

# Chapter 8

## Conclusion



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**Abstract** Transition to green economy and transport is crucial to reduce environmental problems such as greenhouse gas emissions and climate change in South Africa. However, the challenges associated with the transition present opportunities for innovation and mitigation within the green economy and transport sector. Green economy and transport sector initiatives have the potential to address economic and environmental challenges and open new sources of growth.

**Keywords** Transition · Green economy · Transport sector · Environmental problems · Climate change

### 8.1 Introduction

The green economy in the transport sector theme is an opportune theme within the context of the SDGs, national, provincial and local growth and development imperatives. This chapter provides a synthesis to the book while also engaging in reflexive thinking with respect to the future of the green economy and transport sector generally. Through this approach, the authors seek to stimulate further engagement and conversations beyond this book publication. The intention is to sustain the conversation and build further work and projects that advance the green economy and transport sector theme contextually and holistically.

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## 8.2 Synthesis

The transition to green economy and transport is crucial to reduce environmental problems such as greenhouse gas emissions and climate change in South Africa. However, there are multiple, interconnected, and complex challenges associated with the transition. These complexities and interdependencies present opportunities for innovation and mitigation within the green economy and transport sector. According to (see p. 10 in Kanianska [2017](#)) in order to advance green economy and transport transition paradigms, action and measures, the following should be in place:

- Implement and manage innovations and solutions that support economic prosperity and human well-being;
- Stimulate resource-efficient, low-carbon economic and social development;
- Safeguard people from environmental health risks.

The chapters of this book by situating the green economy and transport sector in the context of South Africa and in particular, Limpopo Province have explored the impacts of growth and development on the green economy and transport sector. Invariably, the green economy and transport sector initiatives have the potential to address economic and environmental challenges while at the same time opening new sources of growth.

Generally, growth and development efforts that are anchored on the foundations of the green economy and green growth strategy, indicators and tools have innate potential to respond to the SDGs as well as a raft of national, provincial and local development initiatives. While these green economy and strategy compliant systems have origins that can be traced from the United Kingdom, Asian, Pacific Region as well as further work that was crystallised through Organisation for Economic Co-operation and Development (OECD) (Morgera and Savaresi, [2013](#) p. 14–16), over time these concepts have assumed global and glocal relevance that makes them applicable worldwide. In this regard, the green economy and transport green strategy approach provides a ‘*lens*’ for re-examining the current economic growth paradigm whilst at the same time offering an actionable policy framework for policy and decision makers, practitioners, researchers and academics in developed, emerging and developing economies.

Acknowledging that there is no “*one-size-fits-all*” prescription for implementing strategies and interventions for green economy and transport sector growth, the chapters in the book have utilized a thematic focus that provide mechanism for actions and fulcrum movement in steering green economy and transport transition further. Indeed, greening the growth path of an economy and the transport sector depends on policy and institutional settings, transportation modes and technologies, level of development, skills and knowledge transfer, resource endowments and environmental pressure points (see p. 4 in Meadowcroft [2012](#)). Given the unique and differentiated South African apartheid driven historical legacy, the chapters have portrayed how the emerging green economy and transport sector faces different challenges and opportunities, with implications for livelihoods, climate change, environmental

sustainability, and economic diversification opportunities. This suggests that contextual green economy and transport sector solutions are strategic in measures aimed at addressing growth and development realities of any setting.

The book is anchored on a multi-disciplinary approach as a practical way to tackling the green economy and transport sector. Considering that sustainable development and transportation is broad as argued by proponents such as Sauv  , Bernard and Sloan (2016), see p. 40 in Vigar (2017), see p. 28 in Lang et al. (2012) the book has therefore focused on different themes in sustainable development and transportation in South Africa that include:

- Conceptualization of green economy and transport sector,
- Environment, climate change and the green economy,
- Transport modes and the green economy,
- Technology innovation in the green economy,
- Vehicle management, emission control and maintenance,
- Regulatory framework in the transport sector, policies and standards, and
- Skills and knowledge transfer.

Consequently, the chapters in this book have highlighted the numerous changes and the wide range of influences that impact and are impacted by the green economy and transport sector. The adopted framework of analysis was anchored on a sectoral and case study based approach that identified the challenges, opportunities and prospects for climate change, sustainable development and transportation which may enable South Africa to advance and develop in a sustainable, inclusive and resilient manner. It is against this background that this book sought to explore the issues articulated above and contributed chapters demonstrate how such matters have influenced the green economy and transport sector of South Africa. Reflecting on the post-apartheid South Africa from a climate change, sustainable development and transportation perspective, the following key objectives were answered by the chapters in the book:

- Identification of existing and emerging paradigms relating to the transition towards a green economy in the transport sector.
- Exploration of how paradigms in green economy and transport sector impact on human settlements, livelihoods and skills development in the quest of creating inclusive, resilient and sustainable development.
- Analysing the opportunities and challenges that are associated with the transition towards a green economy in the transport sector making use of Limpopo province as a case study.
- Theorizing the green economy and transport sector transition in post-apartheid South Africa.
- Advancing proposals on a national green economy and transport sector agenda and policies that will contribute to the creation of inclusive, resilience and sustainable communities in South Africa.

### 8.3 Research and Policy Directions

Attuning practice and theory through applied research that provides pathways for anchoring the green economy and transport sector strongly is important. This can be approached from multiple perspectives considering multiple dimensions to the green economy and transport sector theme. Indeed, a multi-lever and governance over-arching approach that brings together government, non-governmental sectors, industry, and academia is one way of furthering growth and development in any area. The impact of the 4th Industrial revolution as well as digital movement impacting on the transport sector as well as green economy cannot be under-estimated. A triad approach in which academia, industry and community co-investigate, co-develop and manage projects and programmes for enhanced green economy and transport sector development is fundamental. Research and policy directions in general should focus on efficacy with respect to developing transport sector specific and non-specific transport complementary skills in some areas of the under-listed topics, namely:

- Environment, climate change and the green economy,
- Transport modes and the green economy,
- Technology innovations in green transport,
- Vehicle management and emission control and maintenance,
- Skills and knowledge transfer for transitioning into the green economy, and
- Regulatory frameworks, policies, norms and standards.

However, while the chapters in the book highlight the importance of a skills and development strategy for the transport sector, it is critical to highlight that balance between and among other non-transport sectors of the economy is vital. This is to ensure that the value add of the skills development work in the green economy and transport sector is not compromised by the lack of readiness and structural alignment from the sectors whose growth and development is enabled by the transport sector service function.

### 8.4 Future Thoughts

Green economy in the transport sector provides both an approach and framework for analysing growth and development strategies and policies in any setting. The movement towards circular economies, connected and digital systems are all predicated on low carbon economies. Finding space for strongly embedding green economy and transport value chains through innovation and shifts in production and consumption systems is vital. The role that multi-disciplinary and transdisciplinary research and development partnership and collaboration between state and non-state sectors can play is immense. Future thinking and agenda should seek to better align, (re)structure and (co)locate the green economy and transport sector theme within the wider context

of industry, academia, community and the wider development practitioners landscape research and development agenda for improved efficiencies and effectiveness.

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