feel that the current level of engagement between your organisation and the informal economy is sufficient?

Yes

No

14. Please indicate why you feel that the level of engagement between your organisation and the informal economy is sufficient.

15. Please specify why you feel the level of engagement between your organisation and the informal economy is insufficient.

16. The following is a sample of national policies and plans related to the green economy in South Africa.

How would you rate each policy or plan in terms of its level of engagement with the informal economy.

Please only rate the policies and plans that you are familiar with.

| | Very High | High | Moderate | Low | Non Existent | N/A |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Framework for Environmental Fiscal Reform (NT, 2006) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10 Year Innovation and Global Research Plan (DST, 2008) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Framework for South Africa's response to the International Economic Crisis (2009) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Medium Term Strategic Framework 2009 -2014 and 12 Outcomes (NPC, 2009) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Industrial Policy Action Plan (the dti, 2010, 2011, and 2012) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| New Growth Path, Green Economy Accord and Green Jobs Report (EDD, 2010) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Integrated Resource Plan 2010-2030 (DoE, 2011) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Draft Integrated Energy Plan (DoE, 2012) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| National Water Resource Strategy (DWA, 2013) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| National Climate Change Response (RSA, 2011) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| National Strategy for Sustainable Development (DEA, 2011) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| National Skills Development Strategy III: 2011-2016 (DHET, 2012) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| National Development Plan (NPC, 2011) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

17. What do you think are the main barriers and challenges to connecting the green economy with the informal economy in South Africa?

18. What do you think are the main opportunities and benefits of connecting the green economy with the informal economy in South Africa?

19. Please rate your response to the following statements.

Informal economy actors or entities:

| | Strongly Agree | Agree | Disagree | Strongly Disagree |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| should be involved at implementation or project stage | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be considered as part of the solution | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| have an important role in the green economy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| are part of the problem | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| are unorganised and difficult to engage | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| have no role to play in the green economy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be represented at committee level | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be considered during the planning stages | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be involved in co-producing solutions | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be engaged with more frequently | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be engaged with less frequently | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be engaged with directly | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be engaged with indirectly through representative organisations | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| should be incorporated into the green economy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Appendix B: Codebook

Table 6: Codes extracted from National Policies and Plans

| Category | Codes | Description | Example from script |
|--------------------------|-----------------|--|---|
| Direct References | | | |
| | inf market | informal market | The need to strengthen and coordinate the informal herbal medicines market presents an opportunity to grow the African traditional medicines sector, via a value-addition approach through cutting-edge biodiversity-based bioprospecting and product development research (DST, 2013). |
| | inf workers | informal workers | Traditional occupational health and safety regulation operates through formal employment structures and therefore offers limited or no protection to informal workers (NPC, 2012). |
| | Inf sector | informal sector | The informal sector and small-scale industries, in particular, are subject to numerous workplace hazards. Most informal sector workers live and work in poor areas, and vulnerability to disease and poor health result from a combination of undesirable living and working conditions (NPC, 2012) |
| | In/formal links | informal/formal links Refers to linkages between the formal and informal economies. | Furthermore, due to improvements in workplace practices in the formal economy, the hazardous jobs are pushed into the informal economy where companies can save costs (NPC, 2012). |
| | Second econ | second economy | Facilitating access to financial services particularly in poorer areas and ensure programmes explicitly |

| | | | |
|----------------------------|----------------|---|--|
| | | | targeting the second economy are scaled up – each reaching upwards of 50,000 people (NPC, 2009) |
| | Inf econ | informal economy | The informal economy is assumed to fare relatively well during crises and provides a cushion for those who lose formal sector jobs or need to supplement their formal incomes during crises (NPC, 2012). |
| | Inf employment | informal employment | There are three different forms of informal employment: workers who work in the formal sector but do not have formal contracts, workers who are employed by informal enterprises or households who also do not have formal contracts, and those who are self-employed in the informal sector. All these groups suffer high vulnerability due to the lack of effective social protection (NPC, 2012). |
| Indirect References | | | |
| | inclusive econ | inclusive economy and/ inclusive growth | We see no necessary contradiction between economic growth and development and social rights; and our approach to industrial development means never losing sight of our constitutional mandate to contribute towards building an inclusive values- and rights-based economy and society (DTI, 2014). |
| | | informal conservation system | Biodiversity and ecosystems <ul style="list-style-type: none"> • Finalising and implementing the Protected Area Expansion Strategy to create a network that is |

| | | | |
|--|-----------------------------|--|--|
| | | | <p>representative of South Africa's biodiversity</p> <ul style="list-style-type: none"> • Establishing and strengthening provincial stewardship programmes • Strengthening programmes that support the informal conservation system (DEA, 2011b). |
| | sub farm | Small-scale and subsistence farmers or farming | Under-resourced, small-scale and subsistence farmers are particularly vulnerable to the impacts of climate change (RSA, 2011). |
| | sub fish | Small-scale and subsistence fishers or fishing | For coastal areas, marine fishing is important for subsistence and employment. Subsistence fishers rely on marine resources as a basic source of food. They are largely dependent on low-cost resources that are important to the social fabric of their societies and have a long history of dependency on these resources (NPC, 2012). |
| | inf activities | informal activities | Retail and business services together are the biggest employers in most middle- and high-income economies. In South Africa, the formal retail sector accounts for almost 2 million jobs, and another 3 million jobs exist in informal activities (NPC, 2012). |
| | inf and adaptive strategies | informal and adaptive strategies | There is an insufficient understanding in policy of the informal and adaptive strategies and livelihoods of the poor. The relationship between where people live and how they survive is often overlooked (NPC, 2012). |
| | rural economy | rural economy | Rural economies will be activated through improved infrastructure and service |

| | | | |
|--|-----------------------|---|---|
| | | | delivery, a review of land tenure, service to small and micro farmers, a review of mining industry commitments to social investment, and tourism investment (NPC, 2012). |
| | unorganised | unorganised | Accurate profiling and measurement of the craft sector is the most difficult task within all the creative industries sub-sectors. The challenges range from definitions and delineation of the sector to the informal and unorganised nature of employment and trade (DTI, 2014). |
| | wastepickers | wastepickers | These objectives include creating decent work through formalising the role of waste pickers and expanding the role of SMEs and cooperatives in waste management (DEA, 2011a). |
| | cooperatives | cooperatives | The NSDS III must support the training needs of the cooperatives, including relevant capacity building for the secondary, apex and cooperative movements as a whole (DoHET, 2011). |
| | township econ | Township economies or economic activities taking place in townships | There is also little support for the informal economy, while township economies are unable to retain local spending power or attract productive investment (NPC, 2012). |
| | alt bus mod | alternative business model | Supporting alternative business models such as cooperatives and community associations (DEA, 2011b). |
| | grassroots innovation | grassroots innovation | The role of IKS will be critical in enhancing grassroots innovation for food security and improving quality way of |

| | | | |
|--|--------------------------------|--|--|
| | | | life (DST, 2013). |
| | smme | small, medium and micro enterprises | Creating an enabling environment for small, micro and medium enterprises and entrepreneurs to thrive. This includes inculcating the spirit of entrepreneurship in schools, lowering the cost of doing business in the economy, and reducing barriers to entry in various value chains (NPC, 2012). |
| | formalisation | formalisation of existing jobs | Extending and formalising jobs in the various stages of the recycling value chain, including collection, sorting, re-use and repair, product recovery, processing and manufacturing of recyclable materials (DEA, 2011a). |
| | informal livelihood practices | informal livelihood practices | Planners (and other development and built environment professionals) who lack an understanding of economic principles, market forces and commercial realities to negotiate better development outcomes, and also of informal livelihood practices and the challenges these raise for flexible and empowering regulation (NPC, 2012). |
| | small and emerging enterprises | small and emerging enterprises or businesses | These include: supporting and strengthening small and emerging enterprises; encouraging the commercialisation of new products and services; and fostering a sustainable green economy (DTI, 2014). |
| | alt econ opp | alternative economic opportunities | Integrating conservation opportunities (as an alternative economic opportunity) into the land reform programme, particularly where agriculture |

| | | | |
|--|-------------------|---|--|
| | | | is marginal (NPC, 2012). |
| | sub ent | subsistence or survivalist enterprises | Support measures should be segmented, based on whether small firms are start-ups or multiple startups; survivalist businesses; so called “dassies” or lifestyle businesses; “gazelles” or high-growth businesses; franchises; very high potential or high impact businesses; and/or new industries or new technology businesses (NPC, 2012). |
| | ind knowledge sys | indigenous knowledge systems | The country’s rich biodiversity and indigenous knowledge systems provide significant resources for bioprospecting unique offerings with potential socioeconomic value (DST, 2013). |
| | small and micro | small and micro enterprises or businesses | Water is a key enabler in the expansion of these sectors, whether it is in relation to large enterprises, small-scale or even micro-enterprises (DWA, 2013). |