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A MODEL FOR INTEGRATED TOURISM INFRASTRUCTURE PLANNING IN THE SOUTH AFRICAN PUBLIC SECTOR

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A thesis submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Doctor of Philosophy

Johannesburg, 4 April 2023

Supervisors:

Professor Samuel Laryea and Professor Kevin Wall

Table of Contents

Declaration ..... ***vii***

Abstract ..... ***viii***

Dedication ..... ***ix***

Acknowledgements ..... ***x***

Glossary ..... ***xi***

A note on research papers ..... ***xiii***

Acronyms ..... ***xvii***

Preface - The Researcher's Journey ..... ***xix***

Summary overview of the thesis ..... ***xxvii***

Chapter 1 ..... ***29***

1 Contextualising the research study ***29***

1.1 Introduction ***29***

1.2 Real Life Problem ***30***

1.3 Study Background ***33***

1.3.1 Infrastructure and tourism public sector planning in South Africa 33

1.3.2 Challenges of integrating infrastructure and spatial planning..... 39

1.3.3 The case for infrastructure investment in tourism 41

1.4 A summary of the theoretical background and academic literature gaps ***43***

1.5 Research Question ***46***

1.6 Problem Statement ***47***

1.7 Research Aim ***48***

1.8 Specific Research Objectives ***48***

1.9 Research Method ***48***

1.10 Research Contribution ***51***

1.11 Scope of the study ***52***

1.12 Conclusion ***54***

Chapter 2 ..... ***55***

2 Locating the research within the literature ***55***

2.1 Introduction 55

2.2 What the literature says about infrastructure 55

2.2.1 Towards a definition of tourism infrastructure 55
2.2.2 The economic value of infrastructure 60
2.2.3 Infrastructure planning 62
2.2.4 Integrating infrastructure 66
2.2.5 The importance of infrastructure for tourism 76
2.2.6 The South African context of public sector infrastructure planning 81

2.3 What the literature says about tourism 94

2.3.1 Trends in tourism research 94
2.3.2 Tourism planning 98
2.3.3 Tourism and infrastructure development 106
2.3.4 Important tourism models 112
2.3.5 The South African context of public sector tourism planning 125

2.4 Conclusion 132

Chapter 3 137

3 Research Method 137

3.1 Introduction 137

3.2 Research Philosophy 138

3.3 Approach to theory development 140

3.4 Research Design 144

3.4.1 Unit of analysis 148
3.4.2 Methodological Choice – Case Study Strategy 151

3.5 Research Techniques and Procedures 156

3.5.1 Data Collection 156
3.5.2 Analysis of the Data 164

3.6 Quality of Research Inquiry 168

3.7 Ethical Considerations 171

3.7.1 Ethics approval and research permissions 171
3.7.2 Reflexivity 172

3.8 Conclusion 175

Chapter 4 176

4 Case Study of South Africa 176

4.1 Introduction 176

4.2 Case Study of the South African National Parks 177

4.2.1 Introduction 177

4.2.2 How is tourism infrastructure planning undertaken? 180
4.2.3 Analysis 191

4.3 Case study of Gauteng 195

4.3.1 Introduction 195
4.3.2 How is tourism infrastructure planning undertaken? 195
4.3.3 Analysis 208

4.4 Case Study of the Victoria and Albert (V&A) Waterfront, Cape Town, South Africa 218

4.4.1 Introduction 218
4.4.2 How is tourism infrastructure undertaken? 219
4.4.3 Analysis 228

4.5 A comparison of the case studies 235

4.6 Conclusion 237

Chapter 5 239

5 Research Results 239

5.1 Introduction 239

5.2 What is tourism infrastructure? 240

5.2.1 Key informant interview findings 242
5.2.2 Focus group findings 245
5.2.3 In summary 252

5.3 A model for integrated tourism infrastructure planning in the South African public sector 253

5.3.1 Key informant interview findings 253
5.3.2 The first form of the model for integrated tourism infrastructure planning in the South African public sector 273
5.3.3 Focus group findings 278
5.3.4 Testing the model for integrated tourism infrastructure planning for the South African public sector in the Karoo Region 288

5.4 Conclusion 308

Chapter 6 310

6 Proposed model for integrated tourism infrastructure planning in the South African public sector 310

6.1 Introduction 310

6.2 A detailed explanation of the model 310

6.3 Some important notes on implementation of the model for integrated tourism infrastructure planning 314

6.4 Conclusion 316

Chapter 7 317

7 Research outcomes, contribution to knowledge, study limitations, recommendations and suggestions for future research 317

7.1 Introduction 317

7.2 Research outcomes 318

7.3 An Integration of the research findings with the existing literature 320

7.3.1 What is tourism infrastructure? 320

7.3.2 A model for integrated tourism infrastructure in the South African public sector 323

7.3.3 Contribution of the study to knowledge..... 325

7.4 Recommendations 327

7.5 Limitations of the study..... 328

7.6 Suggestions for future research 329

7.7 Final words 331

References 332

Appendix 1: Interview Participant Information Sheet 356

Interview Participant Information Sheet for the research study entitled "A model for integrated tourism infrastructure planning in the South African public sector" 356

Appendix 2: Interview Participant Consent Form..... 358

Participant Consent Form 358

Appendix 3: Focus Group Participant Information Sheet..... 359

Focus Groups Participant Information Sheet for the research study entitled "A model for integrated tourism infrastructure planning in the South African public sector" 359

Appendix 4: Focus Group Participant Consent Form 361

Appendix 5: Interview and Focus Group Participant Information Sheet 362

Interview and Focus Groups Participant Information Sheet for the research study entitled "A model for integrated tourism infrastructure planning in the South African public sector" 362

Appendix 6: Interview and Focus Group Participant Consent Form 364

Participant Consent Form 364

Appendix 7: Questions for the semi-structured key informant interviews 365

Appendix 8: Research Ethics Certificate 367

Appendix 9: Letter of consent from the Department of Tourism 368

8 Appendix 10: Letter of consent from the South African National Parks (SANParks) 369

9 Appendix 11: Letter of consent from the National Treasury 370

10 Appendix 12: Letter of consent from the South African Local Government Association (SALGA) 371

Declaration

I declare that this thesis is my own, unaided work. However, the support of my supervisors and colleagues as well as comments from external examiners in refining this submission is acknowledged. The thesis is being submitted to the Degree of Doctor of Philosophy to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.



Shamilla Chettiar

4 April 2023

Abstract

Infrastructure supports competitiveness, productivity and economic growth. While planning is critical for co-ordination and delivery of infrastructure, integrated infrastructure planning models remain elusive. Integrated infrastructure planning is especially important to derive maximum benefits from limited public sector funding. This research focussed on infrastructure planning in the tourism context. Within the complex South African public sector planning system, the responsibility for infrastructure and tourism planning lies with multiple departments at national, provincial and local government spheres. Tourism infrastructure needs can therefore best be addressed through integrated planning.

This thesis presents the results of a qualitative, multi-method study. Various methods, such as reviews of documents, key-informant interviews, focus groups and case studies were utilised to gather data. The research also contains the reflections of the researcher who has extensive experience in public sector planning. The research question was: "What are the key elements of a model for integrated tourism infrastructure planning undertaken by the South African public sector?"

The model proposes three key elements - a National Tourism Spatial Development Framework; Regional Tourism Masterplans; and a Tourism Infrastructure Strategy and Plan. A People component has also emerged as being significant for the effectiveness of the model. The study further confirmed that the model will support the integration of tourism, economic, spatial and infrastructure planning and development. In the long - term integrated public sector tourism infrastructure planning in South Africa, should yield greater public sector investment, stimulate greater private sector investment, and ultimately support the growth and competitiveness of the tourism sector. This research makes a significant contribution to knowledge for integrated infrastructure planning.

Dedication

This thesis is dedicated to my family. I thank the generations that came before me who nurtured my curiosity and supported my learning. Nana, Nani, Aya, Daddy and Mummens I would not be here without you. I am grateful for the love and support of my own generation. Rubendra, Shaline, Shakira, Yashika and Gertrude you have been firmly in my corner. I am inspired each day by the next generation. Loma, Simran, Shilpa, Leano, Saina, Skylar, Sonia, Travis and Denise you make me smile and remind me that each new day brings hope. Tito you really do make me the best version of myself. Thank you for always being you – solid, loving and always present – this journey would not have been possible without you. For generations yet to come, always follow your dreams.

Acknowledgements

To my supervisors, Professor Samuel Laryea and Professor Kevin Wall, thank you for your generosity of spirit, hours of reading, advice and mostly for believing in the value of this work and my ability to deliver the thesis.

To Dr Ron Watermeyer who generously and enthusiastically shared his vast knowledge and experience of all things infrastructure and in so doing piqued my own curiosity. Thank you Ron for also introducing me to my Supervisors.

To the research participants, thank you for your willingness, time and invaluable experience and insights. To Ms Thina Litshani who voluntarily supported me as a "research assistant", I am humbled and grateful for your support.

To my public sector colleagues who toil selflessly, particularly in Department of Tourism, it remains my distinct privilege and pleasure to work with each of you. A special word of thanks to the Destination Development extended family for your constant encouragement and support on this research journey but more importantly in the work that we deliver to the people of South Africa.

To my friends, we have walked a long journey together. Thank you for all of your support, encouragement and inspiration along the way.

Lastly a huge thank you to the Department of Tourism, and by extension the South African Government, for the financial support of this research.

Glossary

Concept	Definition
Asset Based Community Development	An approach to sustainable community driven development
Condition assessment	A technical assessment of infrastructure to determine maintenance requirements
Expanded public works programme	A public works programme that provides training and skills to unemployed participants through short term work opportunities
Tourism Destination	*"A tourism destination is a physical space in which a visitor spends at least one overnight. It includes tourism products such as support services and attractions, and tourism resources within one day´s return travel time. It has physical and administrative boundaries defining its management, images and perceptions defining its market competitiveness. Tourism destinations incorporate various stakeholders often including a host community, and can nest and network to form larger destinations."* (UNWTO Think Tank 2002)
Destination Competitiveness	"*The ability of a tourism destination to maintain its market position and share and/or improve upon them through time*" (d'Hauteserre as cited in Wilde & Cox 2008)
Infrastructure	Commonly understood as public infrastructure that deals with energy, transport, water, information technology and waste
Infrastructure planning	For the purposes of this research infrastructure planning refers to full lifecycle planning for infrastructure which includes planning, implementation, operations and maintenance
Multimodal transport infrastructure	"*The network of airports, seaports, roads, railways, public transport systems and human-powered mobility options that are integrated and co-ordinated to form a transport system to move people or freight from one point to another*" (OECD 2016: 66)
National Spatial Development Framework for Tourism	Spatial mapping of current and future tourism development in order to designate and protect tourism zones

Place making	"*Placemaking is the process of creating quality places that people want to live, work, play and learn in.*" (https://www.cnu.org/publicsquare/four-types-placemaking)
Spheres of government	In South Africa, National, Provincial and Local Government are referred to as different spheres, similar to the term "levels" that is used in other country contexts
Sustainable tourism	"*Tourism that takes full account of its current and plans for future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities*" (UNEP and UNWTO 2005: 11-12)
Tourism	"*Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one year for leisure, business and other purposes.*" (UNWTO 2016)
Tourism Destination	*"A tourism destination is a physical space in which a visitor spends at least one overnight. It includes tourism products such as support services and attractions, and tourism resources within one day´s return travel time. It has physical and administrative boundaries defining its management, images and perceptions defining its market competitiveness. Tourism destinations incorporate various stakeholders often including a host community, and can nest and network to form larger destinations."* (UNWTO Think Tank 2002)
Tourism Infrastructure	The supply chain of transport, social and environmental infrastructure that help to create a destination i.e. the platform from which tourism products are delivered to tourists. (Australian Transport and Tourism Forum 2008)
Tourism Infrastructure Investment Strategy and Plan	The long term capital investment and maintenance strategy and planned projects to put in place the right tourism infrastructure that supports quality tourism destination experiences and easy access between and within destinations.
Regional Tourism Masterplan	The strategy and planned initiatives for regional tourism economic development. Typically includes an analysis of tourism supply and demand; land use; infrastructure; economic, social and environmental impact; community based development; financial sustainability and investment and institutional arrangements. Importantly a tourism region is not defined by political/administrative boundaries.

A note on research papers

Parts of this research have been published/presented as follows:

i. Chettiar, S., Laryea, S. & Wall, K. (2022). A Model for Integrated Tourism Infrastructure Planning in the South African Public Sector. African Journal of Hospitality, Tourism and Leisure, 11(SE2): 1804-1823.
ii. An abstract titled "A model for integrated tourism infrastructure planning in South Africa" was submitted and accepted for the presentation at an Association for Tourism and Leisure Education and Research (ATLAS) Africa Online Conference "Falling back in love with tourism, an African Affair". The research was presented at the Conference on the 14 February 2022.

List of Figures

Figure 1 South African Public Sector Infrastructure Planning Cycle (Source: Republic of South Africa – National Treasury, 2006) 36
Figure 2 Opinion Survey overall score for the condition of infrastructure per province (Source: Rust et al., 2021 Figure 7:40) 85
Figure 3 Project Stages as prescribed by FIPDM (Source: Republic of South Africa, 2022, Department of National Treasury, Infrastructure Planning and Appraisal Guideline, Figure 1:2) .. 89
Figure 4: Flow diagram of the stages of project development (Source: Republic of South Africa, 2022, Department of National Treasury, Infrastructure Planning and Appraisal Guideline, Figure 2:4) 90
Figure 5 Evolution of Tourism Planning – Adapted from Tosun and Jenkins (1998: 102) 100
Figure 6 Relationships between planning traditions, key themes in tourism development, global development milestones, and humanity's global footprint (Hall, 2015a"as cited in Saarinen, Rogerson and Hall, 2017: 309) 102
Figure 7 The Empirical Research Process (Source: Adapted from The Research "Onion" Saunders, Lewis & Thornhill 2016: 124 Figure 4.1) " 138
Figure 8 A graphic representation of the current status of the tourism and infrastructure planning system for Gauteng, South Africa (adapted from the South African Public Sector Infrastructure Planning Cycle from Republic of South Africa – National Treasury 2006) (Figure on the left hand side) Diagram shared with key informant interview participants expressing the researcher's perspective on the current government planning cycle and suggested elements for a new model of a new model(blocks on the right hand side) 143
Figure 9 Graphic representation of the research participants per main category of experience .. 157
Figure 10 Graphic representation of public and private sector research participants 158
Figure 11 Map of the Greater Kruger National Park (Source: Chidkadel, Eb & Child, 2020 Figure 2:1104) 182
Figure 12 The scale of the Greater Kruger National Park Economy (Source: Chidkadel, Eb & Child, 2020 Figure 4:1111) 183
Figure 13: Maintenance budgets required for all National Parks, excluding the Kruger National Park (Source: SANParks, 2021:18) 185
Figure 14: Maintenance budgets required for the Kruger National Park (Source: SANParks, 2021: 18) 185
Figure 15 Blue IQ Projects and their locations within the Gauteng Province of South Africa (Source: Blue IQ Marketing Materials 2000. Note: NEGI refers to the North Eastern Gauteng Initiative which was the original name of the Dinokeng project) 196
Figure 16 Dinokeng Integrated Tourism Destination Concept of Hubs and Nodes (Source: Gauteng Provincial Government 2001, Dinokeng Integrated Tourism Development Framework:5) 198
Figure 17 Seven categories of tourism infrastructure (Source: Gauteng Provincial Government, 2012c, Summary presentation on the Gauteng Infrastructure Strategy and Plan) 203
Figure 18 Results of visitor satisfaction survey (Source: Grant Thornton 2014 as cited in Gauteng Provincial Government, 2015) 205
Figure 19 Venn diagram illustrating shared issues between transport and tourism (Source Gauteng Provincial Government, 2015) 206
Figure 20 Package of Plans Process (Source: Birkby, 1998:16) 223
Figure 21 Comparative aerial views of the V&AW Residential and Marina Basin in the 1980s and 2012 (Source V&A Waterfront, 2012 as cited in De Villiers, 2016: Figure 1.1.) 225
Figure 22 Outline of the research findings section (Source: Researcher's own construction) 240

Figure 23: Word Cloud of elements of key informant interview participants' definitions of tourism infrastructure *241*
Figure 24 : Definition of tourism infrastructure presented to Focus Group Participants for their inputs *246*
Figure 25 Definition of tourism infrastructure containing inputs of Focus Group Participants inputs (grey text) *250*
Figure 26: A proposed definition of tourism infrastructure for use in the South African Public Sector *252*
Figure 27 Mind map of key informant interviewee's thoughts on a model for integrated tourism infrastructure planning in the South African public sector (Source: Researchers own construction) *254*
Figure 28 A graphic representation of the current status of the tourism and infrastructure planning system for Gauteng, South Africa (adapted from the South African Public Sector Infrastructure Planning Cycle from Republic of South Africa – National Treasury 2006) (Figure on the left hand side) Diagram shared with key informant interviewees expressing the researcher's perspective on the current government planning cycle and suggested elements for a new model (blocks on the right hand side) *262*
Figure 29 Hierarchy of plans envisaged in the first form of the model for integrated tourism infrastructure planning *274*
Figure 30 Purpose and content of the elements of the model for integrated tourism infrastructure planning *275*
Figure 31 Roles of tourism and infrastructure planners for elements of the model of integrated tourism infrastructure planning *276*
Figure 32 First form of a model for integrated tourism infrastructure planning presented to focus group participants(Researchers own construction) *277*
Figure 33: Second form of a model for integrated tourism infrastructure planning post first two focus groups(Researchers own construction) *287*
Figure 34: Map of the Karoo Region (Source: Karoo Regional Spatial Development Framework Map 1:10) *289*
Figure 35: Karoo Region Tourism Infrastructure Initiative Areas (Department of Tourism 2022) *298*
Figure 36: The researcher's assessment from testing the model in the Karoo Region *308*
Figure 37 A proposed model for integrated tourism infrastructure planning in the South African public sector (Source: Researchers' own construction) *309*
Figure 38 Definition of Tourism (UNWTO, 2016) and Tourism Infrastructure (Adapted from Australian Transport and Tourism Forum, 2008) *311*
Figure 39 Roles and Responsibilities of Tourism Planners, Infrastructure and Transport Planners for the National Spatial Development Framework, Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan (Source: Researchers own construction) *312*
Figure 40 People Element – Important issues for consideration (Source: Researchers own construction) *313*
Figure 41 Assumptions and Definitions for the National Spatial Development Framework, Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan (Source: Researchers own construction) *314*
Figure 42 Integration of the various building blocks of the model with applicable policies, strategies and plans *315*

List of Tables

Table 1 Summary overview of the thesis xxvii
Table 2 Allocation of constitutional mandate and powers for infrastructure and tourism in South Africa (Gauteng Provincial Government, 2012: 25 – 26 adapted from OECD, 2011 and Republic of South Africa, 1996) 34
Table 3 Five principles of good infrastructure planning – research findings and recommendations 71
Table 4 Growth rates of various Cape Town Tourism Attractions between 2015 – 2019 80
Table 5 Breakdown of percentage of 2016/17 capital budget spent and number of municipalities 83
Table 6 Overall grades from the SAICE Infrastructure Report Cards for 2006, 2011 and 2017 83
Table 7 Pulido-Fernández & Rodríguez-Díaz, 2016 Study Rankings vs WEF 2015 Rankings 119
Table 8 Connecting the specific research objectives to the literature 133
Table 9 Summary of research objectives, strategy, techniques, population and sample 145
Table 10 Summary of Tourism Statistics to National Parks for 2019/20 Financial year 179
Table 11 Infrastructure Asset Types for SANParks in various regions 181
Table 12: Summary of SANParks projects funded by the National Department of Tourism in 2019/20 Financial Year 186
Table 13: Cumulative employment created in the National Parks through the maintenance programme 188
Table 14 Deliverables on National Parks maintenance programme 188
Table 15 Contextual Framework for V&A Waterfront Development submitted to the Cape Town City Council in 1990 223
Table 16 Summary of expenditure on initial phases of the V&AW development (Source: reproduced from De Villiers, 2016 Table 1.3) 224
Table 17 Connecting the specific research objectives to the case studies 237
Table 18: List of infrastructure related initiatives in the Karoo Region that are supported by the National Department of Tourism (Source: National Department of Tourism Presentation for the Karoo Region Stakeholder Forum, July 2021) 295

Acronyms

Acronym	Full Term
CESA	Consulting Engineers South Africa
CIDB	Construction Industry Development Board
COGTA	Cooperative Governance and Traditional Affairs
COH WHS	Cradle of Humankind World Heritage Site
CSIR	Council for Scientific and Industrial Research
DBSA	Development Bank of Southern Africa
DCoG	Department of Co-operative Governance
DPW	Department of Public Works
DPWI	Department of Public Works and Infrastructure
ECPTA	Eastern Cape Parks and Tourism Authority
EPAC	Economic Planning and Advisory Commission
FIDPM	Framework for Infrastructure Delivery and Procurement Management
GDARD	Gauteng Department of Agriculture and Rural Development
GDP	Gross Domestic Product
GDPR	Gross Domestic Product per Region
GDS	Growth and Development Strategy
GTA	Gauteng Tourism Authority
GTAC	Government Technical Advisory Centre
ICC	Interpretation Centre Complex
IDIP	Infrastructure Delivery Improvement Programme
IDP	Integrated Development Plan
IRC	Infrastructure Report Card
ISA	Infrastructure South Africa
IUDF	Integrated Urban Development Framework
IPAP	Industrial Policy Action Plan
KZN	KwaZulu-Natal
LED	Local Economic Development
MENA	Middle East and North Africa
MIG	Municipal Infrastructure Grant

MISA	Municipal Infrastructure Support Agency
MTEF	Medium Term Expenditure Framework
MTSF	Medium Term Strategic Framework
NDP	National Development Plan
NSDP	National Spatial Development Perspective
NIMS	National Infrastructure Maintenance Strategy
NIP	National Infrastructure Plan
PATII	Priority Areas for Tourism Infrastructure Investment
PICC	Presidential Infrastructure Coordinating Commission
PPP	Public Private Partnership
SAA	South African Airways
SAICE	South African Institution of Civil Engineering
SALGA	South African Local Government Association
SANParks	South African National Parks
SEIIP	Strategic Economic Infrastructure Investment Programme
SDF	Spatial Development Framework
SIP	Strategic Integrated Project
SIPDM	Standard for Infrastructure Procurement and Delivery Management
SKA	Square Kilometre Array
SPLUMA	Spatial Planning and Land Use Management Act
TALC	Tourism Area Life Cycle
TDC	Tourism Destination Competitiveness
TBCSA	Tourism Business Council of South Africa
TKZN	Tourism KwaZulu-Natal
TTCI	Travel and Tourism Competitiveness Index
UNWTO	United Nations World Tourism Organisation
WEF	World Economic Forum
WfT	Working for Tourism
WTTC	World Travel and Tourism Council

Preface - The Researcher's Journey

I made a conscious and deliberate decision to join the public service. Despite the challenges of the public sector, I believe that it is still a space in which a committed individual can positively impact on the lives of citizens. This research has been shaped by my professional experience in the South African public sector. Over a period of twenty years, in various roles, I have been involved in policy, strategy and implementation for tourism development.

I wandered into tourism and infrastructure development by accident rather than design. This journey begun when I joined the Gauteng Provincial Government in 2000. In Gauteng I would have the privilege of working with both the Dinokeng and the Cradle of Humankind World Heritage Site (COH WHS) geospatial tourism projects from conceptualisation through construction and into operation. I subsequently took on the broader role of managing Tourism Infrastructure for the Gauteng Province. In hindsight, the fifteen years that I spent in the Gauteng Province were really a preparation for my current role at the National Department of Tourism as Deputy Director General: Destination Development responsible for tourism places, spaces, experiences and route development in South Africa.

Both the Dinokeng and COH WHS had very small teams, each comprised of five technical staff (Programme Manager, Tourism and Marketing Manager, Infrastructure Manager, Integrated Environment and Conservation Management Manager and Public Participation Manager) and two administrative support staff (Personal Assistant to the Programme Manager and an Administration Officer). The initial purpose of these teams was to lead and direct the delivery of tourism Masterplans for each of these projects. There were no infrastructure or tourism experts within these teams and in retrospect I believe that this factor largely contributed to the success of these projects. There is a freedom that only "novices" can have to explore new directions without being weighed down by

preconceived ideas. "Novices" are also not afraid to seek out expertise and support or try untested ideas. The Masterplan process was supported by a consulting team with a vast range of skills and expertise. Due to the size of the Dinokeng and COHW WHS teams and the intensity of the initial Masterplan process, the entire team was effectively engaged in all aspects of the Masterplan in order to ensure integrated planning and coherent development. The Dinokeng and COH WHS teams also worked closely with each other in order to share best practices and cross pollinate ideas between the two projects.

In retrospect, I learnt a great deal about integrated planning through the Dinokeng and COH WHS Masterplan processes. These are some of the lessons that continue to inform my work:

1. Masterplans are very useful tools for integrated planning. They serve as blueprints for progressive implementation of long-term projects and assist with managing budgets for multi-year projects. The Dinokeng and COH WHS Masterplans were incorporated into the Integrated Development Plans (IDPs) of the local authorities shortly after they were developed in 2001 and continue to inform the integrated development plans for the local authorities in both areas. The Dinokeng and COH WHS projects are also firmly entrenched in the Gauteng Provincial Government planning processes.
2. Masterplans take time to develop but are worth the resource commitment, the Dinokeng and COH WHS Masterplans took just over a year to be completed. Masterplans require a genuine commitment to meaningful participation of all stakeholder groupings in order to ensure long-term buy-in. In Dinokeng for example this effectively meant managing the diverse needs and expectations of about 50 stakeholder groupings which included private citizens, government departments and the business sector.
3. The process of planning is as, if not more, important as the outcome and people matter. If you take the time to listen carefully, you will realise that

regardless of how complex a problem is, the people who have engaged with the problem also usually have a solution/s. In the COH WHS Masterplan process for example the team had for some time been challenged with getting signed agreements from landowners to grant access for scientists to fossil sites that were on private land. After protracted negotiations it turned out that the landowners were happy to grant scientists access to the fossil sites but did not want to sign the agreements as they saw these as leverage to address the real issue that they were concerned about which was about upgrading the roads. Once the matter of the road upgrades were resolved, landowners happily signed the agreements.

4. Masterplans require a multidisciplinary team who have different expertise but also a client who actively manages for a desired outcome. The development of the COH WHS Masterplan for example required expertise in environment and conservation management; heritage management; tourism management; marketing; infrastructure development; community benefits and Public Private Partnerships (PPPs).
5. By far the greatest lesson that I learnt however was that tourism development was not just about tourism. From the onset, the Dinokeng and the COH WHS projects were driven by an economic growth and job creation imperative rather than a tourism development imperative. The intention was always that these projects would also contribute to economic growth and job creation for the broader region; the Dinokeng project area traversed three Provinces i.e. Gauteng, Mpumalanga and Limpopo while the COH WHS traversed two Provinces i.e. Gauteng and the North West. Tourism development must be contextualised within broader development, tourism planning cannot be done in isolation of broader planning i.e. integrated planning is essential. Tourism and infrastructure development are intertwined. Tourism planning includes both spatial and economic planning.

Dinokeng and the COH WHS are considered to be successful tourism projects. My work on these projects fostered an enthusiasm for integrated tourism infrastructure planning. The initial public sector project funding was provided during a period when the Gauteng Provincial Treasury was cash flush and targeted investment in tourism development and tourism infrastructure was possible. Since the initial infrastructure investments, the State has continued to invest in maintenance and operations at both sites. However, it has grown increasingly difficult to source budgets for further tourism infrastructure investments given competing government priorities.

In my role of managing Gauteng wide tourism infrastructure projects, I was instrumental in developing the Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government, 2012c), the Tourism Project Portfolio (Gauteng Provincial Government, 2012d) and the Tourism Transport Plan (Gauteng Provincial Government, 2015).

The intention of the Tourism Infrastructure Strategy and Plan was to understand the existing supply of tourism infrastructure, future demands from tourism and further infrastructure investment requirements to support continued tourism growth for the Province. It is acknowledged in the Gauteng Tourism Infrastructure Toolkit (Gauteng Provincial Government, 2013) that although Gauteng has an extensive tourism infrastructure base it is often underutilised or underperforming. This document also indicates that while Gauteng has a good track record of unlocking investment for iconic tourism developments, the track record for funding of ongoing maintenance and management of such tourism infrastructure has been uneven. Tourism infrastructure development and management still, in the main, only considers planning and construction costs and does not at present take a lifecycle approach to management of tourism infrastructure.

Aligned to the Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government, 2012c) was a separate project called the Tourism Project Portfolio (Gauteng Provincial Government, 2012d). The purpose of this project was to identify and compile project documentation for tourism infrastructure projects that required investment facilitation support. This project identified 79 tourism infrastructure investment projects across the Province, only 12 of which were investment ready, 21 which were at a pre-feasibility stage and 46 that were purely conceptual[1]. This project highlighted the lack of project preparation and packaging support for tourism infrastructure projects.

Given the importance of transport infrastructure as a key enabler of tourism, the Gauteng Tourism Transport Plan was developed to deliver a better-coordinated and integrated approach to provincial tourism and transport planning (Gauteng Provincial Government, 2015: 5).

It took enormous deliberate efforts on the part of the Gauteng tourism team to integrate tourism and infrastructure planning as this process of integration would not have occurred organically. Our team canvassed the Tourism Infrastructure Strategy and Plan and the Tourism Transport Plan with relevant government Departments and although individuals within those Departments supported the integration of tourism infrastructure with their own sectors, it was not possible to gain institutional support for the tourism infrastructure work. Co-operative governance is not always co-operative. Within the context of diminishing budgets, this meant that many of the tourism infrastructure projects that had been envisaged would not materialise.

Around 2014/15, whilst our team was still grappling with how best to integrate our work with that of other sectoral Departments, we received confirmation of significant funding from the National Department of Tourism for the expansion of

[1] This is not an unusual as Infrastructure South Africa (2020) has reported that the proper planning and packaging of infrastructure projects in South Africa remains a challenge.

tourism facilities at the Maropeng Interpretation Centre in the COH WHS. In the planning, implementation and operation of the COH WHS the Provincial Government had always had a firm partner in the University of the Witwatersrand (Wits). The University representative on the Board of the Maropeng Interpretation Centre suggested that we speak to the University's Infrastructure Unit who might be able to assist with planning and implementation for the expansion of the visitor facilities. This is how I first encountered Dr Ron Watermeyer who later introduced me to Professor Samuel Laryea and Professor Kevin Wall. All three of these extraordinary individuals have had a role to play in my journey to understand infrastructure planning.

Dr Watermeyer had recently worked with the Wits team to successfully achieve "value for money" through early contractor involvement (Laryea and Watermeyer, 2016) on the University's infrastructure projects and later on the delivery of the 14 new universities where the University of the Witwatersrand was an implementing agent for the Department of Higher Education and Training (DHET). As he explains (Watermeyer, 2013), the "value for money" proposition does not necessarily mean the cheapest price but is about achieving a balance between economy, efficiency and effectiveness and deriving the maximum benefit from the money spent in the delivery of infrastructure. This also implies that the procurement and delivery management system for infrastructure needs to be different to those for other goods and services, where lowest price is the key imperative. In our first engagement with Dr Watermeyer, he enthusiastically explained all of this in a great amount of detail and expressed that he would be happy to work with our team in the delivery of the Maropeng infrastructure expansion provided that we were willing to follow the approach taken by the University of the Witwatersrand despite this not yet being a National Treasury approved approach.

Dr Watermeyer's advice seemed imminently sensible and our team was grateful to let his expertise guide our infrastructure process. The process that we embarked on was published by National Treasury in 2015 and called the Standard for Infrastructure Procurement and Delivery Management (SIPDM) (Watermeyer & Phillips, 2020). Dr Watermeyer was instrumental in the development of the Infrastructure Delivery and Management System (IDMS) and related SIPDM for National Treasury. Dr Watermeyer not only assisted us with the Maropeng expansion project but later also trained all of the relevant staff at the National Department of Tourism on the IDMS and SIPDM and assisted our team to align our procurement policies with SIPDM. The most valuable lesson that I have learnt from Dr Watermeyer is that my role as a client is to manage the business case of the infrastructure projects that we deliver. Working with Dr Watermeyer has given both me and my team the knowledge and confidence to manage the business case for delivery of our infrastructure projects.

Professor Samuel Laryea joined Dr Watermeyer in the first evaluation process for built environment professionals for the Maropeng Infrastructure Expansion Project. They say that when the student is ready, the teacher appears. I had long considered completing a PhD, had even previously registered for one but abandoned this course after a year. In Professor Laryea however I found a supportive teacher. He has never wavered in his confidence in my ability to complete this PhD even though my own confidence often has. Professor Laryea has believed in the academic value of this work and nurtured it from our very first meeting in 2014.

Professor Kevin Wall agreed to co-supervise my PhD in 2017. Professor Wall has consistently encouraged me to find my own voice and reminds me often that I have gained invaluable work experience that should be shared. Professor Wall introduced me to the South African Infrastructure Scorecard (which he has co-authored) and the critical role of infrastructure maintenance. This evidence base

has informed the decision by the National Department of Tourism to fund a maintenance programme for our National Parks and Provincial Tourism Assets. The importance of maintenance is now firmly entrenched in our thinking about infrastructure.

In my work in the Public Sector, I have managed every aspect of tourism from destination planning, development, management and marketing. All of these experiences and skills have uniquely prepared for my role as Deputy Director General: Destination Development for South Africa. I have the distinct privilege and pleasure of working with an amazing team of committed public servants in the Department of Tourism. Together we have crafted an approach to Destination Development that draws on our collective experiences and thinking. The intention of this destination development approach is to create a pipeline of tourism projects for progressive implementation from initial concept, through feasibility, investment promotion, implementation, operations and handover. This ever evolving approach to Destination Development is at the heart of this research study.

This study lies at the intersection of real life and research. I believe that no research is neutral. The researcher both shapes and is shaped by the research. I embarked on this research study as I am invested in finding practical solutions for public sector delivery of tourism infrastructure.

Summary overview of the thesis

The summary below provides an overview of the thesis and is intended to help the reader to navigate the content of this document.

Table 1 Summary overview of the thesis

NO.	CHAPTER TITLE	SUMMARISED CONTENT OF THE CHAPTER
1	Contextualising the research	This section introduces the research. It begins by describing the real life problem that the research study seeks to address. Background information on the South African public sector tourism and infrastructure planning context is then provided. This is followed by a brief summary of the theoretical background which links the gaps in the academic literature to the research statement, research question, research aim and the specific research objectives. The research method is described. The chapter highlights the practical, knowledge and theoretical contribution that will be made by this research and concludes by presenting the limitations of the study.
A critical literature review		
2	Locating the research within the literature	This section assists the reader to locate the study within existing infrastructure and tourism literature. This section is arranged in two parts. It begins with an exploration of the definition of infrastructure broadly and tourism infrastructure specifically. This is followed by a history of infrastructure planning, infrastructure integration, the critical role of infrastructure in tourism and the South African public sector infrastructure planning context. The second part contains a broad overview of trends in tourism research, the history of tourism planning, a detailed overview of the Tourism Area Life Cycle (TALC) and Tourism Destination Competitiveness (TDC) models and the South African tourism planning context. This section draws on

		scholarly work from tourism, economics, infrastructure and spatial planning.
The research		
3	Research Method	This section describes the research method, philosophy, approach to theory development, research design, data collection and analysis and concludes with the ethical considerations.
4	Case studies	This section presents a multiple case study of South Africa through three individual case studies of the South African National Parks (SANParks); Gauteng and the Victoria and Alfred Waterfront. Each of these cases is representative of integrated infrastructure planning at the national, provincial and local spheres of government.
5	Research Results	This section discusses the research findings from the key informant interviews and focus groups and integrates these findings with data from the case studies.
6	A proposed model for integrated tourism infrastructure planning in the South African Public Sector	This section presents and discusses the final model for integrated tourism infrastructure planning which represents the culmination of this research
6	Discussion, recommendations and conclusions of the research	This section revisits the objectives of the research study and connects these objectives to the body of theory. This section also includes the contribution of the research study, highlights limitations of the study, makes recommendations and suggests areas for future research.
7	Reference List	This section acknowledges all the resources used to substantiate this study.
8	Appendices	The final section of this thesis includes the research instrument, letters of consent and the ethics clearance certificate.

(Source: Researcher's own construction)

A model for integrated tourism infrastructure planning in the South African public sector

Chapter 1

1 Contextualising the research study

1.1 Introduction

This chapter introduces the research. It begins by describing the real life problem that the research study seeks to address. It sketches the background context of the research study. It goes on to provide the theoretical background and link the gaps in the academic literature to the research statement, question, aim and the specific research objectives. The chapter also provides a description of the research method, highlights the limitations of the study and concludes with the practical, knowledge and theoretical contributions that will be made by this research.

Efficient and effective investment in infrastructure positively correlates with economic growth, competitiveness and productivity (Hickman, Hall, Croft, Mitchell & Lee, 2019; Watermeyer & Phillips, 2020). Conversely, the lack of investment in infrastructure has negative impacts on both the economy and people (Hickman et al., 2019; Gaal & Afrah, 2017; Jerome, 2011). Due to the complexity of infrastructure planning, silo planning persists for individual infrastructure sectors, e.g. water supply, energy and transport. It has been argued that current models for infrastructure planning are unable to address the complexities of cross-sectoral (i.e. infrastructure sectors) interdependencies as well as uncertain future demands and technological advances (Hall, Henriques, Hickford and Nicholls, 2013). While planning is critical for co-ordination and integrated delivery of infrastructure, integrated infrastructure planning models remain elusive (Hickman et al., 2019; Hall et al., 2013).

Tourism has expanded as a spontaneous rather than planned activity (Tosun & Jenkins, 1998; Kerimoglu, Koramaz, Yazgi & Erteken, 2013; Costa, 2020). Until the beginning of the 1900's (Costa, 2020) infrastructure planning for leisure travel was incorporated into mainstream planning as tourism facilities and infrastructure were limited to a small number of amenities, restaurants and small accommodation facilities (Costa, 2020). Tourism planning emerged out of necessity over the past 75 years, as mass tourism changed the pace of development and shaped economies globally (Costa, 2020). Original tourism planning approaches followed prevalent urban and regional planning models in the 1950s/60s (Costa, 2001; Costa, 2020; Dredge, 1999; Neuman & Smith, 2010). Costa (2020) argues that future tourism planning theory and practice will require models that link economic, spatial and infrastructure planning. Public sector interventions will need to shift from controlling the impact of tourism development to maximising the economic benefits from tourism, in partnership with the private sector, through the integration of tourism, economic, spatial and infrastructure planning and development (Costa, 2020).

1.2 Real Life Problem

The South African public sector planning system is well established. The Medium Term Strategic Planning Framework (MTSF), which outlines government's strategic direction, is a five-year planning cycle. The Medium Term Expenditure Framework (MTEF – applicable to the National and Provincial Government) and the Medium Term Revenue and Expenditure Framework (MTREF – applicable to Local Government), which outlines indicative budgets, is a three-year planning cycle. For National and Provincial Government, an Annual Performance Plan (APP) is also created, and this document translates the MTSF and MTEF into annual targets and deliverables. Similarly, at Local Government level, a Service Delivery Budget and Implementation Plan (SDBIP) is also developed, which then translates the MTSF and MTREF into annual targets and deliverables. All government departments and entities are required to produce strategic, budgetary and

performance plans in five, three and one year cycles. These timelines are aligned to a political term (five years) and budgeting cycle (three years) and present challenges for projects that need to be delivered over multiple political terms and budgeting cycles.

The first challenge of the current system of planning is the misalignment of the timelines[2]. The infrastructure planning cycle does not fit neatly into either the three or five year cycle, with typical infrastructure projects running for 4.5 years, planning taking 12 to 14 months (Republic of South Africa – National Treasury, 2006). Infrastructure planning also takes a more long-term view with planning being done in 10, 20 or 50 year cycles. It also needs between 5 and 20 years to develop, fully, a tourism destination[3] from initial conceptualisation through to development and operation – Vilakazi Street and the Midlands Meander are cases in point. At present, tourism infrastructure planning, in rare instances where it does take place, does not take a long-term view, which makes it challenging to develop tourism destinations.

The second challenge of the current system of planning is that it typically results in planning for tourism and infrastructure taking place in silos. Although both tourism and infrastructure planners[4] work within the MTSF, MTEF and MTREF planning cycle, a key challenge is that planning for these sectors takes place independently of each other, and planning for tourism takes place outside the infrastructure planning cycle[5]. Further, infrastructure planning is not a key component of current tourism planning practices. Tourism, also, is not a

[2] This challenge is generic for all public sector work and is not peculiar to just tourism or infrastructure. However, the study will only assess the implications for tourism infrastructure planning.

[3] *A tourism destination is a space where a tourist overnights. This includes tourism attractions and products with physical and administrative boundaries. Tourism destinations incorporate various stakeholders. Smaller destinations can connect to form a network larger destinations.* (UNWTO Think Tank 2002)

[4] In a South African public sector context tourism as a sector is planned for by tourism officials at all three spheres of government. Infrastructure structure planning is typically planned for in Departments that roll out large scale infrastructure projects likes the Department of Public Works and the Department of Transport. A more detailed explanation of the allocation of responsibilities for infrastructure development is contained in the background to the study.

[5] In the annual cycle of planning departments responsible for infrastructure submit their indicative budgets in June and have tentative finalisation of these by December. Other government departments submit their indicative budgets in September and have tentative finalisation in February.

significant element of current infrastructure planning practice. In the current system, government departments responsible for infrastructure projects, e.g. Department of Public Works, do not typically plan for infrastructure for the tourism sector. The tourism sector also does not have sufficient budgets[6] to roll out infrastructure planning and implementation for the entire country, resulting in this need not being prioritised. Future growth in the tourism sector is premised on the provision and growth in tourism infrastructure. It is therefore imperative for these requirements to be integrated into the work, and more importantly, the budgeting of government departments primarily responsible for roll out of infrastructure projects.

In summary, the gap in the current planning practices is that it is aligned with political terms, which do not correspond with the planning cycles of typical infrastructure or tourism planning. While there has been an attempt to fit infrastructure planning within the broader planning sequence, this has resulted in a different planning cycle for infrastructure, since tourism planning takes place outside of infrastructure planning . Lastly, although planning is presumed to have both top down and bottom up linkages, this is rarely the case. A critical assessment of the current planning context indicates that this planning system requires improvements in order to support tourism infrastructure planning. This review also highlights that a model to integrate tourism infrastructure planning would need to be considered within the current planning cycles of government.

[6] On average, the annual National Tourism budget for infrastructure is approximately R 200 million to service tourism infrastructure priorities across the entire country.

1.3 Study Background

1.3.1 Infrastructure and tourism public sector planning in South Africa

The 1996 Constitution identifies infrastructure and tourism as shared functions between all levels of government (Gauteng Provincial Government, 2012). This makes for a very complex policy and planning process, negotiated by different departments and agencies at the various government spheres. National government is largely responsible for policy and strategy development and regulation and management of national assets, including national parks and botanical gardens, national roads, international and domestic airports (Gauteng Provincial Government, 2012). Provincial governments have a role in regional planning, development and regulation of both tourism and infrastructure, as well as the management of provincial assets like nature reserves. Both National and Provincial government are also responsible for "cultural management". Public works is shared between Provincial and National government, but the local sphere is responsible for local roads and public transport, bulk and reticulation systems, sanitation, waste management, policing and traffic management (Gauteng Provincial Government, 2012). Public transport and land use regulation are concurrent functions for all three spheres of government. The allocation of constitutional mandates and powers for tourism and infrastructure are outlined in Table 2 below (Gauteng Provincial Government, 2012:25 -26 adapted from OECD, 2011, and Republic of South Africa, 1996).

Table 2 Allocation of constitutional mandate and powers for infrastructure and tourism in South Africa (Gauteng Provincial Government, 2012: 25 – 26 adapted from OECD, 2011 and Republic of South Africa, 1996)

Function	*National Government*	*Provincial Government*	*Local Government*	
			District Municipality	*Local Municipality*
Spatial and development planning	*Regulation*	*Regional planning and development, urban and rural development*	*Regional planning*	*Local planning and development control, building regulations*
Economic development and tourism	*Macroeconomic policies, lotteries, tourism*	*Industrial policy and promotion, regional economic planning, casinos, racing, gambling and wagering, tourism, liquor licences*	*District tourism: promote economic development of community*	*Local tourism, promote economic development of community, trading regulations, markets*
Environment	*Regulations, national parks, national botanical gardens*	*Planning and regulations, nature conservation, population control*	*Environmental enforcement*	*Noise pollution, air pollution*
Transport	*National roads, rail, major ports, international and national airports*	*Provincial roads and traffic, public transport, vehicle licensing*	*District roads, municipal public transport*	*Local airports, local roads, local public transport, harbours and ferries*
Water	*Bulk/dam*	*Pollution control*		*Bulk and reticulation, limited to potable water supply*

Waste Management	*Regulations*	*Pollution control*		*Sanitation, limited to domestic wastewater and sewage disposal systems, storm water, refuse and solid waste disposal, cleansing*
Public safety	*Policing*	*Policing oversight and traffic management, disaster management, ambulance services*		*Metro policing, traffic management, fire-fighting services, control of public nuisances*
Education	*Tertiary*	*Implementation and policy*		*Early childhood development*
Health	*Regulation*	*Tertiary, secondary and primary*	*Municipal health*	*Municipal health, licensing of outlets, selling food, municipal parks and recreation*
Culture, recreation and sport	*Policy, national museums, national cultural institutions*	*Cultural matters, museums, recreation, sport*		*Amusement facilities, outdoor advertising, local sport facilities*
Public works and infrastructure	*Public works*	*Provincial public works*		*Municipal public works, electricity and gas reticulation, street lighting, parking*

Source: Gauteng Provincial Government (2012: 25 -26) adapted from OECD (2011) and Republic of South Africa (1996)

Within the public sector there has been an attempt to contextualise the infrastructure planning cycle within the broader public planning cycle as outlined in Figure 1 below (Republic of South Africa – National Treasury 2006)

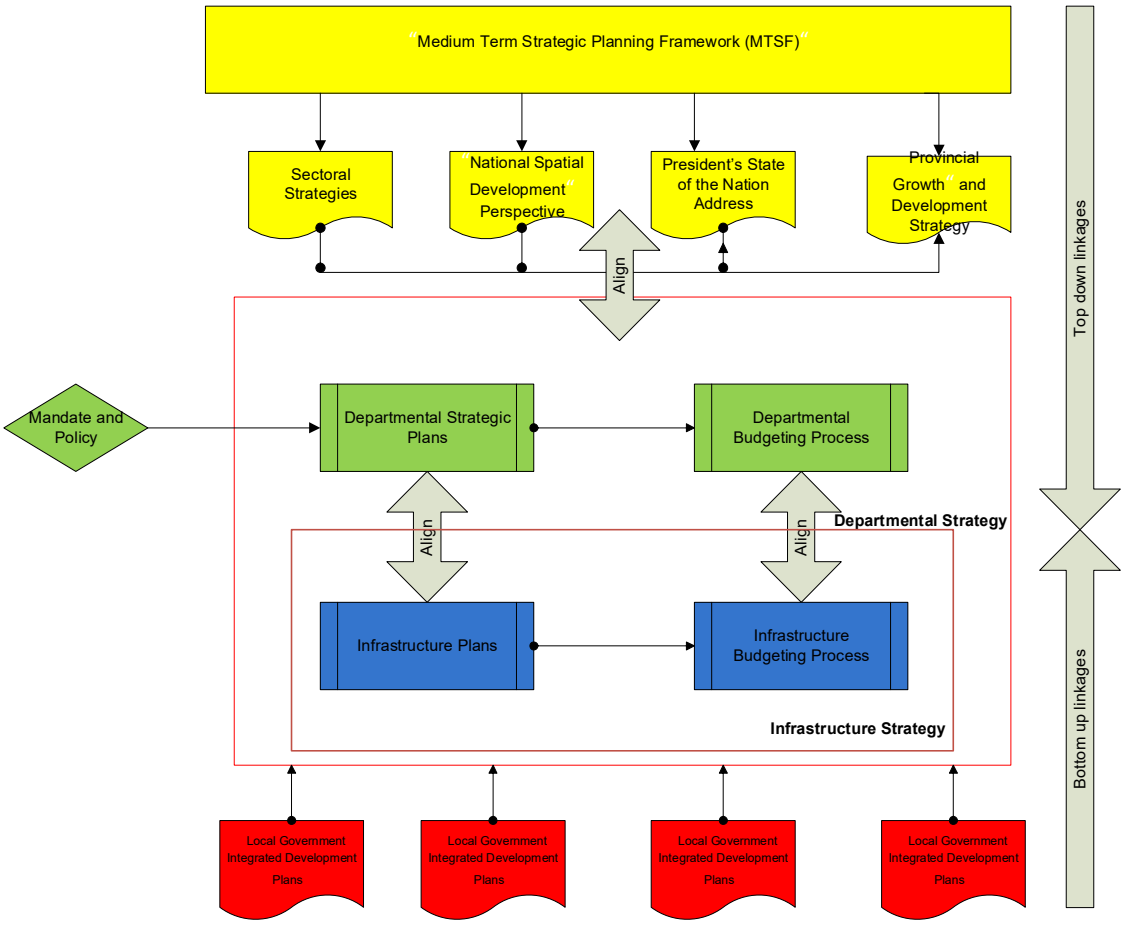


Figure 1 South African Public Sector Infrastructure Planning Cycle (Source: Republic of South Africa – National Treasury, 2006)

The elements of the planning cycle can broadly be separated into strategies and planning documents as follows:

- Strategies - National Development Plan (NDP), Sectoral Strategies, Provincial Growth and Development Strategy
- Planning Documents – National and Provincial Spatial Development Perspectives, Integrated Urban Development Framework (IUDF), Infrastructure Plans and Integrated Development Plans (IDPs).

All of the strategies and planning documents are hierarchical in nature. Although there should be bottom up and top down linkages this is rarely the case. In reality, as National and Provincial elections precede Local Government elections, Local Government takes its direction from National and Provincial strategies and planning documents. Strategies are by their nature long term documents for example the National Development Plan sets out a vision until 2030. Although strategies are reviewed periodically, the public sector process to change these is time consuming involving both public participation and Cabinet approval processes. Planning documents on the other hand are reviewed on at least a five yearly basis. In public sector planning in order for infrastructure projects to materialise, they need to be expressed in the IDPs of the relevant local authorities. The IDP therefore has singular importance however the IUDF (2016) argues that *"the IDP has lost much of its centrality as a lever for development, implementation varies across municipalities with poor collaboration and co-ordination with sectors"*.

For the purposes of an IDP, tourism and infrastructure are both considered to be sectors. Sectors are areas where the local authorities have direct responsibility for delivery. However, not all sectors are equal. Decisions on whether to include a sector in an IDP are entirely at the discretion of the local authority. The exceptions to this are certain sectors, e.g. water and housing, which have specific legislation that compel municipalities to include these requirements in their strategic, budget and implementation plans.

All IDPs must contain infrastructure sector plans. Tourism sector plans will be included in an IDP only when this sector is an economic driver. It would, therefore, be vital for the inclusion of tourism infrastructure needs in the IDP. Tourists use the same infrastructure as citizens. Increased tourism activity does, however, place additional pressure on infrastructure and resource requirements. The most

recent example of this relates to the water shortages in the KwaZulu-Natal which negatively affected, and was affected by, tourism activity.

Within the context of local government planning, tourism is not a sector requiring a legislated IDP. A legislated IDP for tourism might not be desirable, since it would place a burden on municipalities because tourism development is not a feature in all municipalities. However, the lack of legislation is problematic in municipalities where tourism is a key focus, as projects at any sphere of government cannot be supported unless they are included in an IDP. Since there is no legal requirement to include tourism in IDP's, probably many tourism priorities are unaddressed.

The integration of tourism into the five-year IDPs are impacted upon by both the local authority officials' abilities to define and defend tourism's importance, and the community's understanding of, and support for, tourism as an economic driver. As tourism spans many industries, its infrastructure requirements are delivered through policy, planning and management frameworks that, often, do not explicitly address the requirements of tourism, or fall outside of the frameworks of tourism policy.

In 2019, President Ramaphosa introduced the concept of the District Development Model (DDM) which was subsequently adopted by Cabinet and the Presidential Infrastructure Co-ordination Committee. This approach does not replace the IDP but seeks, rather, to integrate planning by all three spheres of government in the 44 District Municipalities and eight Metropolitan Municipalities in South Africa. The DDM is anchored on the development of a "One Plan" for each District and Metro. The One Plan is an intergovernmental plan setting out a 25 - 30-year long-term strategic framework (consisting of short, medium and long-term actions) to guide investment and delivery in relation to each of the Districts and Metropolitans. It is critical that the One Plans are jointly developed and agreed to by all three spheres of government. The District / Metropolitan Municipality is

responsible for the development of One Plans in consultation with other sectors within all spheres of government. A need has been expressed to assess the quality of the One Plans submitted in order to determine the quality of both process undertaken and content of the final plans in order to offer structured feedback to stakeholders that will ensure continual improvements in this regard. The verdict is still out on whether the One Plans simplify or complicate integration within the already complex public sector planning system.

1.3.2 Challenges of integrating infrastructure and spatial planning

Todes, Karam, Klug and Malaza (2010) provide a history of the South Africa's spatial planning. Spatial planning during Apartheid was characterised by Masterplans that were fragmented and differentiated according to race. Post-apartheid spatial planning focussed on strategic spatial planning targeted at broad urban restructuring. The spatial frameworks of the late 1990s and early 2000s have been criticised for being too broad or vague; having had poor linkages to infrastructure developments and being unable of guiding and directing public and private sector developments (Harrison & Todes, 2013; Todes, 2008). Infrastructure development shapes spatial patterns but historically SDFs have neglected infrastructure networks but this is slowly changing as the critical role of infrastructure as a foundation for spatial development is being understood (Harrison & Todes, 2013).

The key weakness across most municipalities in South Africa is the lack of a structured manner in which to integrate infrastructure development and planning (Todes, Karam, Klug & Malaza, 2010). South African planning processes often produce excellent plans on paper. A critique of this approach is that plans on paper do not achieve the desired integration between sectors. There are serious challenges in securing intra-institutional co-operation, an example cited by Sim (2008 as cited in Todes, Karam, Klug & Malaza, 2010) is of eThekwini (Durban)

where it took almost two years to reach inter-departmental agreements on a spatial development planning process. Du Plessis (2014) concludes that in South Africa there is little integration between spatial development planning, infrastructure development and capital investment.

Harrison and Todes (2013) indicate that the larger metropolitan municipalities have been more successful at complementing the SDF with more detailed spatial planning which assists spatial decision making for example strategies to align infrastructure investment with spatial planning and transit-oriented development employed by the City of Johannesburg. Harrison & Todes (2013) advise firstly that strategic spatial planning must focus on infrastructure. Secondly, that SDFs must be much more detailed if they are to guide development and capital investment. Lastly, that more attention must be paid to sustainable land use by integrating environmental management and land development. One of the key challenges with integrating infrastructure planning in tourism may lie in this historical challenge in that tourism plans are often completed at the level of detail of a spatial development framework whereas infrastructure planning requires a much higher level of detail.

South Africa is not short on policies, strategies and legislation for integrated planning. Whilst all of these documents provide principles, in reality these documents do not provide any practical guidelines on exactly how to achieve alignment and integration of plans. The result is continued fragmented planning and a lack of integration. Government's most recent offering, the Integrated Urban Development Framework (2016) promises spatial transformation by creating more compact and connected cities and towns through amongst others integrated transport oriented development that informs investment in human settlements supported by integrated infrastructure network systems. The promise of the IUDF is yet to be fulfilled as pilot studies only commenced in 2018.

1.3.3 The case for infrastructure investment in tourism

Tourism is defined as "the activities of persons traveling to and staying in places outside their usual environment for not more than one (consecutive) year for leisure, business and other purposes" (UNWTO, 2016). It would therefore stand to reason that tourism infrastructure, for example a road or an airport, enables tourism in that it allows tourists to get to their destination of choice. In addition, tourism infrastructure leads to the physical place or space that tourists can enjoy, for example, a resort or a museum, being cases in point.

Tourism is widely recognised as a key economic sector which has demonstrated resilience during global economic turmoil (UNWTO, 2016). The tourism sector has been acknowledged as being the most affected sector by the COVID-19 pandemic (UNWTO, 2021) which in 2020-21 caused unprecedented disruption to travel and tourism following the global lockdown. Globally, up to 2019, tourism had demonstrated a higher and faster growth rate than any other sector (UNWTO, 2021). In 2019 tourism's contribution to the global GDP was USD 3.5 trillion or 4%. In 2020, the COVID-19 pandemic more than halved tourism's contribution to the global GDP to a reduced USD 1.6 trillion or 1.8%. A rebound, in 2021, to a global GDP contribution of USD 1.9 trillion or 2%, demonstrates the recovery of the sector, but it will be some time before the pre-pandemic contributions of the tourism sector are realised again.

Ironically, the global lockdown of 2020-21 to contain the spread of the COVID-19 pandemic, illustrated the real value of the global tourism sector. The socio-economic contribution of the tourism sector is immense, both at a global and national level (UNWTO, 2021; Statistics South Africa, 2021). Tourism creates jobs not only in the tourism sector, but also in related sectors (Wilde & Cox, 2008) and catalyses regional economic diversification (Beer, Maude & Pritchard as cited in Wilde & Cox, 2008). Good infrastructure provision is a key enabler of future

tourism growth. It is a critical component required for the delivery of the tourist experience.

Tourism infrastructure development takes place within the resource constraints of broader public infrastructure provision (Abdullah, Razak & Jaafar, 2014: 5). Given that public funds are limited it is critical that these are used to leverage private sector investment (Wong & Webb, 2014: 695). In fact, private sector funding of infrastructure is often not possible without public sector support, either through funding or the provision of guarantees (Ehlers, 2014). Mistilis (1999) argues that government policies often inhibit private sector investment into tourism infrastructure. Government is perceived, by the Private Sector, to be lacking discipline in decision-making, having too many different layers of government involved, and not adhering to deadlines. These issues have a detrimental effect on leveraging private sector involvement from public sector infrastructure spend. This observation in the literature is supported by evidence from South Africa as data indicates that in recent years the number of Public Private Partnerships (PPPs) has declined (Republic of South Africa Department of National Treasury, 2016). One reason cited for this is the delays and cancellations of various public sector projects. Another reason is the increasing difficulty in raising long-term debt financing (for the public sector partner) at affordable rates. Challenges in obtaining private sector funding for infrastructure also often relate to the lack of investable projects (Ehlers, 2014).

The research by Mistilis (1999) is supported fifteen years later by Tsekeris (2014: 263) who asserts that co-ordinated infrastructure development, which yields integrated policy at a national or regional level, is a critical factor in attracting more public and private sector investment; it is therefore critical to identify and address competing interests within and between sectors. In the highly competitive and expensive world of public infrastructure investment, an integrated policy framework is crucial in ensuring multi-sectoral development. Tourism is a multi-

sectoral activity (Rasul & Manandhar, 2009: 204) with all elements of infrastructure i.e. transport, hotels, restaurants, activities, attractions, having an impact on the sector. Public sector investment in infrastructure is critical to encourage further private sector money, since tourism is largely an activity driven by the private sector. In order for the tourism sector to thrive, the integration of tourism infrastructure requirements in the planning and development of other sectors is critical.

1.4 A summary of the theoretical background and academic literature gaps

An extensive literature review and identification of research gaps is contained in Chapter 2. This section provides the most relevant literature gaps in relation to the research.

A critical review of the literature reveals various studies which discuss the economic value of infrastructure development, the connection between infrastructure and tourism development, and the connection between infrastructure and spatial development. The literature emphasises a direct link between tourism growth, property development and infrastructure development (Beauregard, 1998: 231). Tourism growth leads to investments in privately and publicly owned infrastructure, such as the development of accommodation, roads and air transportation, which in turn benefit other economic sectors and citizens (Ben-Dalia, Collins-Kreiner & Churchman, 2013; WTTC, 2015). Tourism development requires infrastructure like roads, sanitation, harbours, potable water, electricity, safety services, hospitals, communication and accommodation (Kim, 2000 as cited in Imikan & Ekpo, 2012). Despite the recognition of this symbiotic relationship between infrastructure and tourism, deliberate planning for tourism infrastructure is notably absent in the literature.

Over the past forty years, two concepts, the Tourism Area Life Cycle (TALC) (Butler 1980) and Tourism Destination Competitiveness (TDC), (Ritchie & Crouch, 1993;

Heath, 1993; Dywer & Kim, 1993) have been a feature of tourism academic discourse. Although these models were not intended to resolve policy challenges, they have shaped the framing and solutions for tourism destination planning and policy problems. The challenge with these models is that they assume that the infrastructure required for tourism is already in place. The tourism literature makes the same assumption, and therefore does not explicitly address infrastructure planning for tourism, except in cases where infrastructure is being built specifically for tourism purposes for, example a resort or hotel development (Butler, 2010).

The literature shows that infrastructure planning follows historical patterns of silo planning which results in higher costs and risks (McLean, 2018; Neuman, 2012). Planners are challenged with managing planning processes, and infrastructure providers are challenged with engaging with complex planning frameworks (Watermeyer and Phillips, 2020; Hickford, et al., 2019). Although infrastructure integration is desirable, it is complicated to achieve as it involves many different actors, is context specific, and has different planning, governance and ownership frameworks (McLean, 2017; Art et al, 2016). There are also no clear models for infrastructure integration (McLean, 2017; Neuman, 2012).

There is a correlation between international (Hickford et al., 2019; McLean, 2017) and South African (SAICE, 2017) literature that the lack of capacity and poor governance of institutions responsible for infrastructure; and a lack of evidence based planning and decision making in the public sector results in poor service delivery. Further there is no shared vision between the public and private sectors for the delivery of public sector infrastructure (Hickford et al., 2019; Watermeyer and Phillips, 2020). Public sector initiatives to improve integrated infrastructure planning, co-ordination and delivery have largely proved to be unsuccessful (SAICE 2017; ARUP, 2013). Within this broader public sector infrastructure context, it is

no surprise that tourism infrastructure receives little attention. This makes the task of integrating tourism infrastructure more urgent.

The literature further points out that while South Africa has a strong policy and legislation environment to guide integrated planning, in reality these documents do not provide any practical guidelines on exactly how to achieve alignment and integration (Harrison & Todes, 2013; Todes, Karam, Klug & Malaza 2010; Du Plessis, 2014). This produces beautiful plans on paper that are difficult to translate into implementation. Plans on paper also do not achieve the desired integration between sectors (Todes, Karam, Klug & Malaza, 2010). The lack of a systematic and consistent guideline for how to achieve integration results in continued fragmented planning and a lack of integration. Importantly, the lack of integrated planning results in misalignment between infrastructure development and capital investment strategies (Du Plessis, 2014). This literature underlies this research study focus on integrated tourism infrastructure planning.

Infrastructure planning is a well-established component of the National Infrastructure Delivery Management System (IDMS - Republic of South Africa, 2015b). Moreover, at all spheres of government, there are infrastructure planning divisions or departments. However, a key observation of the public infrastructure planning activities and processes currently in practice is the apparent omission of tourism from the infrastructure planning process, despite the potential economic and social value of this sector. Infrastructure planning is also not a key component of current tourism planning practices.

Tourism planners have been concerned with tourism and not infrastructure. Likewise, infrastructure planners have been concerned with infrastructure and not tourism. It has been suggested (Dredge, 1999; Inskeep, 1988) that the challenge with the integration of tourism with other forms of planning is that tourism planning is seen as a separate specialisation, and tourism planners do not provide

the tourism language/framework that other professionals can understand. Tourism planning is still a struggle with most tourism destinations finding themselves between unplanned tourism development and haphazardly planned tourism development (Tosun & Jenkins, 1998). Tourism infrastructure development can, of course, proceed in the absence of planning but this results in inefficiencies in public sector planning and spending. Present tourism planning practices have not resulted in the geographic spread of the benefits of tourism (in particular to rural areas with high tourism potential), nor the maximisation of the use of the tourism infrastructure asset base (Rogerson, 2012; Rogerson, 2015). Planning and development of tourism infrastructure is therefore urgent and long overdue .

Although the literature review reveals several research gaps, the specific ones that this study will attempt to respond to are:

i. The identification and description of the improvements required in the current system of planning in order to support integrated tourism infrastructure planning
ii. The lack of an appropriate planning model for tourism infrastructure projects, given that the current system of infrastructure planning is misaligned with what happens in reality

1.5 Research Question

The research question that will be explored in this study is: "What are the key elements that are required to develop a model[7] for integrated tourism infrastructure planning undertaken by the South African public sector?"

[7] The model that is developed through this research will describe an approach for integrated tourism infrastructure planning at all levels of government. The research will suggest improvements to the current planning practice for tourism infrastructure planning. It is anticipated that the model will also suggest improvements for the spatial planning processes although this is not the direct focus of this research. The model will be tested by planning tourism infrastructure for a new tourism destination. The development of science centre and tourism facilities linked with the Square Kilometre Array (SKA) will be utilised to test the model.

1.6 Problem Statement

The South African public sector planning system is well established and complex. It has been criticised for producing excellent plans on paper that do not achieve the desired integration between sectors. Despite the planning process requiring inter-sectoral and inter-governmental coordination, planning still occurs in silos. The tourism sector currently does limited planning for tourism infrastructure and only where this infrastructure relates to a specific tourism product e.g. an attraction or a hotel. This is mainly related to budgetary constraints[8]. Consequently, the tourism sector by itself is unable to address all of the infrastructure needs of the sector as there are many other types of infrastructure required to support tourism. Tourism infrastructure needs can only be addressed through integrated planning. However, within the current context integrated planning for tourism infrastructure remains a challenge.

Whilst both tourism and infrastructure planning takes place within this planning system, a key observation is that the current system of planning does not result in integrated tourism infrastructure planning. The research problem examined in this study is that of integrated planning for tourism infrastructure. The current planning system used in South Africa provides principles for the integration and alignment of government's plans across various sectors i.e. integrated planning. However, a major critique of this system is that it results in fragmented planning and a lack of integration with a key challenge being the inability to achieve intra-institutional alignment and long-term co-operation.

A critical review of the research literature reveals no current study which generally examines infrastructure planning models in different economic sectors, and integrated infrastructure planning models specifically for the tourism sector.

[8] On average the National Tourism Budget is R 2 billion, roughly half of this is spent on marketing activities, with the balance spent on tourism development (this includes staff salaries. Typically the annual National Tourism budget for infrastructure is approximately R 200 million to service tourism infrastructure priorities across the entire country.

Therefore, an alternative model for integrated planning of tourism infrastructure is needed which takes both the context of planning for infrastructure and tourism into account.

1.7 Research Aim

The research aim is to develop and test a model for integrated tourism infrastructure planning undertaken by the South African public sector.

1.8 Specific Research Objectives

The specific research objectives of this study are to:

i. Undertake a systematic empirical understanding of the current processes used for tourism infrastructure public sector planning in South Africa to identify the integration challenges.
ii. Determine the key elements that are required to develop an integrated model for tourism infrastructure planning undertaken by the public sector in South Africa.
iii. Develop and test a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa.

1.9 Research Method

The Research Method is detailed in ,Chapter 3. The most appropriate philosophical underpinning for the research was Pragmatism. The research question was derived from a real life problem and the research was intended to provide practical solutions for the integration of tourism infrastructure planning to inform future public sector planning practices.

The research followed an inductive approach where data is collected and analysed in order to formulate theory. This approach enabled the researcher to develop

and test a model for integrated tourism infrastructure planning. Data to build this model was derived from desk top research, document reviews, key informant interviews, focus groups and the researcher's own extensive experience of public sector planning. The model is intended for use by South African public sector tourism and infrastructure planners. A total of 26 key informant interviews and three focus groups were completed as part of the primary data collection process.

A case study research design was used. The case study of infrastructure planning in South Africa is contained in Chapter 4. Given that tourism is a concurrent function in South Africa, a multiple case study strategy was followed. Three case studies were researched and developed each representing a national, provincial or local sphere of government as outlined below:

Case Study 1: South African National Parks (SANParks)

The SANParks case study was developed through a literature review and a key informant interview with a member of staff responsible for tourism and infrastructure development. The maintenance project that was rolled out in all National Parks by the Department of Tourism also provided a primary source of data for this case study.

Case study 2: Gauteng (Provincial and Local Government)

This case study was developed through a review of the current literature, provincial government infrastructure strategy and planning documents, local government IDP documentation, including infrastructure plans as well the Masterplans for the Cradle of Humankind and Dinokeng projects. Key informant interviews were conducted with tourism and planning officials at Provincial and Local Government. The case study also drew on the researchers' own experience of having been involved in tourism planning in the Province. This experience is derived from the development of two tourism geospatial projects, the Cradle of

Humankind and Dinokeng; the development of the Gauteng Tourism Infrastructure Strategy and Plan; and the Gauteng Tourism and Transport Plan.

Case study 3: Victoria and Alfred Waterfront, City of Cape Town (Local Government)

This case study looked at the development of the Victoria and Alfred Waterfront. Although this is mixed use development, it has become a key tourism attraction in Cape Town. This case study was developed through a key informant interview, review of the literature, provincial government strategy and planning documents and local government documentation.

The research population of the system of tourism and infrastructure planning in the country is comprised of Departments across various levels of government. The sample for semi-structured key informant interviews and focus groups included representatives from the following organisations:

i. National Treasury, specifically the team responsible for the Infrastructure Delivery Improvement Programme.
ii. National Department of Public Works and Infrastructure Development which manages the accommodation and infrastructure needs of national government.
iii. National Department of Transport which is a government department responsible for the regulation of transportation.
iv. National Department of Tourism tasked with developing national tourism policy and managing tourism destination development.
v. South African Local Government Association (SALGA) which is a voluntary organisation of all 257 local municipalities.
vi. National Department of Co-operative Governance (DCoG) supports the development and implementation of comprehensive infrastructure and maintenance plans in municipalities.
vii. Industrial Development Corporation (IDC) is an Agency of the Department of Trade and Industry which provides development funding to various industrial sectors including tourism.
viii. Gauteng Provincial Government, in particular officials involved in planning and tourism, as well as the Cradle of Humankind World Heritage Site.

ix. West Rand District Municipality and Mogale City Local Authority in particular tourism and Infrastructure officials.
x. Western Cape Provincial Government specifically tourism officials.
xi. City of Cape Town specifically tourism officials
xii. South African National Parks specifically officials responsible for infrastructure.
xiii. Development Bank of Southern Africa specifically infrastructure officials.
xiv. Private sector representatives for tourism from the Tourism Business Council of South Africa, V&A Waterfront, and the Karoo Development Foundation. An opportunity also arose to interview independent consultant who had been involved in several tourism projects across the country.

Thematic Analysis (TA) was utilised to analyse the data in this study. Simply put, TA derives concepts and meaning from data though examining, recording and reporting on themes or patterns (Kiger & Varpio, 2020, Braun & Clarke, 2006). The six step process for Reflexive TA Braun and Clarke (2006; 2019) was applied by the researcher to analyse the research data. The detailed data analysis is contained in Chapter 5.

1.10 Research Contribution

The value of the research is the contribution to integrated tourism infrastructure planning by the public sector in South Africa. Application of the research is intended to improve integrated tourism infrastructure planning. In the long term, improvements to integrated public sector tourism infrastructure planning should yield greater public sector investment, encourage further private sector investment and ultimately support the growth and competitiveness of the tourism sector. The practical, knowledge and theoretical contribution of this study is outlined below.

i. **Practical contribution**: By far the most valuable practical contribution of this research has been the application of the knowledge of my work as a tourism policy maker. The research has provided me with a new appreciation of the value and power of tourism planning. In drawing the links between tourism and infrastructure it is hoped that this research will assist planning by public sector tourism and infrastructure officials, in South Africa and elsewhere, by offering a model for integrated tourism infrastructure planning. The research also assists both the public and private sector to understand tourism and infrastructure processes better, in order for them to improve advocacy for planning and funding of tourism infrastructure for further development of the tourism sector.

ii. **Knowledge contribution**: The research provides a critical country-level assessment of South Africa's public sector tourism and infrastructure planning system, and outlines a model to improve integrated infrastructure planning. The model contributes towards addressing the gaps in a systematic and consistent guideline for integrated planning (Todes, Karam, Klug & Malaza, 2010) and a definition of tourism infrastructure (Mistilis, 1999; Tsekaris, 2014) and improved tourism planning that maximises the use of the tourism infrastructure asset base (Rogerson, 2012; Rogerson, 2015).

iii. **Theoretical Contribution**: The research provides a base for future studies to reflect on country-level integrated tourism infrastructure planning. model for infrastructure integration addressing a previous gap of no clear models for infrastructure integration (McLean, 2017; Neuman, 2012).

1.11 Scope of the study

The focus of this study is on supporting tourism infrastructure developed utilising public sector funding. In most instances, the primary purpose of these types of infrastructure is not tourism. Whilst the broader uses of public infrastructure are acknowledged, the primary focus of this study is tourism uses. While privately

funded tourism infrastructure supports further tourism growth and development, it is not the subject of this study. The reasons for this is two-fold. Firstly, the literature indicates that private sector investment into tourism takes place only in the context of prior public sector investment (Pearce & Butler, 2010; Scott, 2011; Airey & Ruhanen, 2013). Unless the policy and planning challenges related to public sector infrastructure are addressed, further private sector investment is unlikely. Secondly, several authors (Jurisch, Ikas, Wolf & Krcmar, 2013; Derseti & Rizzo, 2015) argue that the attempts to transfer private sector solutions into the public sector have largely been unsuccessful because the contexts of these organisations are different. Public organisations are bound by regulations and legislation which required the involvement of diverse stakeholder groupings, which results in general with the public sector having far less control over their processes than the private sector (Dennis, Carte & Kelly, 2003 as cited in Jurisch et al., 2013).

The study is also focused on the context of South African public sector planning and therefore its general applicability to other countries and contexts has not been tested. The study proposes a model for integrated tourism infrastructure planning. This could benefit from the integration of further elements, e.g. timelines and processes of planning for individual infrastructure sectors (e.g. water and electricity). Given the long term nature of infrastructure planning, only two elements of the model i.e. the National Tourism Spatial Development Framework and Regional Tourism Masterplans could be tested. Both these elements demonstrate usefulness for integrated tourism infrastructure planning. Although the third element, i.e. Tourism Infrastructure Investment Strategy and Plan could not be tested, the individual projects outlined in the Regional Tourism Masterplans provide a basis for support of the third element. Testing of the third element i.e. Tourism Investment Strategy and Plan, which reflects individual project level planning, is only possible with the passage of time. The element of People, i.e. those planning for tourism infrastructure and those benefiting from

tourism infrastructure, has not been fully concluded at the time of drafting this thesis. This element has emerged as being important for the model and future research on this element is recommended.

1.12 Conclusion

This chapter introduced the research. It commenced with a description of the real life problem and connected this with the existing body of knowledge which supports the research statement, question, aim and specific objectives. This chapter has highlighted the practical, knowledge and theoretical contribution that will be made by this research and concluded by presenting the limitations of the study. The next chapter will provide the background for the study offering the reader insights into the value of tourism and infrastructure, and the status quo of public sector planning for tourism and infrastructure in relation to the purpose of the research study.

Chapter 2

2 Locating the research within the literature

2.1 Introduction

This chapter presents an overview of existing insights and theories on the research topic, taken mostly from scholarly work on infrastructure, tourism, economics and planning. This chapter has two sections. The first section explores infrastructure. It commences with defining infrastructure broadly and tourism infrastructure specifically, providing a history of infrastructure planning and outlines infrastructure integration. It continues by explaining the importance of infrastructure for tourism, and presenting the South African infrastructure planning context. The second section explores tourism. It starts with broad trends in tourism research, details the history of tourism planning and discusses the literature on tourism and infrastructure. It details the Tourism Area Life Cycle (TALC) and various models of Tourism Destination Competitiveness (TDC), and provides the South African context of tourism planning. Finally, the conclusion of the chapter connects the specific research objectives with the existing body of theory.

2.2 What the literature says about infrastructure

2.2.1 Towards a definition of tourism infrastructure

> *"Infrastructure, then as now, always shaped and defined cities, both in fact and as icons. The London, Brooklyn and Golden Gate bridges; Victoria, Grand Central and Union stations; the Erie, Amstel, and Manchester canals, along with the canal networks that defined Amsterdam, Venice, Bangkok, Suzhou and host of other cities – the list goes on. It is difficult to understand cities without knowing the invaluable, and inescapable, contributions of infrastructure." Neuman, 2014:795*

Infrastructure in the literature is commonly understood as public infrastructure dealing with energy, transport, water, information technology and waste (Duran-Fernandez & Santos, 2014; Schürenberg-Frosch, 2014). This definition of infrastructure, while emphasising the central role of the public sector in infrastructure provision, has the unintended consequence of negating the role that the private sector could play in infrastructure provision (Mistillis, 1999). Conversely in tourism, the private sector is seen to be responsible for tourism developments, this perspective negates the critical role that the public sector plays in the provision of infrastructure on which tourism depends (Gunn; 1994).

Gunn's (1994) perspective is supported by Mistilis (1999) who argues that definitions of public infrastructure are too narrow and do not encompass aspects related to tourism infrastructure. The Economic Planning and Advisory (EPAC) Task Force (1994 as cited in Mistilis, 1999: 42) defined infrastructure as "fixed transport and communication facilities, production and transmission facilities for electricity, gas and water". Mistilis (1999) argues that although these categories of infrastructure are important and relevant for tourism, this definition creates challenges in addressing the public infrastructure needs for the tourism sector since it excludes key tourism assets such as stadiums, museums and convention centres. Clarity on the definition of tourism infrastructure is therefore an important starting point.

There are three broad approaches to defining tourism infrastructure in the literature. The first approach is to explicitly recognise the importance of infrastructure to tourism (Smith, 1993) in order to improve planning, development, management and delivery of tourism products. The second approach was to view tourism infrastructure through the lens of destination competitiveness (Crouch & Ritchie, 1999, 2003; Dwyer & Kim, 2003; Heath, 2003). In the second approach a distinction is often made between tourism superstructure (defined as infrastructure primarily serving the needs of tourists,

e.g. accommodation, restaurants, attractions such as theme parks, museums, art galleries, exhibition and convention centres) and base structure (defined as infrastructure which supports all economic and social activity e.g. transportation, sanitation, communication, potable water supply, health systems and safety). The third approach to defining tourism infrastructure is that an understanding of the components of a tourism product will enable an understanding of what constitutes tourism infrastructure (Van Den Berg et al., 1995 as cited in Ben-Dalia, Collins-Kreiner & Churchman, 2013; Haneef, 2017). All three approaches to defining tourism infrastructure are problematic. Implicit in the first and second approach is assumption that the infrastructure already exists and there is therefore no need to deliberately plan for or develop tourism infrastructure. The third approach is also problematic as it provides a partial picture of tourism infrastructure, also ignoring the operations and maintenance of tourism infrastructure.

Further in all three approaches there also appears to be a confusion between tourism product and tourism infrastructure as these terms are often used interchangeably. The use of the term "product" in reference to infrastructure that primarily serves the needs of tourists would appear to emanate from Butler's work on the Tourism Area Lifecyle. Butler (1980) viewed resorts as products, i.e. specifically created and adapted to meet the needs of a particular market segment, similarly to any other product, e.g. a motor vehicle. This notion of infrastructure for tourism being viewed as a product possible arises out of attempts to define tourism as an industrial sector as reinforced by Smith's (1993) "Generic Tourism Product" and Gunn's (1994: 6) *"tourism products are more perishable than manufactured products*". It is this researcher's view that regardless of the origins of the term "product" in reference to infrastructure primarily serving tourists, the use "product" does not necessarily assist public sector planning as this term is not readily understood by infrastructure planners.

Given that the public sector has grappled with a definition for tourism infrastructure, it is unsurprising, then, that the most useful definitions can be found in the public sector domain. A report for the Ontario Ministry of Tourism (2009) defines tourism infrastructure as infrastructure that "includes the tourism attractions themselves as well as the supporting system of signs, transportation network and tourism information structures." The New Zealand Tourism Planning Toolkit for local government includes under *"public sector infrastructure water supply, wastewater management, solid waste management and includes under private sector infrastructure accommodation, energy supply, public transport (bus, rentals, rail, air, sea), communication, including telecommunication, internet services, entertainment, food and beverage, shopping and other visitor business activities*" (Tourism Recreation Research and Education Centre, 2009).

The most widely used definition of tourism infrastructure comes from the Australian Transport and Tourism Forum (2008) "the supply chain of transport, social and environmental infrastructure that helps to create a tourism destination": the platform from which tourism product is delivered to tourists. It further outlines tourism Infrastructure as follows:

1. Critical visitor infrastructure
    - Demand Drivers must see icons or activities that incentivise travel and are typically provided by the State
    - Supporting visitor infrastructure might not form the main reason for travel, but these amenities impact heavily on the tourism experience
2. Transport Infrastructure – provides visitor access to and within a destination
3. Social Infrastructure – includes, amongst others, accommodation, events, exhibitions, museums, and stadia
4. Environmental Infrastructure – allows visitors to enjoy nature and includes environmental estate of parks, reserves, World Heritage Sites

5. Collaborative Infrastructure – the relationships and institutions between public and private sector actors who develop and market tourism destinations and distribute tourism products

For this study, the definition above, and the following broad elements of state developed infrastructure, were initially used as the basis for further exploration:

1. Transport Infrastructure – enables access; includes airports, roads, rail, public transport
2. Social Infrastructure and Environmental Infrastructure as described above
3. Supporting infrastructure i.e. bulk infrastructure (electricity, water, sanitation), urban infrastructure (signage, parking, communication), medical, safety and security.

In summary, the absence of a common or consistent definition of tourism infrastructure is problematic on two levels. Firstly, it creates challenges in addressing the public infrastructure needs for the tourism sector as current definitions of infrastructure excludes key tourism assets (Mistilis, 1999). Secondly, the infrastructure definition which only encompasses a role for the public sector, negates the role that the private sector has to play in tourism infrastructure development (Mistilis, 1999; Tsekeris, 2014).

Tourism infrastructure is one of the key research concepts. However, there is no common or consistent definition of tourism infrastructure in the literature (Gauteng Provincial Government, 2012b). There is also no clear distinction between the roles and responsibilities of the public and private sector in the development of tourism infrastructure. A significant gap in the literature relates to the lack of a common understanding or definition of tourism infrastructure.

Given the significance of tourism infrastructure to destination competitiveness it is critical to attract more public and private sector investment for tourism

infrastructure. This research study investigated a definition of tourism infrastructure for use in the South African public sector. This definition will be reported on later in Chapter 5 detailing the research findings.

2.2.2 The economic value of infrastructure

Investment in infrastructure generally (specifically transport, water, energy and communications infrastructure) is seen as a crucial pre-requisite for economic growth (Schürenberg-Frosch, 2014: 327). According to Duran-Fernandez and Santos (2014) the importance of public infrastructure investment to economic activity is widely acknowledged in the economic literature, although there is currently debate about the extent of the direct causal link between these two phenomena. Surprisingly, the impact of infrastructure on economic development was first researched only in 1989 by Aschauer (Duran-Fernandez & Santos, 2014; Gramlich, 1994; Schürenberg-Frosch, 2014). Gramlich (1994) argues that while much econometric research focuses on whether there is sufficient public capital investment in infrastructure, the more important research question is about what changes are required to public infrastructure investment policy. The developing world, especially Africa, has poorly maintained infrastructure in comparison with middle and high income countries (Schürenberg-Frosch, 2014: 327). The importance of investment in infrastructure as an economic driver is very clearly emphasised in the literature. Of specific interest for this research study, however, is to establish what changes are required for public capital investment decisions as they relate to tourism infrastructure.

Watermeyer (2013) indicates that public infrastructure, which is central to the economy of a country, has little inherent value, but rather creates value through the economic and social activities it supports. In economic literature, it is widely accepted that infrastructure enables economic growth (Duran-Fernandez & Santos, 2014; Schürenberg-Frosch, 2014), and that a public infrastructure investment policy is critical to informing infrastructure investment (Tsekeris,

2014). Given limited public funds it is critical that these are used to leverage private sector investment (Wong & Webb, 2014: 695). The literature also draws a positive correlation between public sector spend and private sector investment. Co-ordinated infrastructure development, which yields integrated policy at a national or regional level, is a critical factor for attracting more public and private sector investment; it is therefore critical to identify and address competing interests within and between sectors (Tsekeris, 2014: 263). The critical role that infrastructure plays in economic growth is widely accepted by governments. This is evidenced in government spend in South Africa being directed to infrastructure through the 18 Strategic Integrated Projects (SIPs).

The converse is also true: lack of infrastructure inhibits economic growth. Gaal and Afrah (2017) found that the lack of infrastructure retarded economic growth, contributed to poor living standards, and encouraged unemployment. Delayed materialisation of infrastructure projects poses large social and economic costs, and in emerging markets the lack of infrastructure impedes economic progress (Ehlers, 2014). In Africa poor infrastructure undermines efforts to reduce poverty by stunting economic growth (Jerome, 2011). Jerome (2011) further states that the cost of addressing infrastructure needs for Africa is about $ 93 billion per annum, roughly a third of which is required for maintenance needs. Calderon et al. (2018) concur that infrastructure development can help to reduce poverty and should become a priority for the continent. In all dimensions of infrastructure performance, Sub-Saharan Africa ranks the lowest of all developing countries. Calderon et al. (2018) maintain that public sector funding is insufficient to address the large quality, quantity and access gaps in telecommunications, water and sanitation, electricity and transportation infrastructure. They further recommend that there should be an improvement in the efficiency of public sector infrastructure spend in order to realise multiplier effects of investment and economic growth.

There is general agreement that the challenges related to public sector infrastructure is increasing demand in the face of ageing/poorly maintained infrastructure which needs to be refurbished or replaced, and to address challenges regarding sustainability and technological advances (Hickford et. al., 2019; Watermeyer, 2013). In summary, while infrastructure is integral to economic growth and social well-being, the condition of infrastructure globally is deteriorating, especially in Africa where there is lack of investment in maintenance and new capital projects. Infrastructure is expensive, and funding remains a concern, but in order for cities and countries to remain competitive, continued investment in infrastructure is essential.

2.2.3 Infrastructure planning

Planning is essential for co-ordination and delivery of both new and existing infrastructure (Hickford et al., 2019). Although informal infrastructure survives without planning, it perpetuates inequities and is difficult to correct (Newman, 2016). Infrastructure contributes to equitable and just cities and societies by providing access to services (Graham and Marvin, 2001 as cited in Neuman, 2014). Planning serves the purposes of providing a strategic overview of infrastructure needs (Hickford et al., 2019). Further, planning assists in regulating and funding infrastructure development and management. The process of infrastructure planning also engages various stakeholders and co-ordinates across political boundaries and infrastructure sectors.

Urban infrastructure has a long lifespan and therefore impacts the environment over a long timeframe (Malekpour, Brown & de Haan, 2015). In an insightful article Malekpour, Brown and de Haan (2015) detail a history of the literature from 1900 to 2013 on the strategic planning of public infrastructure. The findings reveal the transformation over time of academic paradigms for strategic infrastructure planning from optimisation to sustainability. The study highlights the gap in the knowledge about the attributes of sustainability in urban infrastructure planning

in academic discourse. Literature on planning increasingly stresses the importance of linking infrastructure planning with land use and environmental planning, for sustainability (Busscher, Tillema & Arts, 2015).

Newman (2016) traces the history of infrastructure planning describing four phases as outlined below:

Phase 1 - Modernist period from 1940's to 1980's

This is described as dominant planning paradigm which provided certainty in terms of planning and infrastructure as society emerged from the industrialisation period. Infrastructure planning focussed on providing space for the connection by road of expanding residential, industrial and commercial areas. Transport planning was central, and land use function was separate. Population predications informed projected traffic[9] and engineering (for water, solid waste, sewerage) modelling; rules and legislations were created for town planning, land use and development footprints.

Phase 2 - Postmodernist period from 1980's to 2000

This era is described as providing uncertainty in terms of planning and infrastructure. A key concern then was the dependence on vehicles, and the loss of green and recreational spaces. Conflicting ideas of planning and infrastructure resulted in the development of vastly different types of cities in the same country. Many European cities took a pragmatic approach and built up their original city designs rather than getting rid of their highways and road networks. Canada followed a similar pattern to European cities. In the US divided opinions resulted in New York, for example, preventing the development of highways, with Detroit and Los Angeles embracing highways. Australia followed the US pattern with

[9] The Four Step Model for transport was espoused in this period. It predicted car traffic using population and wealth projections and provided simple rules for the construction of high capacity roads that connected points in a straight line (Newman, 2016)

Adelaide keeping its green space in the central city rather than developing a highway, and Perth building massive highways and removing the rail system.

Phase 3: Emerging sustainability period from 2000s – 2016

This planning and infrastructure period was defined by residents' need for sustainable cities. It is described as a period of conflict between modernists (often viewed as economists) in favour of progress, and post modernists (often viewed as environmentalists), seen to be anti-progress. This conflict was resolved by the United Nations Commission on Environment and Development (1987 as cited in Newman, 2016) who stated that all development must be sustainable. This time created the idea of a triple bottom line, i.e. social, environmental and economic sustainability; however in the beginning the concept of sustainability was unclear. The planning process became convoluted as governments strove to merge the clear development rules of the modernist period with environmental and social concerns. From a planning and infrastructure perspective, the focus was on developing better public transport, and the use of non-motorised transport, i.e. walking and cycling. There were attempts to merge the transport and land use functions but they were largely unsuccessful as the conflict between different views of modernism continued. Water infrastructure appears to have been successful mainly because concerns about water scarcity merged well with the concept of sustainability, similarly for solid waste. Energy was slowly moving to less waste and using renewable sources in the developed world. Infrastructure planning was no longer certain. Transport and land use planning remained the same as the modernist period, but changes began, driven by decreasing use of cars replaced by public transport, walking and cycling.

Phase 4 - Disruptive innovation period from 2016 onwards

The belief is that consumers will purchase an innovation if it meets their needs, even if it is more expensive than a mainstream market product (Christensen 1995 as cited in Newman, 1996). Thus that the consumer purchases renewable energy

innovations even though they are initially more expensive than traditional energy, but eventually the idea of the centralised provision and distribution of old energy will give way to central energy grids. Transport systems are moving to intermodal forms of transport, with the use of rail as backbone, supported by public transport, walking and cycling. This pattern is emerging in India and China which have 50 and 81 cities, respectively, with metro rail systems completed or in progress, to deal with traffic congestion caused by large populations. Rail is also a preferred option in the Middle East, Africa and Latin America. Urban rail systems are viewed as "disruptive" innovations as they are more labour intensive, competitive and are of higher quality and have greater capacity than buses. Urban rail also supports the densification of cities, which is an urgent priority given population expansion, and includes mixed land uses with the creation of medium density transit corridors and low density suburbs. Newman (1996) predicts that there will be three types of urban forms that planning and infrastructure will be required for, i.e. the car city, transit city and walking city. Water, waste and energy infrastructure planning and implementation will be based on renewable, smart technologies built on the environmental principles of re-use, reduce and recycling; models for planning and infrastructure will need to produce fit-for-purpose solutions.

Neuman (2012) highlights that the planning of cities and critical infrastructure are closely linked. Historically, critical infrastructure interventions such as aqueducts, water separation/sewerage and streets have supported the development of early cities such as in the Indus Valley and Rome. Later critical infrastructure interventions in the form of roads, highways and airports have shaped cities such as Paris and Barcelona. Infrastructure supports sustainable cities but proper planning supports sustainable infrastructure. Neuman (2012) describes sustainability as a process that keeps a place, community or city alive over time, without exceeding the natural limits of said processes. Current infrastructure planning processes follow very individual and siloed discipline planning, e.g. engineers, urban planners, finance which often results in higher costs and higher

risks. Neuman (2012) proposes a lifecycle/demand capacity approach for linking urban and infrastructure networks (e.g. electric power grids, city street grids, water) planning. This lifecycle planning covers the full cycle of infrastructure planning, from demand assessment, development, operations to evaluation, and involves all technical disciplines, politicians and citizens. Neuman (2012) further proposes the conversion of this sequence into a full cycle by using the final evaluation stage to initiate the next iteration of demand assessment, thereby repeating the cycle. This lifecycle approach is expected to have very long term horizons in excess of fifty years. The lifecycle/demand capacity planning approach involves two steps 1) demand capacity analysis and 2) life cycle analysis. The demand capacity analysis is completed for all infrastructure systems in an identified area at a specific future time for the factors of ecological capacity, social capacity and economic capacity. The second step of life cycle analysis views all elements in the first step from a long-term perspective while integrating natural systems (i.e. environment), infrastructure systems and urban systems (i.e. nodes). Neuman's (2012) model may be difficult to implement , because infrastructure planning cannot be divorced from the influence of political, cultural and social changes which shift in much less time.

2.2.4 Integrating infrastructure

There is a growing call for the integration of various forms of infrastructure (Hickford et al., 2019; McLean, 2017). Such integration is expected to be able to support efficiency of systems, maximise investment returns, minimise technological renewal and replacement costs, and improve service delivery to citizens (McLean, 2017). McLean (2017) argues that while debates about infrastructure integration have been prevalent since the advent of large infrastructure networks, the matter has recently grown in importance due to increasing concerns over population growth, climate change and resource sustainability. While integration is viewed as important, there is no clear

understanding of what infrastructure integration means in practice (McLean, 2017; 2018).

McLean (2017) offers five overlapping forms of infrastructure integration as described below:

i. Organisational integration

This encompasses management, regulation, ownership and governance of infrastructures. Ownership and governance models can take various forms. On one side of the continuum would be the creation of a single entity to manage all infrastructure for a country or city. On the end of the continuum would be that various infrastructures are viewed as , but interdependent, component parts of a system-of-systems with strong central organisations fostering partnerships between different infrastructure providers and creating an overarching vision for partners to achieve, e.g. through the development of Masterplans. Silo infrastructure planning can continue, but the problems associated with this could be overcome through collaboration between various technical groups and joint working groups of infrastructure providers, government entities and consumer groups.

ii. Technological integration

Innovative technology can be used to integrate infrastructure, e.g. hydro-electric plants generate electricity and direct water supply networks; telecommunications and electricity networks can be joined by smart grids. Technological innovations can both help and splinter infrastructures, often as result of tensions between national policies and local political priorities and realities.

iii. Sectoral integration

This involves integration within individual sectors, e.g. service delivery of water involves local and national actors and between infrastructure sectors, e.g. between water and energy. An example of integration within individual sectors is enabling the production and consumption of energy by citizens, recently referred to as “inverse”, as it provides opportunities for decentralising large technical

systems. This form of integration shifts service provision governance from a top down to bottom up approach. Inverse infrastructures remain independent at an operational and management level, similar to a system-of-systems approach; collaboration is required for voluntary development for decentralised systems control. Although this form of integration is desirable, it is acknowledged that it might be difficult to integrate small isolated systems into wider networks that were not originally designed for this purpose.

iv. Geographic integration

This form of integration allows cross-border infrastructure trade and management between regions, individual countries, across countries, within and between continents. Geographic integration includes the use of spatial plans and land use planning tools to govern infrastructure development zones and corridors.

v. Social integration

The preceding forms of integration do not include the public arena. Social integration allows for members of the public to engage with the infrastructure "black box". The use of "One stop shops" as a government interface with citizens is an example of the interface of citizens with infrastructure. Another example is to sell services rather than products . A third example is a focus on access to, rather than ownership of, infrastructures similar to the growth of the "sharing economy".

However, McLean (2018) notes that the integration of various infrastructures may be more complicated in practice, as integration is affected by various factors at a national and local level. These factors include political will to unbundle existing governance and ownership arrangements and to act on the interventions required; the current debate on energy utilities and renewable energy is a case in point. Another factor is the extent of partnership between the public and private sector in the delivery of infrastructure. While this partnership is desirable to enhance the capacity of the state and share costs for infrastructure delivery, there are inherent tensions in the relationship between the public and private sector. The public sector is driven by public-good interests, whereas the private sector is

driven by commercial interests which can result in short-term gains at the expense of more beneficial but more complex long-term solutions. Even in highly deregulated and decentralised environments government entities are still bound by complex regulatory frameworks, which also complicate the integration of infrastructure.

The integration of infrastructure is currently being explored by various regions and countries. Australia's strategy is to ensure the seamless integration of infrastructure and land use (ARUP, 2013). This involves the integration of policy and planning functions across all levels of government, involving innovative infrastructure solutions, e.g. production of energy from waste, and multimodal transport. Infrastructure Australia has also been created as an independent statutory body, that guides important national infrastructure priorities and investment in order to deliver long-term strategic infrastructure plans which are free of political, geographic or modal political biases. The Australian Strategy for integrated infrastructure made five recommendations:

- Benchmarking and assessing actual performance and improvements at both an infrastructure sector (i.e. electricity, water, transport, waste) and citywide (i.e. sustainability and live-ability level.
- Adopt whole-of-government seamless integrated land-use and infrastructure planning, through the creation of a single national plan and/or agency to manage infrastructure delivery
- Infrastructure delivery must direct demand to support sustainability and maximise the value of existing investment.
- Implement progressive infrastructure market reforms to support competition; address existing infrastructure capacity constraints and anticipate future growth
- Develop an innovative, transparent, streamlined procurement framework to harness fully private sector experience, skills and capital in solving infrastructure challenges.

In Europe the Networking for Urban Vitality (NUVit) research programme explores how to achieve a smart, green, integrated transport system for future infrastructure design, development and management (Arts, Hanekamp, Linssen & Snippe, 2016). The research paper includes best-practice country case studies from the Netherlands, Sweden, Estonia and Belgium. This research explains that while the integration of land use/spatial and transport infrastructure planning is crucial for sustainable planning outcomes, these two forms of planning are currently separated (Arts et. al, 2016). Transport infrastructure planning deals with limited focus on roads, water and rail, and has a minimalistic approach to public consultation and impact mitigation; spatial planners pay no attention to mobility aspects of development plans. Spatial and transport planning also has separate policy frameworks, legislation and funding. To address these integration challenges Arts et al. (2016) propose a transport land-use cycle using the NuVit Conceptual Model. This model contains six dimensions of mobility, land use and infrastructure planning as follows:

1. Spatial dimension: synergises accessibility through, for example, transit oriented development, and multimodal corridors
2. Network dimension: optimises international, national, metropolitan and local multimodal networks
3. Time dimension: links full lifecycle of infrastructure and places
4. Value dimension: problem solving and using models to assess value in combined infrastructure and spatial development projects
5. Institutional dimension: comparing and analysing institutional and governance frameworks
6. Implementation dimension: analysis of the implementation framework

Hickford et al. (2019) present findings for integrated infrastructure planning in city regions and counties in Scotland and England. Their research is framed by five principles of good infrastructure planning. These five principles, research findings

and recommendations to the current system of infrastructure planning are summarised in Table 3 below.

Table 3 Five principles of good infrastructure planning – research findings and recommendations

Research Findings	Recommendations for improvement sot the current system of infrastructure planning
"Principle 1: A shared vision of place with clear objectives"	
Local authorities appreciate the importance of common planning base and vision to anchor infrastructure development but there is no evidence of best practices or policies to develop and implement a shared vision. The root cause of this challenge lies in government bureaucracy which results in inefficient communication through multiple layers of government accountability. Another cause is the lack of a common project management direction	National Government should provide strategic leadership in spatial planning and review overlapping boundaries of accountability. Local Government should finalise their plans for their areas with an understand of the broader nation-wide plan. They should include stakeholders in the planning process from the on-set. Further, they need to assess both statutory and non-statutory planning processes and improve upon these. Infrastructure providers must be included in thinking about long-term place plans. The incentives for infrastructure providers to be engaged in this manner need to be formulated.
Principle 2: Specific infrastructure priorities identified to achieve the shared vision, aligned to funding sources"	
Local Authorities have no confidence in their ability to correctly identify infrastructure targets. There is no sustainable funding model for infrastructure development. Procurement processes in government often prevent good infrastructure planning as infrastructure providers are driven by short term gains rather than long term vision. This is particularly a challenge where infrastructure delivery at local government is dependent on funding	In order to align infrastructure planning to funding sources, central govern needs to formulate sustainable funding policy. Local government needs to have more realistic place and evidence based planning rather than reactive delivery. Government procurement systems need to reformed in order to allow early involvement from infrastructure providers so that they can invest in longer term planning rather than merely trying to derive maximum short term benefits.

Research Findings	Recommendations for improvement sot the current system of infrastructure planning
from developers in light of decreasing public funding.	
"Principle 3: Effective and early engagement to align planning and delivery"	
Local authorities rely on delivery through third parties but there is no structured way to engage with various parties. Service providers rarely operate within the exact administrative boundaries of the local authority area. Regulatory frameworks do not at present consider long term issues of place/long term planning cycles	National reforms to the regulatory environment are required in order to enable early engagement between local authorities and service provider to ensure more effective land use and infrastructure planning. National Government needs to provide leadership and formulate policies that allow departments and agencies tasked with regulation to properly support infrastructure planning. Local government must provide/support a team focussed solely on the co-ordination of infrastructure delivery. Again, incentives need to formulated for early service provider involvement
"Principle 4: Capacity, knowledge and resources"	
Infrastructure planning is not a core activity by itself but rather included in other planning priorities. Local authorities have no confidence in their capacity, skills, information and funding for effective infrastructure planning. There is also the lack of intentional, sustained, centralised knowledge and data sharing.	Professional or statutory bodies should work with training and education institutions to review the skills and competencies required to support infrastructure planning as a core competency through a Continuous Professional Development programme. All organisation involved in infrastructure planning need to ensure competency based appointments. An open access data hub should be created to gather data and case studies on best practice infrastructure planning to build the knowledge resource base.
"Principle 5: Continuous learning and dissemination"	
Although there is a strong desire for knowledge and practical skills on good infrastructure planning, best practice examples are not widespread and are project or site specific rather than	Infrastructure planning requires champions at a national level who are committed to sharing best practice. Local infrastructure planning associations that promote and disseminate research

Research Findings	Recommendations for improvement sot the current system of infrastructure planning
examples of strategic, coordinated infrastructure planning.	on effective infrastructure planning models, policies, strategies, tools, techniques should be established/promoted.

(Source: Hickford et al., 2019)

Hickford et al. (2019) recommend the following as actions to support each of the five principles of good infrastructure planning:

1. **"*Principle 1: A shared vision of place with clear objectives*"**: A shared vision as a critical success factor should take a long view of planning, to ensure realisation of the vision; see infrastructure as part of the solution to service delivery accounting for community priorities, requirements and delivering the right development for the right place.
2. ***Principle 2: Specific infrastructure priorities identified to achieve the shared vision, aligned to funding sources"****:* The identification of infrastructure priorities supports effective delivery. The right infrastructure supports sustainable growth, quality of life, addresses social, environmental and economic imperatives growth and is future proof. This approach to the identification of infrastructure funding priorities is responsive to technological, social and environmental changes; allows for a predictable cycle of infrastructure planning, funding and delivery; delivers local economic development; improves land values and builds investor confidence.
3. ***"Principle 3: Effective and early engagement to align planning and delivery"****: E*arly engagement facilitates the right team in place at the right stage to ensure focussed delivery. This promotes multi-stakeholder collaboration; fosters trusting relationships, develops shared goals through joint planning and implementation which ultimately aligns planning, investment and development by the public and private sectors.

4. ***"Principle 4: Capacity, knowledge and resources"****:* Infrastructure must a high priority and made more visible, in order to maximise limited financial and human resources through the sharing of data and research of good infrastructure policy, strategy, planning and delivery tools, techniques and case studies.
5. ***"Principle 5: Continuous learning and dissemination"****:* Understand, share and replicate best practice integrated infrastructure planning.

The system-of-systems approach to infrastructure planning research by a multi-disciplinary team at the UK Infrastructure Transition Research Consortium (ITRC) is explored in a series of useful articles by various authors (Hall, Henriques, Hickford & Nicholls, 2013; Hall et al., 2014; Otto et al. 2014; Hickford et al., 2015). Hall, Henriques, Hickford and Nicholls (2013) present a cross-sectoral model for long term planning and policy development of public infrastructure. Cross-sectoral refers, in this instance, to the infrastructure sectors of water supply, transport and energy, technology and information communication. Their paper argues that current models for infrastructure planning are unable to address the complexities of cross-sectoral interdependencies as well as the uncertain future demands and technological advances. The authors borrow from Jamshidi (2008 as cited in Hall et al., 2013: 250) and utilise the following definition of their model: "system-of-systems are large-scale, integrated, complex systems that can operate independently but are networked together for a common goal". The paper advocates an infrastructure planning approach that focuses on quality service provision rather than the mode of service provision. The next stage of analysis is the inclusion of spatial analysis. This research is further explored in Hall et al. (2014), where scenario analysis helps policy makers to understand the implications of various policies under various future scenarios as opposed to current frameworks, which look at how to optimise performance within a set range of parameters, e.g. costs. What is clear from this series of papers is that as a result of the complexity of infrastructure planning, historically infrastructure

planners have planned in silos for individual infrastructure sectors of water supply, transport and energy, technology and information communication, and are now beginning to see the importance of integrated planning between these infrastructure sectors. The conceptual leap, therefore, for infrastructure planners to consider an economic cross-sectoral analysis is a bridge too far. A conversation about planning for infrastructure for energy, transport, water supply, information communication and technology to accommodate the needs of economic sectors like tourism, education and health is very distant in the mind of infrastructure planners. This literature has important implications for moderating the original ambitions of this research study which was intended to create a public sector model for integrating tourism into broader infrastructure planning; but given the current progress of academic discourse, this goal is not realistic.

In summary, the literature on infrastructure planning indicates that academic conversations on strategic public infrastructure planning have shifted from optimisation to sustainability (Malekpour, Brown & de Haan, 2015). Planning provides a strategic overview of infrastructure needs and assists in regulating and funding infrastructure development and management (Hickford, et al., 2019). Infrastructure planning is complex; planners are challenged with managing planning processes and infrastructure providers are challenged with engaging with complex planning frameworks. Infrastructure planning follows historical patterns of silo planning which results in higher costs and risks (McLean, 2018; Neuman, 2012). There are no clear models for infrastructure integration (McLean, 2017). Although infrastructure integration is desirable, it is difficult to achieve because infrastructure planning involves many different actors, is context specific, and has different planning, governance and ownership frameworks (McLean, 2017; Art et al, 2016). As a result of how infrastructure planning has evolved there are gaps in integrating infrastructure, land use and spatial planning (Busscher, Tillema & Arts, 2015; Neuman, 2012).

2.2.5 The importance of infrastructure for tourism

The COVID-19 pandemic caused unprecedented disruption to tourism following a global lockdown in 2020/21 (UNWTO, 2021). Within this context, tourism destinations are competing globally for market share in order to support the country's recovery of the tourism sector. Wang and Liu (2020) in addition to confirming the significance of the tourism sector to economic growth in developing countries, also found that ICT, port and road infrastructure, tourism safety, and a sustainable environment contributed significantly to tourism competitiveness. Wang and Liu (2020) also found that the converse is true: in developing countries with low economic growth the lack of investment in communication, airport roads and other infrastructure hindered tourism competitiveness.

Nyasha, Odhiambo and Asongu (2021) recommended further investment in tourism infrastructure development as, firstly, it grows the tourism sector and secondly, contributes to the development of other economic sectors, e.g. transport. However, despite tourism infrastructure being identified as an important attribute which affects the competitiveness of tourism destinations, no common or consistent definition of tourism infrastructure exists. This presents a challenge for public sector policy and implementation interventions.

Some practical examples of importance of infrastructure for tourism are now discussed. First is an anecdote shared by Professor Wall with the researcher (email correspondence dated 14 May 2022). A number of years ago, Professor Wall ran a four-day course on infrastructure asset management in the Northern Cape. The training course had roughly 40 participants from local government across the Northern Cape and beyond and was hosted at the Protea Hotel next to the Big Hole in Kimberley. On the first day of the course, something in the municipal system had failed, and all of Kimberley was without water. The Hotel Management however, had "a standing arrangement" with the fire department to deliver water

to the hotel as this was not the first instance of the municipal system failing. This event provided an excellent case study for the course, and participants tracked the developments throughout the week; the water supply had not been restored when participants left four days later. The hotel had realised that they could do nothing about the risk of municipal water system failure, but they could reduce the consequences for their operations and guests. The hotel had arranged with the fire department, which fetched water from the treatment works and brought it to the hotel. Professor Wall described this as "the best example of risk and consequence management in the infrastructure field" that he had encountered in his career.

A recent South African Human Rights Commission (SAHRC) Report (February 2021) damned the Emfuleni Municipality for its inability to provide water services and the lack of maintenance of the water sanitation infrastructure, which in 2018 resulted in sewage pollution of the Vaal and in the streets and homes of persons living in the municipal area, over a period of more than five years. The Municipality attributed the sewage pollution to its failing wastewater infrastructure (SAHRC, 2021). The Vaal River is the third longest river, and a critical water source in South Africa[10], providing water to five of the nine Provinces in South Africa and the Bloemhof Dam, which supports domestic and commercial use by 19 million people (SAHRC, 2021). The Vaal River supports tourism and recreational activities and the sewage pollution impacted on both current and future tourism activities. The Yellowfish, endemic to the Vaal, was under threat of extinction from the sewage pollution (SAHRC, 2021). In South Africa, revenue from the angling industry is estimated at around R 1,2 billion per annum; prior to the sewage spillage bait and fly fishing were popular tourism and recreational activities along the Vaal (SAHRC, 2021). A separate study by Brand et al. (2009) concluded that on the Vaal River the estimated value of the fishing industry,

[10]SAVE, The Importance of the Vaal. Available at: http://www.save.org.za/about-us/#saveimportance.

dependent on the Yellowfish, was just over R133 million per season. Of this total economic value R 41.4 million would be spent on travel, R 75.5 million on accommodation and R14.6 million on equipment. The sewage spill in the Vaal, caused by failing infrastructure, resulted in the decline of tourism arrivals and tourism spend, impacting on the wider economy (SAHRC, 2021). The failure in infrastructure, though, was more wide-reaching than just the immediate impacts. Blom (2018) reported that large projects such as the R11bn River City, a mixed-use development comprising residential, commercial and tourism components, would have problems finding finance, due to the negative impact of the sewage spillage which reduce the attractiveness of the Vaal River as an area for investment.

Tourism along the KwaZulu-Natal (KZN) coastline has similarly been struggling as a result of infrastructure failures. For several years now, the unreliable water supply to portions of the KZN South Coast has resulted in cancelled bookings. Businesslive (2021) in November 2021 reported that raw sewage had leaked into Durban harbour. The eThekwini Metropolitan Municipality attributed this spill to damage caused to the largest pumping station as result of load-shedding implemented by Eskom. The Transnet National Ports Authority (TNPA) immediately banned fishing and diving in the harbour area but the nearby beaches were also affected, threatening the profitability of tourism just ahead of the peak December festive season. This was not the first failure of the sewerage reticulation system. In June 2021 waste water spilled into the tourist hub of Umhlanga as a result of a malfunctioning pump station. In May 2019 high levels of E.coli were discovered in the same area, and the TNPA banned diving, fishing and other marine activities (Businesslive, 2021).

In April 2022 tourism in KwaZulu Natal suffered a further blow, this time as result of the destruction caused to infrastructure by severe flooding. Araújo et al. (2019) describe the impact of flooding on tourism as including damage of facilities and infrastructure, substantial rebuilding costs and a decline in tourists and revenue.

Over the 2022 Easter season, KZN had projected 366 503 arrivals and spend of R1.2 billion, with an estimated 256 552 arrivals and spend of R880 million for the Easter long weekend itself[11]. Hotel accommodation occupancy for KZN was at 54,4% over the Easter period with an estimated 236 630 tourists and a revenue of R 743 million. In 2022 Durban experienced 16% of booking cancellations of, which translates into a loss of 20% or 30 000 tourists, R 30 million in direct spend, R 74 million lost GDP contribution and 155 temporary jobs lost. The economic impact of the floods is yet to be fully understood but the costs of repairing public tourism infrastructure is conservatively estimated at around R 131 million; the loss of tourists and tourism revenue is yet to be tallied.

The UK's Telegraph newspaper recently published the results of an annual reader survey and views from a panel of travel writers, in which it named Cape Town the third greatest city on earth after Barcelona and Sydney (Timeslive, 2022). Sadly, the city has not been immune to the impact of natural disasters, in this instance the severe droughts of 2015 and 2018 which will be used here as another proxy example of challenges with water infrastructure. The impact of the drought was a decline in tourist arrivals, low accommodation occupancy levels and reduced consumer spending, which resulted in a revenue loss of between R 723 million and R 1.7 billion per annum and a loss of between 1707 and 4024 jobs per annum (Wesgro, 2019 as cited in Dube et al., 2020). In 2017, the City of Cape Town adopted a "Day Zero" campaign to describe the impact of the drought in anticipation of the taps running dry on 22 April 2018 (Dube et al., 2020). This negative messaging had serious consequences for the tourism sector. In 2018, well below the national growth rate of 2.8%, Cape Town recorded a growth decline of 0.2% (Dube et al., 2020). In 2018 South Africa's growth rate of 2.8% was well below Africa's growth rate of 4.3%, impacted in all likelihood by the poor tourism performance of Cape Town (Dube et al., 2020). During the drought peak a 12.6%

[11]All of the data in this paragraph was sourced from a presentation by the KZN Department of Economic Development, Tourism and Environmental Affairs to the National Department of Tourism 22 April 2022

decline in overseas arrivals was recorded from comparative figures for April 2017 and April 2018, with a further decline of 3.7% and 1.3% observed in comparative figures for May 2017 and May 2018, and June 2017 and June 2018 respectively (Wesgro as cited in Dube et al., 2020). The decline coincided with the peak period of the Day Zero campaign and unfortunately the trend continued post the cancellation of the Day Zero campaign (Dube et al., 2020). In 2017/18 at the peak of the drought, all accommodation establishments in the Western Cape reported a negative growth rate averaging −4.4% (Dube, 2020). Five-star accommodation was least impacted possibly because they invested in, and advertised to their clients, technology to source their own water. Dube et al. (2020) further report that in 2015/2016 and 2016/17 a mostly positive growth rate was recorded for tourism attractions in Cape Town. During the peak of the drought and the year thereafter in 2017/18 and 2018/19 a chiefly negative growth was recorded for tourism attractions in Cape Town (Dube et al., 2020). The growth rates of various attractions in Cape Town between 2015 and 2018 are summarised in Table 4 below. Dube et al. (2020) surmise that tourists were afraid to visit the City due to reports of water shortages; in tourism perception is reality.

Table 4 Growth rates of various Cape Town Tourism Attractions between 2015 – 2019

Tourism Attraction	**2015/16 Rate of Growth**	**2016/17**	**2017/18 Rate of Growth (peak of the drought)**	**2018/19 Rate of Growth (post drought peak)**
Groot Constantia	+14%	No data	+1%	-9%
Cape Point	-3.5%	+20%	-2%	-2%
Kirstenbosch	-0.4%	+13%	+2%	No data
V&A Waterfront	-1.3%	-1.3%	-4%	-5%
Robben Island	No data	-2%	-18%	+7%
Chapman's Peak Drive	No data		-12%	+6%
Table Mountain	No data			-1%

Source: Compiled using information from Dube et al. (2020)

The supply of reliable energy has been brought sharply in focus with South Africans experiencing regular planned (load shedding) as well as unplanned power outages. Botha (2019) in exploring the impact of "load shedding" on restaurants in Nelson Mandela Bay indicated that 73% of the respondents identified load shedding as a serious concern and 93% of respondents have had to invest in costly alternatives for energy. Sixty percent of respondents in the survey experienced power outages of between 2 – 4 hours, twenty six percent between 5 -8 hours and seven percent above 8 hours. Load shedding impacted operations (80%); equipment (60%); costs (53); security (47%) and staff (33%). The greatest impact on operations emphasises the cumulative impact of load shedding on the other four factors. Staff often has to work harder to ensure service, or cannot work due to failure of equipment; equipment has to be repaired or replaced due to damage from fluctuations in electricity; additional security has to be hired to ensure the protection of staff and customers; generally costs escalate, and all of this impacts on business operations.

In summary, this section highlights the negative impact of poor infrastructure provision on the tourism sector.

2.2.6 The South African context of public sector infrastructure planning

The South African National Development Plan (NDP) 2030 aims to eliminate poverty and reduce inequality (National Planning Commission, 2013). The NDP recognises the importance of public infrastructure (energy, water and transport) in enabling economic growth (Watermeyer & Phillips, 2020). However, Watermeyer and Phillips (2020), citing examples of cost and time overruns on the Medupi and Kusile power stations, point out that if infrastructure is not planned and delivered in an efficient and effective manner, it could impede economic growth.

Historically, public infrastructure spend in South Africa has exceeded private sector spend (Watermeyer & Phillips, 2020). In 2018 for the first time ever, the private sector invested more than the public sector in the civil construction industry (CESA, 2018 as cited in Watermeyer and Phillips, 2020). The public sector spent R3 trillion between 1998/99 and 2017/18 on new infrastructure and the maintenance of existing infrastructure, averaging 5.9% of GDP[12] (Watermeyer & Phillips, 2020). However, since 2017 there has been a reduction of R 303 billion in public infrastructure spend. An increase of 28% annually until 2022 would be needed to maintain the current trajectory of spending (Watermeyer & Phillips, 2020), this was not achieved. The NDP set a target of 10% per annum for public infrastructure spend.

Underspending on capital budgets is also a challenge in the public sector. The average underspend allocated budgets between 2015 and 2018 by state-owned enterprises (SOEs) was 25%, public entities was 35% and the state as a whole was 15%. (Watermeyer & Phillips, 2020). This picture is worse at a local government level. In 2017/18 capital expenditure by metropolitan municipalities ranged between 55 to 78%, with 5 municipalities overspending by more than 200%, and 24 municipalities overspending between 100 – 150% (Watermeyer & Phillips, 2020). A breakdown is provided in Table 5 below. This underspend does not consider cost overruns on projects; the underspend would be higher if cost overruns were factored in (Watermeyer & Phillips, 2020).

[12] Note that the difference in figures for infrastructure spend and % contribution to GDP as cited in SAICE (2017) and Watermeyer and Phillips (2020) are accounted for by time difference of the publication of these two reports

Table 5 Breakdown of percentage of 2016/17 capital budget spent and number of municipalities

Number of Municipalities	**30**	**51**	**94**	**53**
2017/18 % spend of capital budgets	40%	Between 40 – 60%	60 – 80%	80 – 100%

(Source: Watermeyer & Phillips, 2020:IV)

In the 2017 Infrastructure Report Card (IRC) the country earned a D+ overall on the state of infrastructure in ten sectors (SAICE, 2017). This grade indicates infrastructure at risk of failure due to the lack of commitment to maintenance, and an inadequate focus on lifecycle costing models which includes capital and operating/maintenance expenditure requirements for projects. The 2017 IRC further indicates that key themes from the 2006 and 2011 IRC persist, i.e. f 1) a shortage of engineering capacity in the public sector and the resultant impact on planning, procurement, design, construction and care of infrastructure and 2) inadequate funding of maintenance for new and existing infrastructure (SAICE, 2006, 2011 and 2017). Table 6 below provides a summary of the overall grades from all three editions of the SAICE Infrastructure Report Card.

Table 6 Overall grades from the SAICE Infrastructure Report Cards for 2006, 2011 and 2017

Infrastructure score card	**Overall score**	**SAICE's comments on the overall score**
2006	**D+**	Although South Africa's built environment infrastructure is very good, even world class in parts, the relatively poor overall grade reflects extensive maintenance backlogs. These backlogs are caused primarily by funding and skills shortages
2011	**C-**	The focused investment over the past five years has resulted in more new infrastructure and an improvement in the condition of some existing assets. However, infrastructure at municipal level remains poor and is deteriorating in many places. Further, the resilience of all new and previously existing infrastructure is questionable without a much improved commitment to maintenance.
2017	**D+**	Although much of South Africa's built environment infrastructure is of high quality, the below-average grade reflects the continuing low maintenance levels, and even neglect in many areas, that is taking a toll on its resilience. A lack of commitment to long-term planning, adequate dedicated funding, proper management systems, data collection and skill deployment and collaboration are major contributing factors.

(Source: Watermeyer and Phillips, 2020 Table 5:19)

The 2017 IRC further reports on the following factors that critically affect the condition of infrastructure

1. the institutions that are tasked with the creation and care of infrastructure are generally poorly capacitated and have weak governance structures
2. the distribution and effectiveness of skills within these public sector bodies is impacted upon by the severe shortage of engineering skills in South Africa and the public sectors' inefficient allocation of these resources where they do exist, and
3. the lack of a data-driven decision-making culture in the public sector is entrenched by the lack of availability and appropriate use of data and information to influence decisions.

The report further indicates that infrastructure is key to inclusive growth, as it facilitates access to and broader participation in the economy. The responsibility for proper use and consistent maintenance of infrastructure rests with the State and the users of infrastructure.

The 2011 SAICE Infrastructure Report Card emphasised the importance of lifecycle costing. This sentiment echoed the clarion call of the National Infrastructure Maintenance Strategy (Department of Public Works, Council of Scientific and Industrial Research (CSIR) and Construction and Industry Development Board (CIBD,2006) which emphasised that the decision to procure infrastructure must include operations and maintenance and not just construction of infrastructure, poor design and construction decisions can have very expensive implications for operation and maintenance of infrastructure. Adopting a life-cycle asset management approach achieves the objective of lowest long-term cost throughout the life of the asset. Within the context of planning, design and commissioning of infrastructure represents less than 50% of the lifecycle costs (Department of Public Works, 2006). The adoption of a life-cycle asset management approach has important implications for this research project.

In 2017, for the first time, an opinion survey was included in the SAICE Infrastructure Report Card (Rust, Wall, Smit & Amod, 2021). The opinion survey interestingly yielded the same result as the research process for SAICE Infrastructure Report Card, i.e. infrastructure is generally in a poor state (Rust et al., 2021). The opinion survey also included provincial level information which is depicted in the Figure 2 below. In summary, this information indicates that in the Western Cape, Gauteng and KZN infrastructure is generally in a better condition than in other provinces. Scores of 2 and less indicate that this infrastructure is viewed as being at risk of failure or no longer fit for purpose.

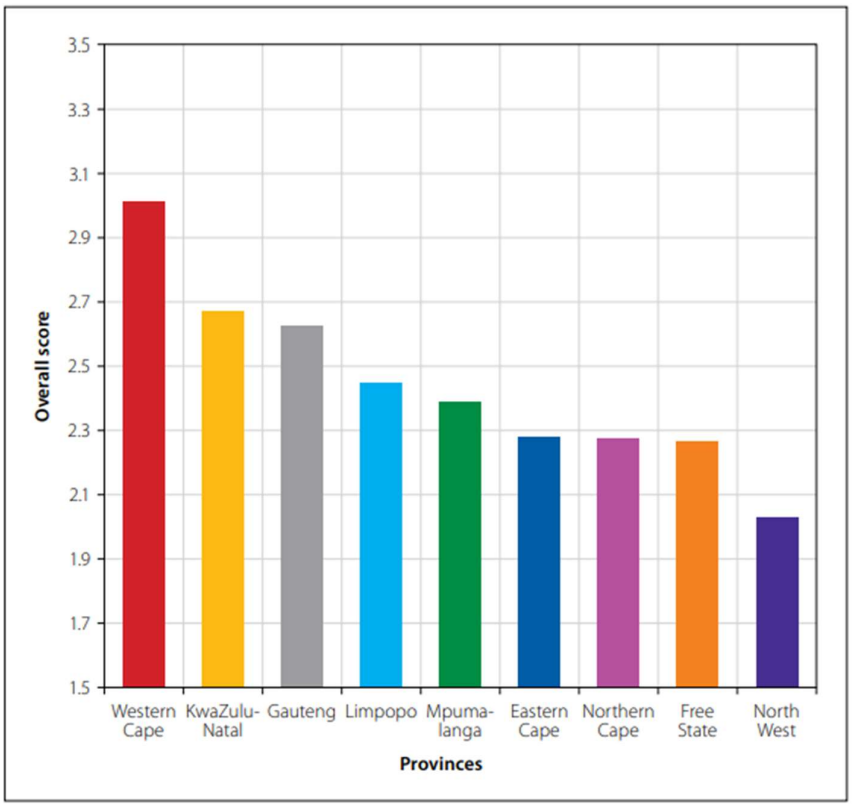


Figure 2 Opinion Survey overall score for the condition of infrastructure per province (Source: Rust et al., 2021 Figure 7:40)

The SAICE IRC (SAICE, 2017) recommends that South Africa should focus on:

1. The care and protection of new infrastructure and care of existing infrastructure
2. Development of institutional capability and capacity (also supported by Watermeyer & Phillips, 2020) through accelerated training and the promotion of competent, ethical leadership incentives for ongoing professional development in civil engineering disciplines to improve effective design, maintenance and management of infrastructure
3. Better cooperation between spheres of government and increased private/public sector collaboration.

Over the past two decades, the State has spent over R2.5 trillion on infrastructure, or an annual average of 6% of GDP[13] (Republic of South Africa, 2017 as cited in SAICE, 2017). This spending includes maintenance, upgrades and capital expenditure across all three spheres of government. Since 2009, the capital investment in tourism on the other hand, an aggregate of both public and private sector investment, remained relatively constant at roughly R 65 billion per annum (WTTC, 2016). Uneven focus and spend on the tourism sector is further evidenced in the R 1 Trillion National Infrastructure Plan (Republic of South Africa, 2012) which outlines eighteen strategic integrated projects (SIPS), none of which have any reference or focus on the tourism sector. Additionally, of the 3 760 infrastructure projects implemented through the Municipal Infrastructure Grant (MIG) system which is the largest local government infrastructure development fund (Republic of South Africa, 2015), only five (Republic of South Africa, 2015a) are categorised as tourism projects.

Arguably the MIG programme is meant to address backlogs in basic infrastructure but the same programme has ring-fenced 15% of its funding and implemented 298 (of 3 760) projects in the sports and recreation sector (Republic of South Africa,

[13] Note that the difference in figures for infrastructure spend and % contribution to GDP as cited in SAICE (2017) and Watermeyer and Phillips (2020) are accounted for by time difference of the publication of these two reports.

2015). There are infrastructure projects that primarily address tourism needs. However, there are many more public sector infrastructure projects that are planned, designed and constructed without multi-sectoral considerations, including tourism. Within the context of a constrained and developing economy, maximising the use of public spend on infrastructure is imperative.

The Infrastructure Delivery Management System (IDMS, Republic of South Africa Department of National Treasury, 2015c) and the Framework for Infrastructure Delivery and Procurement Management (FIDPM) provides a framework for delivery of infrastructure projects in South Africa. The IDMS is a public sector management instrument for *"planning, budgeting, procurement, delivery, maintenance, operation, monitoring and evaluation of infrastructure"* (Watermeyer, Wall & Pirie, 2013: 21).

The Framework for Infrastructure Delivery and Procurement Management (FIDPM) was issued in October 2019 and replaced the Standard for Infrastructure Procurement and Delivery Management (SIPDM) (Republic of South Africa, 2022). There are fundamental differences between SIPDM and FIDPM (Anthony, 2021, Watermeyer & Phillips, 2020).

Government's SIPDM was made up of three separate but interlinking systems 1) Planning and Budgeting System 2) the Supply Chain or Procurement Management System and 3) an asset Management System (SAICE 2016). The intention of the SIPDM is to separate the procurement of construction related goods and services from the procurement of general goods and services thereby achieving a value for money proposition through quality service delivery for infrastructure procurement (Watermeyer, Wall & Pirie, 2013 and SAICE, 2016).The SIPDM did not set out planning and budgeting or asset management requirements but it highlighted the interconnectedness of these systems (SAICE, 2016).

However, adopting a life-cycle asset management approach to the research implies the Planning and Budgeting System cannot be viewed in isolation of the Supply Chain/Procurement Management and Asset Management Systems. It is important to note here the specific approvals required by the SIPDM from a Cabinet (National level of Government) or the Executive Council (Provincial level of Government) (SAICE, 2016).

At the time that SIPDM was published, the National Treasury through the Office of Chief Procurement Officer (OCPO) held unsuccessful discussions with the Construction Industry Development Board (CIDB) to try to align the CIDB Standard for Uniformity in Engineering and Construction Works Contracts (SFU) (Watermeyer & Phillips, 2020). This is an important development as Anthony (2021) points out the construction industry in South Africa is regulated by the Construction Industry Development Board Act 38 of 2000 which established the CIDB as the sole regulator for the industry, a role which includes construction procurement. Watermeyer and Phillips (2020) state that since the promulgation of the Construction Industry Development Board Act of 2000, the concepts of infrastructure have changed. Anthony (2021) indicates that from a legal perspective FIDPM cannot repeal SIPDM as the two appear to serve different purposes, SIPDM offers a model to measure infrastructure procurement whereas FIDPM serves merely as a concept. In light of this Anthony (2021) concludes that CIDB system remains in force. The lack of alignment between the public and private sectors perpetuates challenges in the delivery of public sector infrastructure.

Nonetheless, FIDPM is now in place. FIDPM prescribes the minimum requirements for the implementation of the IDMS i.e. IDMS processes consist of portfolio, programme, projects, operations and maintenance of infrastructure and Infrastructure Procurement Gates (Republic of South Africa, 2022). The focus of FIDPM is on the IDMS and not on procurement of infrastructure (Watermeyer &

Phillips, 2020). FIDPM reverts to using the same procurement methods for all goods and services including infrastructure, a specific stipulation that SIPDM sought to differentiate (Watermeyer & Phillips, 2020). Unfortunately, this perpetuates inefficiencies and ineffectiveness in public infrastructure spend. Watermeyer & Phillips (2020) further indicate that the FIDPM approach is most appropriate for the delivery of new routine infrastructure projects and presents challenges for rehabilitation or maintenance of existing infrastructure or new complex infrastructure projects. Given that maintenance is a key priority in all three editions of the IRC (SAICE 2006, 2011 & 2017) presents a very challenging context for public sector officials. The challenges related to SIPDM and FIDPM reflect the disjuncture between technical understandings of how infrastructure operates and policy makers perspectives, it is important to narrow the gap between these two elements to develop better informed policy making. Figure 3 outlines the Project Stages as prescribed by FIDPM and Figure 4 provides a flow diagram of the stages of project development envisaged by FIDPM.



Figure 3 Project Stages as prescribed by FIPDM (Source: Republic of South Africa, 2022, Department of National Treasury, Infrastructure Planning and Appraisal Guideline, Figure 1:2)

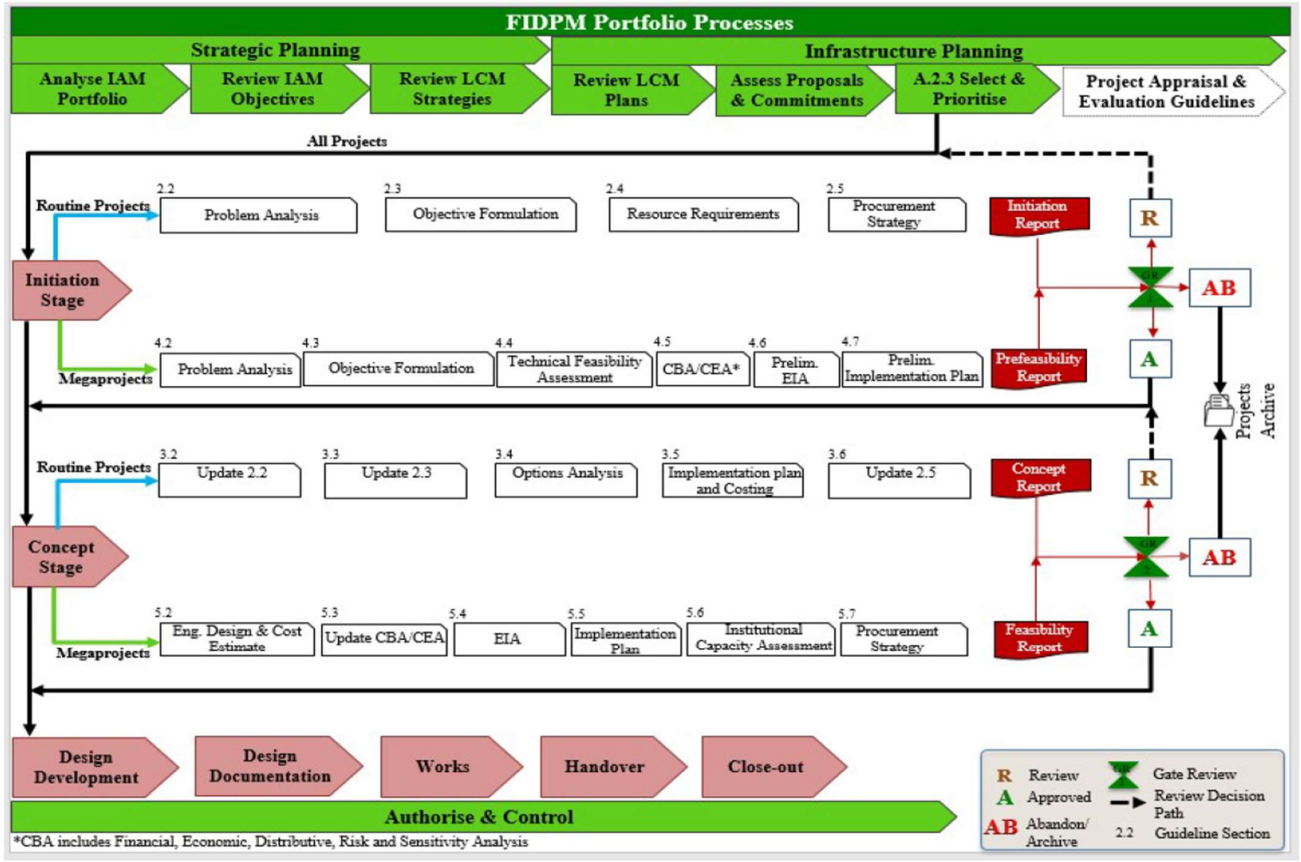


Figure 4: Flow diagram of the stages of project development (Source: Republic of South Africa, 2022, Department of National Treasury, Infrastructure Planning and Appraisal Guideline, Figure 2:4)

The South African Government has implemented several initiatives aimed at improving infrastructure delivery and public sector spend (Watermeyer & Phillips, 2020). The infrastructure requirements of all government departments were historically centralised in the budget of the Department of Public Works (DPW now Public Works and Infrastructure i.e. DPWI). There were however challenges in co-ordination and communication between Departments and the Infrastructure Delivery Improvement Programme (IDIP) was introduced to address these challenges.

The IDIP has been run since 2004. This programme's intended purpose is to build the capacity to support improvement in the management, procurement and planning of infrastructure delivery at a local and provincial government level (Republic of South Africa Department of National Treasury, 2015c). The consistent areas of concern are government spending, appraisal and procurement systems, quality of delivery and maintenance (Republic of South Africa Department of National Treasury, 2015c). Initiatives to improve planning, co-ordination and implementation of infrastructure include:

1. Improving planning and delivery of quality projects: The introduction of a new capital budgeting framework.
2. Improving asset management: Planning and budgeting will include full life-cycle costs of infrastructure in particular maintenance.
3. Standardising procurement requirements: SIPDM and its new replacement, the Framework for Infrastructure Procurement and Delivery Management (FIPDM) as attempts procurement and implementation.

In June 2006 government launched the Siyenza Manje initiative. This initiative was designed to build capacity at underperforming municipalities through the deployment of semi-retired personnel skilled in engineering, finance and project management. The programme was managed through the Development Fund by the Development Bank of Southern Africa (DBSA).

In May 2012, the Department of Cooperative Governance and Traditional Affairs (COGTA) created the Municipal Infrastructure Support Agency (MISA). MISA inherited the responsibilities of the Siyenza Mange Initiative from the DBSA (Watermeyer & Phillips, 2020).

The action plan for the National Infrastructure Maintenance Strategy (NIMS) was published in 2007. This programme was jointly developed by the DPW, CIDB and the CSIR and serves as government's commitment to infrastructure maintenance (Watermeyer & Phillips, 2020).

National Treasury in collaboration with the CIDB produced various Infrastructure Delivery Management Toolkits and Guidelines in 2004, 2006 and 2010 (Watermeyer & Phillips, 2020). In 2016 National Treasury produced the Cities IDMS through the Cities Support Programme. This toolkit, designed for infrastructure planners and city decision makers, was aimed at accelerating the delivery of infrastructure to future-proof cities (Watermeyer & Phillips, 2020).

In 2012, Cabinet established the Presidential Infrastructure Coordinating Commission (PICC) through the Infrastructure Development Act, Act 23 of 2014 (Watermeyer & Phillips, 2020). The key purpose of the PICC was to integrate and co-ordinate long term infrastructure projects (PICC, 2012). The PICC has oversight responsibility for the National Infrastructure Plan which in 2012 identified 18 Strategic Integrated Projects (SIPs) that were approved by Cabinet. The SIPS are cover all nine provinces and deliver social and economic infrastructure, none of these SIPs have a specific tourism focus/purpose.

The Office of the Chief Procurement Officer (OCPO) was created in 2013 in National Treasury to manage procurement reforms for the public sector which encompasses Supply Chain Policy and Contract Management (Watermeyer &

Phillips 2020). The OCPO was responsible for the development of both SIPDM and FIDPM.

Poor planning and design of infrastructure projects has repeatedly been raised as challenge that impacts on delivery, but also on private sector equity funding (Watermeyer & Phillips, 2020; Ehlers, 2014). To address these challenges a R 625 million project preparation facility was established in 2018 at National Treasury. National Treasury, PICC, DBSA and the Government Technical Advisory Centre (GTAC) represent government with the private sector being represented by the Banking Association of South Africa (BASA), the Association for Savings and Investment South Africa, the New Development Bank and the South Africa Venture Capital and Private Equity Association (Watermeyer & Phillips, 2020).

On 27 May 2020 Cabinet approved South Africa's National Infrastructure Plan (NIP) 2050. This ushered in a new working model for infrastructure with Infrastructure South Africa (ISA) becoming a central point of entry for all infrastructure projects in the country. The role of ISA is to manage a single credible comprehensive pipeline of infrastructure projects and was set up to deliver on the promises in the NDP of infrastructure's contribution to poverty eradication and unemployment reduction (Republic of South Africa 2020). ISA effectively acts as the technical arm of the PICC and reports directly to the President who Chairs the PICC and the Minister of Public Works and Infrastructure who carries the Executive Authority mandate for infrastructure. ISA inherits the previous SIPS, the project preparation facility, and the critical role of data management. At the time of writing this thesis, there were no specific tourism projects that have been included in the NIP 2050, primarily because tourism infrastructure projects are very small in comparison to the mega infrastructure projects. However, the Department of Tourism is in discussion with the ISA team on best to utilise their support to advance tourism infrastructure.

In summary, the South African government recognises the critical importance of infrastructure investment to economic growth. However, as evidenced through successive Infrastructure Report Cards (SAICE, 2006; 2011; 2017) the condition of public infrastructure is rapidly deteriorating due to the lack of maintenance and management. Infrastructure investment is central in policy documents and strategies. However, in real terms, public sector investment in infrastructure is decreasing. Poor planning and implementation of capital projects results in both underspending, particularly by the local government sphere, as well as cost and time overruns (Watermeyer & Phillips, 2020).

Similar to the international research findings (Hickford et al., 2019; McLean, 2017); SAICE (2017) identifies the lack of capacity and poor governance of institutions tasked with infrastructure delivery as a root cause of poor infrastructure delivery. This is exacerbated by the severe shortage of engineers and a lack of evidenced based planning and decision making in the public sector. Initiatives to improve integrated infrastructure planning, co-ordination and delivery have largely proved to be unsuccessful as evidenced by declining IRC grades for South Africa's infrastructure. There is no shared vision between the public and private sectors for the delivery of public sector infrastructure. Poor planning and design of infrastructure projects impacts on public sector delivery, but also on private sector equity funding (Watermeyer & Phillips, 2020; Ehlers, 2014). Within this broader public sector infrastructure context, it is no surprise that annual investment in tourism infrastructure is declining. This makes the task of integrating tourism infrastructure more urgent.

2.3 What the literature says about tourism

2.3.1 Trends in tourism research

Butler (2015) traces some of the earliest tourism research back to the 1930s. The 1960s saw much tourism relevant research in North American published as leisure

and recreation, whilst the 1970s saw rapid theoretical development in tourism. Butler (2015) states that the multi-disciplinary nature of research into tourism has led to the borrowing of concepts and models from established disciplines. One of the impacts of this, he argues, is little scholarship on tourism and therefore suggests more critical research in tourism. Ballantyne, Packer and Axelsen (2009: 151) observed as trends in tourism research "the gradual erosion of the dominance of North America; the increasing contribution of Australia, New Zealand and Asian countries". Within the context of growing international tourism research, Sub-Saharan Africa represents the most undeveloped tourism literature and research base (Rogerson, 2012).

Correia and Kozak (2022) completed a social network analysis of more than 60 000 tourism journal articles published in the last 70 years and concluded that all the core topics are related to economic, marketing and geographic perspectives of tourism. Destination research focuses on accessibility, recreation, and development and management of tourism to ensure sustainability. Those papers have mostly benefited from the application of economic, planning, and social theories.

Visser (2016) highlights that South African tourism geographers have dominated the production of tourism knowledge. His work supports the international trend (McKercher, 2008 as cited in Butler, 2015) of geographers being at the forefront of tourism research. South African Tourism Geographers have covered a wide range of tourism topics. These range from local and regional development, events, historical and cultural tourism, amongst many others (Ferreira, 2018). Visser (2016a, 2016b) argues that the systematic study of the South African tourism system is recent, gaining impetus during the late 1990s and the 2000s. He maintains that a distinguishing feature of South African scholarship has been its policy relevant focus and an emphasis on tourism as a driver of inclusive economic growth and transformation. This researchers critique of this vast literature is that

tourism scholarship in South Africa has been directed by government policy as opposed to directing government policy. One reason for this could be that it is largely consumed in academic forums and is perceived as not addressing the real challenges faced by policy makers.

Visser (2016a, 2016b) traces the historical establishment of South Africa tourism as an economic system to before the Second World War. The development of tourism cannot be delinked from the colonial and apartheid history of South Africa. Before the Second World War, South Africa, in particular Johannesburg, Cape Town and Port Elizabeth, were popular with white tourists from neighbouring colonial territories (Rogerson, 2011 as cited in Visser, 2016a). Post-war, tourism continued by these white tourists from neighbouring countries, who between the 1950s and the 1960s numbered 172 000 (Ferrario, 1977 as cited in Visser, 2016a). From the 1970's until the late 1980s, the tourism sector was the "most affected by apartheid and subsequent international sanctions" (Visser & Rogerson, 2004:201 as cited in Visser, 2016a). In addition to Apartheid legislation impacting on international tourism, it also prevented domestic tourism growth. Black South Africans, who were in the majority, had no freedom of movement or access to accommodation or leisure activities which were reserved exclusively for White South Africans. This legacy is perpetuated in the current lack of travel by Black South Africans and the sluggish growth of the domestic tourism market. This is particularly problematic as international practice demonstrates that domestic tourism is the backbone of national tourism growth.

The historic impact of Apartheid is that tourism had very little national economic value and therefore had no prominence in government policy or planning frameworks (Visser 2016a, 2016b; Rogerson, 2015). Visser (2016a) notes the absence of tourism from South African academic and public discourse up until the 1970s. The majority of the initial tourism research in South Africa was isolated pieces of work (Visser & Rogerson, 2004 as cited in Visser, 2016a). Visser (2016a)

states that this academic and policy vacuum was finally addressed through government policy documents which framed much of the tourism research. In the post-apartheid period research attention in tourism was focussed on describing and analysing the potential of tourism in South African and its ability to meet the government policy objectives (Visser 2016a, 2016b).

Visser (2016a, 2016b) suggests various areas of future research themes. Whilst the future research themes, e.g. the history of recreation, leisure and tourism in South Africa, are all interesting and relevant, they do not address the most pressing challenges faced by tourism policy makers. This researcher argues that public policy makers are preoccupied with matters of integration which are not a focus of current research. While there has been significant tourism research in South Africa only a few areas have received sustained research interest. These areas relate to 1) the development of tourism accommodation, such as second homes and guest houses and 2) the implementation of government policy. A critique of the current South African tourism research is that it appears to suffer from attention to fads, i.e. sporadic research on the most topical issues. Furthermore, the research appears to be led by government policy rather than leading government policy largely because the research is divorced from the practical challenges facing the public sector. A policy maker's perspective is absent in the research.

In summary, the trend in tourism research highlights a reduced focus on tourism planning at an international level. Tourism planning is largely absent from South African scholarship. A critique of the current South African tourism research is that it appears to suffer from attention to fads i.e. sporadic research on the most topical issues. Despite the developmental focus of South African tourism research, it has still largely followed the trends of international research leaving large gaps in the study of tourism planning. If the current trend in research is followed, tourism planning will continue to be absent in academic discourse. The current

study which focuses on infrastructure planning in the tourism context therefore addresses a critical gap in the current literature on tourism.

2.3.2 Tourism planning

A universally accepted definition of tourism planning is still elusive (Dredge & Jamal, 2015). This is partly due to the complexity of the tourism planning process itself. However, this also relates to the view of tourism policy and planning as inseparable and interrelated processes. Gunn (1994) provides the following definition "Tourism planning refers to the integrated planning of an attraction (natural, cultural, man-made), service and transportation facility". Gunn (1994) concludes that an understanding of all government policies and practices are essential to tourism planning and development. Hall (2008) traces tourism planning back to the seminal works of Dror (1973: 330) who argued that "Planning is a process of preparing a set of decisions for action in the future, directed at achieving goals by preferable means". Hellely (1981), Hall and Page (2006) as cited in Hall (2008: 14) argue that "planning within public entities is rarely exclusively devoted to tourism per se. Instead planning for tourism tends to be an amalgam of economic, social, political and environmental considerations that reflect the diversity of the factors which influence tourism development". Hall (2008) further motivates for the integration of tourism planning with broader planning processes to create, ultimately, sustainable places.

Gunn (1977; 1994) remains a seminal text on tourism planning. He concludes that tourism has been dominated by a philosophy of promotion or in current terms marketing. This has historically resulted in both the public and private sector spend being concentrated on promoting areas in the belief that this is the only way for tourism to develop. The underlying assumption in this philosophy was that the tourism infrastructure would materialise organically if areas were promoted. Gunn (1994) eloquently describes planning for tourism at regional,

destination and site levels and emphasises that new concepts, models, guidelines and practices are needed in order to improve decision making in tourism. Gunn (1994) suggested that all aspects of tourism e.g. infrastructure, attractions, marketing and services must be planned simultaneously. The complexity of tourism planning lies in integration as it is challenging to consider all planning elements simultaneously. Gunn (1994) also describes tourism as a dynamic system which requires an understanding of both the supply (i.e. development) and demand (i.e. market) factors. The role of tourism planning is to match tourism supply to demand.

Inskeep (1991) in his seminal work on tourism planning states that historically, tourism planning only dealt with accommodation, transport and marketing. He advocated that planning for tourism development needed to consider both demand and supply factors in order to be effective. Tourism planning is therefore a much broader process with infrastructure planning being but one component of this process. Most models of tourism planning also assume that infrastructure is already in place at a tourism destination, i.e. most tourism planning does not concern itself with infrastructure planning unless it is purely tourism infrastructure, i.e. a hotel or tourism attraction.

Leiper (1979) defines the tourist industry as all businesses or facilities that cater to tourists needs. This supply side perspective he argues reflects the Partial Industrialisation In Tourism (PIIT) as the tourism sector is only partially supported by industry delivering only tourism services (Leiper, 1979; Leiper, Stear, Hing & Firth, 2008). The dominant demand side approach has prevailed largely because of a need to measure the economic contribution of the tourism (Leiper, Stear, Hing & Firth, 2008). Leiper has argued that while both demand and supply perspectives have their advantages and can be used in a complimentary manner, the PIIT offers governments a more realistic evidence base upon which to determine public sector support or spend in the tourism industry. The key weakness of a demand

side perspective is that it exaggerates the contribution of tourism to economic growth and job creation, two factors that have weighed heavily in governments overinvolvement in the tourism. Leiper's notion of PITT is particularly relevant to governance for tourism in South Africa. If a supply side approach is taken to tourism planning, it would allow for an identification of the industries directly supporting tourism growth. This in turn would assist to prioritise only critical/catalytic projects to maximise the use of limited public resources. The concept of the PIIT is particularly relevant in the context of diminishing public fiscus. The key challenge with utilising Leiper's PIIT in the context of the current study is that it would require primary research on the tourism supply value chain which is outside the scope of this study. However, the implication of Leiper's concept of PIIT for the model on integrated tourism infrastructure planning is an area recommended for future research.

It is widely agreed that from the 1930s tourism was unplanned in most countries (Inskeep, 1991; Tosun & Jenkins, 1998; Kerimoglu et al., 2013). Tosun & Jenkins (1998) describe tourism planning as outlined in Figure 5 below:

Stage 1: Unplanned	•Tourism development was unplanned. Tourism was not a priority for the developing world and many governments saw tourism as a purely private sector activity.
Stage 2: Supply oriented planning commences	•The key focus was to construct amenities such as accomodation; resorts and create transport links for tourism activities.
Stage 3: Completely supply driven	•The key focus was gaining increased market share from the increased tourism demand. This haste resulted in haphazard development. The environment, host communities and tourist satisfaction were not considered in tourism planning and development.
Stage 4: Demand driven	•A tourist-centred focus informs planning and marketing.
Stage 5: Current	•This approach has been informed by a consciousness of the social and environmental impacts of unplanned and poorly planned tourism. Academia and governments have commenced considering social, environmental, cultural and economic impacts of the tourism sector.

Figure 5 Evolution of Tourism Planning – Adapted from Tosun and Jenkins (1998: 102)

Tosun and Jenkins (1998) state that tourism planning has become progressively comprehensive. Timothy (1998) further elaborates that planning paradigms in tourism emerged from the broader traditions of urban and regional planning which tried to curb the harmful effects of tourism.

Saarinen, Rogerson and Hall (2017) trace the history of tourism planning. This is well summarised in Figure 6 contained below.

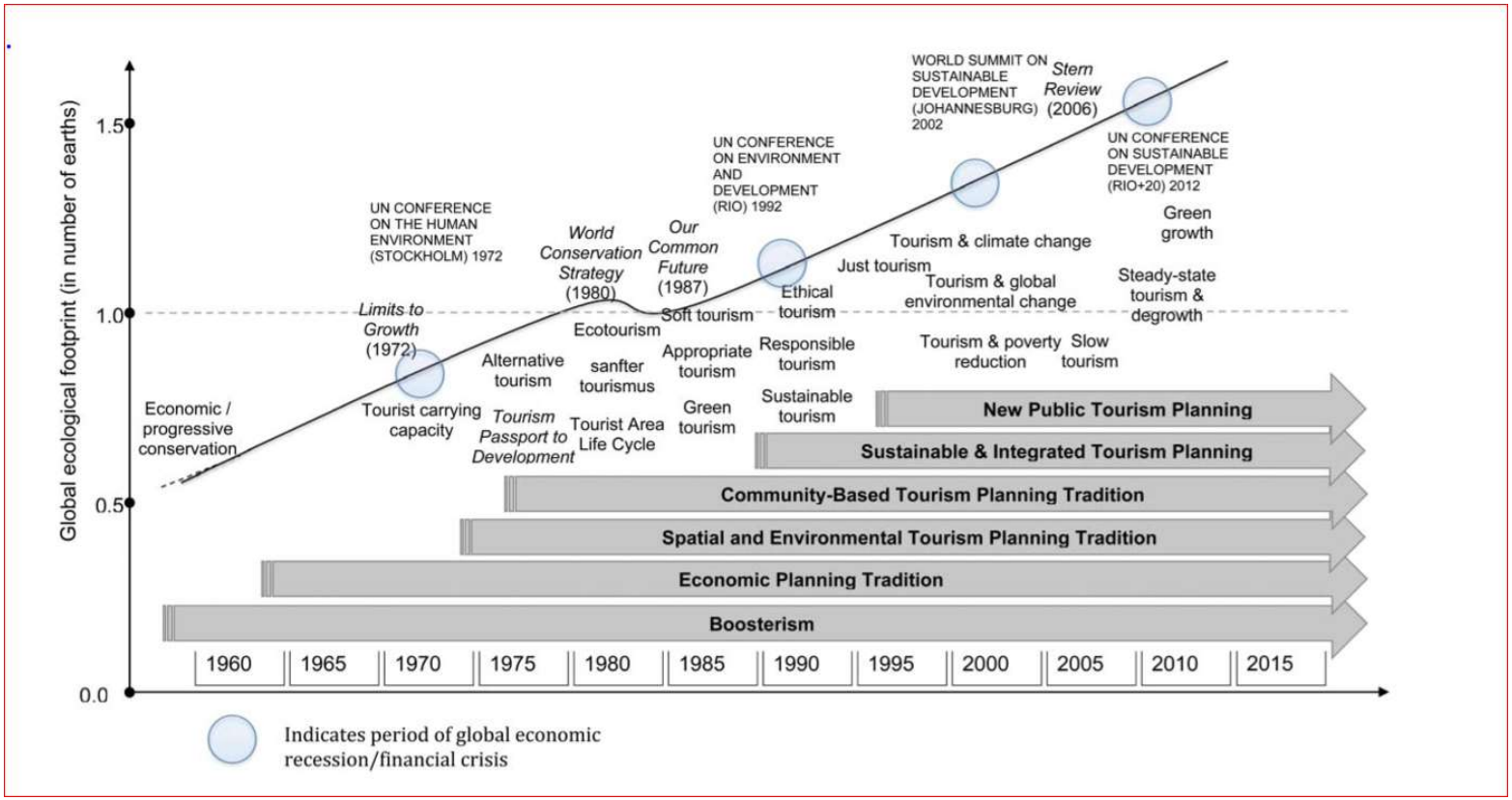


Figure 6 Relationships between planning traditions, key themes in tourism development, global development milestones, and humanity's global footprint (Hall, 2015a as cited in Saarinen, Rogerson and Hall, 2017: 309)

Several authors (Saarinen, Rogerson & Hall, 2017; Adu- Ampong, 2019) support Butler's (2015) contention that the history of tourism planning is under-researched. This lack of understanding the past limits the transformation of tourism destinations and the current challenges in planning. This is particularly relevant for a South African context where, for example, the current focus on township tourism could inadvertently serve to entrench former apartheid spatial planning.

Dredge and Jamal (2015) further elaborate on tourism policy and planning. Their paper argues that knowledge of tourism policy and planning is socially constructed. Tourism planning and policy are viewed as overlapping, intersecting subjects, and the authors discuss the importance of understanding the complex factors which shape the social construction of knowledge. Dredge and Jamal (2015) conclude that researchers must engage critically with public tourism policy and planning practice in order for research to be relevant and credible.

The links between tourism and town planning have been researched by various authors (Costa, 2001; Dredge, 1999; Neuman & Smith, 2010). Costa (2001) argued that tourism and town planning have followed distinctly different paths and although tourism planning is viewed as a specialisation of town planning, it is yet to find its own identity and place amongst other disciplines. This author further argues that until the 1990s, very few academics were researching tourism planning and tourism academics were likewise disinterested in town planning, which widened the gaps between town and tourism planning. Costa (2001) also traces the academic influences on tourism between 1850 and 1950 to business/economics, between 1950 and 1980 mostly to economics and some town planning, and from 1980's to 2000 to economics, sociology and physical planning with the emergence of a planning school for tourism in the same period. Tourism planning is therefore a relatively young field of knowledge emerging only in the 1990s, while town planning has its roots in schools of thought established

in the 1850's. It has been suggested (Dredge, 1999; Inskeep, 1988) that the challenge with the integration of tourism into other forms of planning is that tourism planning is seen as a separate specialisation and tourism planners do not provide the language/framework of tourism for use by other professionals. Further the definitions of infrastructure for tourism priorities are completely different from the definitions for infrastructure planners, so this further exacerbates the divide. Lew (2007) points out that one of the failings of planning for tourism is the recognition of the role of the planner as a change agent, as it firstly does not indicate "how planners should plan" and secondly it does not highlight "what issues planners should focus on in their planning".

There is an interesting series of articles that explores the interface between education for civil engineering and planning and argues for the inclusion of planning education in the curriculum of civil engineers, given the critical role that civil engineers play in the urban planning process (Lyles, 1984; 1987; Khisty, 1987; Nelson, 1987). More recent literature on this same subject (Venter & Coetzee, 2013) again highlights the challenges in the integration of urban and regional planning within the civil engineering curriculum.

Rogerson (2015) states that there is minimal research in Africa on the connection of tourism and regional development. Kang et al. (2014 as cited in Rogerson, 2015) argue the both increased demand and increased supply are required for the growth of regional tourism development. Rogerson (2015) further argues that tourism must be integrated with other sectors, e.g. transport, in order for the sector to drive regional economic development. As described in Section 3.2 the spatial distribution of tourism has been impacted upon by Apartheid. Since democracy, tourism development has concentrated on the urban centres as well as a few small towns (Rogerson, 2013; 2015; Hoogendoorn & Visser, 2016). Evidence of this trend can be found, for example, in tourism investments in accommodation since 1990. Rural areas in South Africa, despite having high

untapped tourism potential, for example the Wild Coast in the Eastern Cape, remain undeveloped. Of course, an uneven spread of tourism development leads to a skewed distribution of economic benefits.

Addressing the uneven distribution of the benefits of tourism has been part of policy discourse since the end of Apartheid. Despite this, this uneven distribution continues more than two decades later. As pointed out by Visser and Hoogendoorn (2012), tourism development is concentrated in the urban regions of Johannesburg, Durban and Cape Town with limited development of tourism in rural nodes, with the exception of parts of Mpumalanga, Limpopo, and the Garden Route in the Western Cape. It is argued that this challenge is not related to policy but rather to planning and implementation of tourism. Until the creation of the Department of Tourism in 2009, most of tourism's focus at a National level has been on marketing (Visser & Hoogendoorn, 2012). Tourism is increasingly becoming an option for diversifying the South African economy. Heiman (2013 as cited in Rogerson, 2015) suggests that government investment in infrastructure should shift from basic services towards more catalytic economic transformation of the use of the tourism infrastructure asset base. Planning and development of tourism infrastructure is therefore an urgent and long overdue task.

In summary, there is broad agreement that in most countries tourism has been unplanned (Inskeep, 1991; Tosun & Jenkins, 1998; Kerimoglu, et al., 2013). However, deliberate planning for tourism (Gunn, 1994) and the integration of tourism with other sectors (Rogerson, 2015) is critical if tourism is to serve as a driver of regional economic development (Gunn, 1994; Rogerson, 2015). This is particularly relevant given the uneven South African tourism space economy, a legacy of the country's history(Rogerson, 2013;2015; Visser & Hoogendoorn, 2012).

Historically, there has been a focus on tourism marketing rather than tourism planning (Gunn,1994; Visser & Hoogendoorn, 2012) with resultant public and private sector spend being concentrated on marketing in the belief that this is the only way for tourism to develop (Gunn, 1994). The real gap in the tourism literature is that it assumes that the infrastructure base to support tourism is already in existence and therefore the literature does not explicitly address infrastructure planning for tourism except in the cases where infrastructure is specifically being built for , for example in the case of a tourism resort or hotel development.

Further, tourism planning is seen as a separate specialisation and other professionals are not familiar with tourism planner 'speak'. The definitions of infrastructure for tourism priorities are completely different to the definitions for infrastructure planners, so this further exacerbates the divide. Interestingly there is a similar divide between urban and regional planning professionals and infrastructure planners. Tourism professionals need to learn about both infrastructure and urban and regional planning processes, in order for them to advocate for policies, planning and funding of tourism infrastructure for further development of the sector. This literature points to the development of a language/framework of tourism to narrow the divide between tourism and infrastructure planners.

In short, the literature on tourism planning supports the case for integrated planning in tourism generally and the development of a model to integrate tourism infrastructure planning specifically.

2.3.3 Tourism and infrastructure development

The literature reveals various studies that examine the link between tourism and infrastructure development. Beauregard (1998), in tracing the historical role of tourism in US government-led, urban economic development reflects that there

were two factors that led to tourism's ascendency from invisibility to a key economic sector. These (Beauregard, 1998: 228) were related to a) political economic restructuring of cities and b) changes in the tourism industry itself. An additional factor that supported the ascendance of tourism as an economic sector was the realisation of the critical links between tourism, property development and infrastructure development (Beauregard, 1998: 231). Essentially, the decline in the primary sectors of manufacturing led to a search for secondary and tertiary sectors that could deliver economic growth. Public spending on infrastructure similarly shifted from investment in the primary sectors to investment in secondary and tertiary sectors. The services sector, of which tourism is a part, was a beneficiary of this shift in public spending, and tourism infrastructure and the tourism sector flourished. Beauregard (1998: 233) cautions, however, that the prominence of tourism as an economic sector could be reversed if it does not retain the attention of political and economic development policy makers. From a public policy maker, this particular observation remains relevant today, and informs the need to ensure that tourism continues to enjoy public sector investment through spending on tourism infrastructure and this element forms an important aspect of this research study.

In a report titled Governing National Tourism Policy (WTTC, 2015) it is argued that tourism growth requires co-ordinated policy development and implementation across multiple public and private sector organisations and actors. The report further outlines the trends in public, private and cross-government collaboration, largely in the global north. This trend highlights that 40 to 50 years ago in order to ensure tourism development governments took a strong driving role which included investment in infrastructure development for tourism. However, with the increasing commercial value of tourism being recognised in developed economies since the mid-1990s, the private sector increasingly took on the driving role for tourism including infrastructure with governments being content to be relegated to the role of regulator and in some instances over-regulation of the

tourism industry. The current constrained global economic climate calls for a better balance between these two extremes, greater co-operation between the state and private parties and for public policy that enables tourism growth.

Authors have explored different aspects of tourism infrastructure (Mandić et al., 2018). Santos, Ferreira and Costas (2014) cite several authors who concur that basic public infrastructure development in mature tourism destinations, does not match the pace and scale required to support tourism infrastructure construction e.g. resorts. According to Ritchie and Crouch (2003), this may hinder the competitiveness of the tourism destination in two ways. Firstly, infrastructure influences a tourist's perception and selection of a tourism destination and, secondly, the quality of the infrastructure affects the functioning of a tourism destination. According to Mo, Howard and Havitz (1993), the atmosphere at the tourism destination and tourism infrastructure are the two most critical issues influencing the experience of a visitor. Special emphasis on tourism infrastructure is necessary given it role in influencing the tourist's experience as well as providing business opportunities (Mo, Howard & Havitz, 1993; Dwyer & Kim, 2003).

Studies have highlighted the positive correlation between tourist satisfaction levels and the quality of infrastructure in a tourism area (Smith, 1994 as cited in Imikan & Ekpo, 2012). Well-developed infrastructure is important for tourist's perceptions of a positive image of a tourism destination (Ritchie & Crouch, 2000). Dwyer and Kim (2003) highlight that the importance of infrastructure to a tourists experience reinforces the importance of tourism demand as a determinant of destination competitiveness. Boers and Cottrell (2007) emphasise that tourism planning and development requires infrastructure like electricity, airports and roads and other studies (Kim, 2000 as cited in Imikan & Ekpo, 2012) have highlighted the importance of infrastructure as an influential key factor in influencing tourist arrival. While several authors (Seetanah et al., 2011; Sharma & Bansal, 2010; Hassan & Burns, 2014) agree that the construction of infrastructure

and service facilities are essential to development in the tourism industry others caution that infrastructure development might jeopardise the sustainability of tourism sites (Yang, Lin & Han, 2010; Landorf, 2009) and yet other authors (Hall, 2011) argue that sustainable tourism as a broad policy position is unachievable due to tourism's consumptive nature. Other authors have motivated for the inclusion of recreational facilities as being integral to overall economic and tourism development (Mandić et al., 2018).From an African perspective, Rogerson (2012) argues that careful and strategic policy interventions grounded in the African tourism experience are urgently required. It is the view of this researcher that the "precautionary principle" i.e. a risk averse strategy should be used for tourism developments on the continent. Rogerson and Van der Merwe (2016: 237) argue that the development and promotion of tourism products and attractions i.e. tourism infrastructure is the basis for tourism as a lead economic development sector. All of this research highlights the symbiotic relationship between infrastructure provision and satisfaction levels of a tourist and by implication economic growth.

In Africa the importance of tourism as a basis for ensuring sustainability of both the natural environment and cultural heritage are critical emerging research themes (Rogerson, 2012). Poorly managed tourism destinations that are overdeveloped and place a strain on natural, cultural and infrastructure resources as well as host communities (Butler, 1993; 2010). In an increasingly competitive global tourism environment, tourism policy which creates an environment that encourages tourism to thrive provides tourism destinations with a critical competitive advantage (Ritchie & Crouch, 1999; 2000).

Tourism is a very complex phenomenon (Edgell et al., 2008) due to its multisectoral nature. The tourism sector therefore presents numerous policy development challenges as a result of its complexity and impact on many different economic sectors. It is unsurprising therefore that tourism policy has often been

described as fragmented and poorly defined (Edgell et al., 2008; Hall, 2008; Laslo 2003; Ndivo, Waudo & Waswa, 2013; Scott, 2011). Although tourism infrastructure is important for growth, the WTTC (as cited in Mistilis, 1999) noted tourism infrastructure has inadequate funding, planning and policies in many countries. Mistilis (1999) concludes firstly that the supply side of tourism, including infrastructure, has had inadequate focus with most tourism research focussing on the demand side. Secondly Mistilis (1999) concludes that tourism infrastructure public policy remains absent and even detrimental to growth in the sector. Long periods are required to plan and construct tourism infrastructure, as infrastructure is important for future tourism growth a focus on public infrastructure planning is important.

The focus on much of the tourism research has been on studying tourist expectations and matching demand and marketing efforts (Scott, 2011). The tourism literature does contain a few studies on site specific tourism infrastructure and the interface between transport and tourism (Hassan & Burns, 2014; Seetanah et al., 2011). This literature highlights that public investment in tourism infrastructure often occurs where tourism is a key economic driver (Rasul & Manandhar, 2009; Seetanah et al., 2011); a tourism destination has reached maturity (Beauregard, 1998); there is political will driving the particular tourism development (Rasul & Manandhar, 2009; Seetanah et al., 2011). This literature also problematizes the inadequate funding, planning and policies for tourism infrastructure despite recognition that infrastructure is a foundation of growth in the tourism sector (Mistilis, 1999). Policy and implementation are seen as mutually exclusive (Scott, 2011; Hall, 2008). Tourism infrastructure development can of course proceed in the absence of policy but is neither planned nor the product of vision (Laslo, 2003). This view is supported by the concurrence of several authors that a proper set of policies is the pre-requisite for systematic development of the tourism sector (Hall, 2008; Hassan & Burns, 2014). This is particularly true within the African context where poor tourism development has

had irreversible negative consequences for people and the environment (Salazar as cited in Rogerson, 2012). Much research on tourism policy acknowledges the state's role as a champion of tourism regulation and organisation (Elliot, 1997; Scott, 2011; Zhang, Pine & Qui Zhang, 2000) but there is also a more recent emphasis on the development of tourism policy through consensus building between government, private sector and civil society (Fayos-Solà& Alvarez, 2014) which supports the call for further research into tourism policy as a social process (Stevenson, Airey & Miller, 2008).

In summary, the tourism and infrastructure development literature has several important implications for the research study. Firstly, this literature highlights a positive relationship between tourism, property development and infrastructure development (Beauregard, 1998). Secondly, it emphasises that in order for tourism to retain its prominence as a key economic sector it must retain the attention of political and economic development policy makers(Beauregard, 1998). Thirdly, the literature emphasises that tourism growth requires co-ordinated and integrated policy development and implementation across multiple public and private sector organisations and actors (Hall, 2008; Hassan & Burns 2014; WTTC, 2015). Fourthly, this literature highlights the symbiotic relationship between infrastructure provision, the satisfaction levels of tourists, tourism competitiveness (Dwyer & Kim, 2003; Ritchie & Crouch, 2003; Rogerson & Van der Merwe, 2016) and by implication economic growth. Fifthly, the literature points to gaps in public infrastructure investment policy and development which are key elements that support continued investment by private sector (Mistilis, 1999). Investment in infrastructure can of course continue in the absence of co-ordinated policy and development (Laslo, 2003) but as the literature importantly points out that this results in inefficient public spend (Mistilis, 1999; Rasul & Manandhar, 2009, Seetanah et al. 2011). The gaps in this literature therefore support further research into public sector infrastructure investment policy and

development. Improvements to public sector infrastructure investment and development will encourage further private sector investments.

The tourism and infrastructure development literature also highlights that both the maintenance of tourism infrastructure and the introduction of new tourism infrastructure is critical to support tourism destination competitiveness and tourist satisfaction levels. This literature also emphasises that tourism planning and development cannot take place without infrastructure like electricity, roads; airports and portable water. The critical gaps that this literature identifies is the absence of adequate policies, planning and funding for tourism infrastructure. This supports the research aim of providing a definition of tourism infrastructure. In addition, this literature points to the need for a research focus on the supply, including infrastructure as well as the provision of adequate public sector funding for tourism infrastructure. Both these areas are considered in this research study.

2.3.4 Important tourism models

2.3.4.1 Introduction

Getz (1986) still represents the most comprehensive review of models in tourism planning. The reason for this only becomes obvious when viewed within the broader context of the literature on tourism planning. The advent of tourism spatial models exploded in the 1960s and 1970s (Dredge & Jamal, 2015). In this period tourism planning was influenced by urban and regional planning and landscape architecture. It was during this time that Gunn's model (1972; 1988; 1993); Butler's destination lifecycle model (Butler, 1980) and UNWTO and World Bank spatial models influenced academic work (all as cited in Dredge & Jamal, 2015).

Over the past forty years, two concepts, the Tourism Area Life Cycle (TALC) and destination competitiveness have been a feature of tourism academic discourse. Although these models were not intended to resolve policy challenges, these models have shaped the framing and solutions for tourism destination planning and policy problems. This section provides a discussion of the TALC and various Tourism Destination Competitiveness (TDC) models in relation to research study

2.3.4.2 Butler's (1980) Tourism Area Life Cycle (TALC) Model

Butler (2006) had observed a deterioration in resorts and a consequent decline in tourists. He used the concept of a product cycle to explain this pattern (Butler, 1980), sales of a new product begin slowly, grow rapidly, stabilise and eventually decline. Similarly, a new tourism facility might first attract a small number of tourists, as awareness of the facility grows, tourist numbers will increase. If the facilities decline or new facilities become more attractive, tourist numbers will also decline.

This seven stage model is more popularly known as the TALC. Butler (1980) highlighted that attractions don't necessarily follow all stages as outlined in the model and that in planning for tourism facilities both the public and private sectors did not consider the life span of a tourism area i.e. implicit in planning was that tourist interests in an area would remain constant. Butler (1980) further highlighted that the TALC was conceptual as empirical testing of the model was not possible at the time due to unavailability of data sets.

Butler (2006) has further expressed surprise at the longevity of the TALC model and ascribes this to three factors 1) the simplicity of the model makes for ease of use 2) it appeared at a time when there were few tourism concepts and models 3) it can be modified or adapted.

Prideaux (2000) summarised the following challenges with Butler's model:

1. The inability of one model to explain tourism development (Bianchi, 1994; Choy, 1992 & Prosser, 1995 all as cited in Prideaux, 2000)
2. Problems in applying the tourism life cycle concept in tourism destinations (Agarwal, 1994; Shaw & Williams, 1994 as cited in Prideaux, 2000)
3. Challenges with the concept of the product lifecycle (Hart et al., 1994 as cited in Prideaux, 2000)
4. Conceptual limitation of carrying capacity (Haywood, 1986 & Getz, 1992 as cited in Prideaux, 2000)
5. Determinants of the shape of the curve and turning points (Cooper, 1992 as cited in Prideaux, 2000)
6. Model lacks empirical evidence (Choy, 1992 as cited in Prideaux, 2000)
7. Failure to take into the account the economic market and the role of infrastructure in a tourism destination (Prideaux, 2000)

Prideaux (2000) also highlights that the composition of infrastructure at a tourism destination is often ignored. He points out that TALC does not indicate the planning actions required to move from one stage of development to the next. Further TALC as demand increases the TALC does inform changes or investments required to the supply side which includes infrastructure.

Prideaux (2000) developed a Resort Development Spectrum Model which factored 1) the willingness of owners to invest in new tourism facilities 2) the rate of construction of expanded or new transport facilities to support an increased number of tourists 3) success in attracting new markets and 4) environmental sustainability. Prideaux's (2000) work focussed on an Australian context and explored the interaction of demand and supply in destination development. This dimension is particularly important to consider in the model being developed through this current research study.

More recent work by McKercher and Wong (2021) provides empirical support for Butler's contention that destinations are dynamic and evolve over time. This work supports the idea of multiple, rather than single, life cycles. Butler's (1980) model does offer a conceptual guide for how destinations evolve over time. From a South African perspective most tourism developed tourism space e.g. Cape Town, Durban and Gauteng are likely in the Involvement Stage of the TALC i.e. tourist numbers increase, tourism has become more organised, marketing has increased and public infrastructure including facilities to serve tourists are being improved. Other regions in the country like the Northern and Eastern Cape are still in an Exploration Stage i.e. attracting a small number of visitors. There have also been recent studies which link TALC with TDC (Bazargani & Kiliç, 2021; Kubickova & Li, 2017; Javed & Tučková, 2020) and the role of the public and private sector's in the funding of tourism infrastructure (Mandić et al., 2018) that I will return to later in this chapter.

2.3.4.3 Tourism Destination Competitiveness Models

Competitiveness has been explored from economic and management schools of thought (Hanafiah & Zulkifly, 2019). Tourism researchers have borrowed from the management school of thought notably Porter (1990). The basis of Porter's model is that a country/nations competitiveness is derived from individual firms ability to innovate and improve stemming from Porters view that a nations prosperity is created not inherited (Porter, 1990).

Porter's model although not originally intended for the tourism industry, provided a useful basis for tourism policy recommendations and decisions. It was first explored by Poon (1993 as cited in Hanafiah & Zulkifly, 2019) and has most notably been used by Ritchie and Crouch (1993 as cited in Hanafiah & Zulkifly, 2019) in explaining tourism destination competitiveness.

Research on tourism destination competitiveness emerged in the 1990s (Crouch, 2007). These studies have followed three threads of research 1) understanding the competitiveness of individual destinations 2) focus on particular aspects of destination competitiveness e.g. price competitiveness and destination positioning and 3) the development of general models and theories (Crouch, 2007). Within the last strand of research, several models have been developed and three models are frequently discussed i.e. Ritchie and Crouch (2003), Dwyer and Kim (2003) and Heath (2003). Each of these models will in turn be discussed below.

Ritchie and Crouch (1993) used Porter Diamond Model in the development of the hierarchical Calgary Model of Competitiveness (Hanafiah & Zulkifly, 2019) which was later refined into the Destination Competitiveness and Sustainability Model. The Ritchie and Crouch conceptual model (2003) looks at both the comparative (resources in a destination) and competitive (deployment of resources in a destination) advantages of a destination competitiveness. The hierarchical structure of the model has been critiqued for not being explicit about the causal linkages between the various factors and attributes (Azzopardi & Nash, 2017). Measurement and empirical testing of the model are also not fully resolved e.g. the major factors have been examined in qualitative and not quantitative terms and the order of importance of the factors have not been modelled accurately (Hong, 2009 as cited in Azzopardi & Nash, 2017). The strength of Ritchie and Crouch's model is that it has continually tested, refined, improved and disputed.

Heath (2003) critiqued models of destination competitiveness for use in a South African context as he believed that that they did not place adequate emphasis on key success drivers (i.e. people) and vital linkages (e.g. information management). Heath (2003) tailored a comprehensive framework of sustainable destination competitiveness for South Africa which included enablers such as infrastructure. Heath's model adopted Porter's competitiveness framework and the principal

determinants of both Ritchie & Crouch's and Dwyer and Kim's models (Hanafiah & Zulkifly, 2019). Although Heath's model adds the dimensions of human resource development, communication and information management to tourism destination competitiveness, the model, like Crouch and Ritchie's model, seems to imply a linear relationship between the various components. More importantly, there has been no attempt to operationalise the constructs or empirically test the model. (Azzopardi & Nash, 2017).

Dwyer and Kim's (2003) model of destination competitiveness drew on literature of national and firm competitiveness and aimed to allow country and industry business comparisons for tourism competitiveness. This model contains many of same variables and headings as the Ritchie and Crouch model but differs in that it explicitly recognises 1) demand conditions as being important to destination competitiveness and 2) destination competitiveness is not an end goal of policy making but an intermediate goal towards achieving regional or national economic prosperity (Dywer & Kim, 2003). The biggest critique of the Dwyer and Kim (2003) Model has been related to the validity of the methodology for identifying the indicators in the model (Azzopardi & Nash, 2017). Validity challenges have also been experienced in attempts to test the model which bring into question the results of the study and its views on generalizability. The model also does not weight the different indicators (Azzopardi & Nash, 2017).

The Competitiveness Monitor (CM) Model as proposed by Gooroochurn and Sugiyarto (2005) provides eight indices and 23 components for tourism competitiveness for over 200 countries (Gooroochurn & Sugiyarto, 2005). These indicators are price, technology, openness, infrastructure, social development, human tourism, environment and human resources. The CM model was based on the Ritchie and Crouch (1993) model. It was generated from secondary data gathered from the World Travel and Tourism Council (WTTC) database (Hanafiah & Zulkifly, 2019). The significance of the Gooroochurn and Sugiyarto (2005) is that

it paved the way for Travel and Tourism Competitiveness Index (TTCI) of the World Economic Forum (WEF 2007; Hanafiah & Zulkifly, 2019).

The WEF publishes a Travel and Tourism Competitiveness Index (TTCI) report every two years. The Report is derived from in-depth analysis of existing sources of data and opinion surveys with key industry and thought leaders in the Aviation & Travel Industry of economies around the world. Only three countries in Sub-Saharan Africa (Mauritius, South African and the Seychelles) scored above the global average on the 2019 TTCI (WEF, 2019). The Sub-Saharan region ranks at the bottom of the TTCI, however the region is projected to have the second highest travel and tourism GDP growth rate between 2019 and 2029 (WTTC as cited in WEF, 2019). In 2018, however, African countries travel and tourism GDP totalled approximately $42.1 billion or 1.6% of the global total, with 37.4 million tourist arrivals or 3% of the global total in 2017 (WEF, 2019). The travel and tourism market for Africa is very small and therefore has room for growth.

One of the main criticisms of the TTCI is related to methodology specifically 1) a weak theoretical justification 2) the arbitrary weighting of variables within each pillar 3) the composition of the index, in particular the combination of quantitative and survey data 4) comparison of countries at different levels of development and 5) the reliability and validity of the index and the statistical methods used to support the findings of the index (Pulido-Fernández & Rodríguez-Díaz, 2016).

Pulido-Fernández and Rodríguez-Díaz's (2016) study used an alternative methodology to address the criticism of the arbitrary weighting of variables within each pillar of the TTCI. Using the 2015 WEF data, this method resulted in fundamentally different rankings for all countries in the TTCI. As an illustrative example data for the Top 10 rankings from the study with the comparative WEF 2015 rankings is provided Table 7 below

***Table 7** Pulido-Fernández & Rodríguez-Díaz, 2016 Study Rankings vs WEF 2015 Rankings*

Country	Study Ranking	WEF 2015 Ranking
Taiwan, China	1	32
Hungary	2	41
Chile	3	51
Panama	4	34
Czech Republic	5	37
Bulgaria	6	49
Estonia	7	38
United Arab Emirates	8	24
Romania	9	66
Poland	10	47

Source: Adapted from Pulido-Fernández & Rodríguez-Díaz (2016) Table 3:135

The results of the study demonstrate that with some adjustments the TTCI can provide valuable information on each pillar and in particular the specific pillars that require the attention of policy makers and destination managers in order to improve a destinations competitiveness.

Despite the shortcomings of the TTCI, it can at best inspire improvements and at worst serve as a guideline for countries invested in maximising benefits derived from the tourism sector. In recognition of the TTCI as a useful tool attempts have been made in South Africa to customise the TTCI indicators to be specific and relevant for South Africa (Republic of South Africa, 2015). This study highlights the following biases with regards to the TTCI:

1. A destination's geographic location and proximity to key source markets impacts on the rankings which is an obvious disadvantage for most African countries whose key source markets are from Europe or America
2. The same measures are applied to developed countries, where data is readily available, and developing countries where finding suitable data for each measure is challenging, very unsurprising then that most developing countries rank at the lower end of the TTCI.

This study argues that there are no absolute competitive measures for tourism as wide and complex reasons motivate the destination choices made by tourists (Republic of South Africa, 2015d). The intention of the study was to highlight areas which stakeholders and policy makers could act upon to improve the competitiveness of South Africa. The study highlighted that the most pressing concern for South Africa was Safety and Security (Lubbe et al., 2015). Mobility and Infrastructure in particular public transport and the quality of rail and roads required attention. Value for money, in particular the cost of air travel and price competitiveness were also important factors for South Africa (Lubbe et al., 2015). The study ultimately recommended that existing destination competitiveness models should include mechanisms to highlight the unique features of a destination and rank destinations against their main competitors rather than the entire globe (Lubbe et al., 2015).

A further study to identify the indicators and factors for Provincial competitiveness of the domestic market in South Africa was also concluded (Lubbe et al., 2016). When choosing a domestic holiday destination respondents viewed the five most important indicators as water, safety and security, electricity, service quality and a clean/hygienic environment (Lubbe et al., 2016). The five least important factors identified by respondents were wildlife and package tours, recent South African history, nature reserves/national parks and world heritage sites. The importance of safety and security as a competitiveness factor correlated with the views of international travellers from the 2015 study but the views on wildlife differed as from an international perspective wildlife contributed significantly to South Africa's competitiveness (Lubbe et al., 2015).

Cronjéa & du Plessis (2021) offer a further critique of research on destination competitiveness in that they often have a supply side focus relying on opinion surveys of tourism experts rather than understanding competitiveness from a demand or tourists perspective. Their study conducted an opinion survey of

international tourists to South Africa and found safety and security is an important competitiveness factor from both a supply and demand perspective. Unique tourism attributes (which includes hospitality of people, climate, access to world heritage site and a variety of recreational facilities) was ranked as the most important competitiveness factor. Tourism Services (which includes value for money, effectiveness of public transport, availability of car hire, quality of food) was ranked as the second most important competitiveness factor.

These studies are of course not conclusive but do point to the need for further customisation of the TTCI to provide a more nuanced perspective on the competitiveness of destinations.

Luštický and Bednářová (2018) explored the application of TDC models to planning practices in six Czech regions. Their study found that tourism planning practices included a strong marketing focus but neglected the physical infrastructure and tourism attractions. They emphasised, correctly, that while marketing is important, it is meaningless in the absence of attention to infrastructure as good infrastructure provision has a strong correlation to positive perceptions of a destination by tourists.

2.3.4.4 Linking the Tourism Area Life Cycle and Tourism Competitiveness

Bazargani and Kiliç (2021) using panel data from 2015 - 2019 revealed that Tourism Competitiveness is a driver of tourist flows and tourism GDP contribution for all regions and income groups globally. This same study revealed that infrastructure is the universal driver of tourism performance, health and hygiene and safety and security are also very important (Bazargani & Kiliç, 2021). Bazargani & Kiliç (2021) also found that the tourism competitiveness dimensions of policy and enabling conditions i.e. price competitiveness, environmental sustainability and prioritization of travel and tourism appear to be most relevant for improved

tourism performance particularly to encourage intra-regional travel e.g. the Schengen Visa for the Europe. For the America's, the natural and cultural resources are very important for tourism performance but interestingly this pillar is least significant for performance of the low/middle income regions. This coupled with poor infrastructure rankings would explain the low tourism competitiveness rankings of most African countries despite the abundance of natural and cultural resources.

Transport infrastructure and technology in particular contributes to an increase in tourism arrivals and related GDP increases in all regions with the exception of Europe where infrastructure supports increases in GDP contribution only but not tourist arrivals(Bazargani & Kiliç, 2021). Europe has established world class transport and tourism infrastructure which tourists have come to expect as part of the tourism experience, but for other regions especially Africa, Asia and the Middle East and North Africa (MENA) infrastructure is a major determinant of tourism performance (Bazargani & Kiliç, 2021). This supports an earlier finding by Mandić et al. (2018) linking destination competitiveness with the Tourism Area Life Cycle (TALC) that argues that tourism infrastructure is an essential precondition for destination competitiveness in early/new tourism destinations and becomes a competitive advantage in maturing tourism destinations. Bazargani & Kiliç's (2021) study strongly suggest that focussed attention to tourism competitiveness factors would increase tourist numbers and tourism's GDP contribution.

Kubickova and Martin (2020) suggest that governments could use the TALC to understand their country's position and inform strategies and actions to improve destination competitiveness. As cited above, Mandić et al. (2018) argue that tourism infrastructure is an essential precondition for destination competitiveness in early/new tourism destinations and becomes a competitive advantage in maturing tourism destinations. They also makes a case for different roles and

responsibilities to be assigned to the public and private sectors for tourism infrastructure development at different stages of tourism destination development i.e. public sector taking more responsibility in early/new tourism destinations and the private sector taking more responsibility in maturing/matured tourism destinations. This particular finding has also been supported by other researchers (Kubickova& Li, 2017; Javed & Tučková, 2020).

2.3.4.5 In summary

Azzopardi and Nash (2017) suggest that no set of competitiveness factors is applicable to all destinations, the need still exists for further empirical studies and applied research to explore and apply different indicators in different contexts. In a comprehensive review of tourism destination competitiveness models Hananfiah and Zulkifly (2019) conclude that a comprehensive TDC model has yet to be developed and applied to all countries. This is certainly supported by South African researchers (Lubbe et al., 2015; Cronjéa & du Plessis, 2021) who have pointed out the shortcomings in application of TDC for South Africa.

Of the 36 destination competitiveness attributes examined, Crouch (2011) found that Tourism Superstructure and Infrastructure were two of the ten most important attributes. Bazargani & Kiliç (2021) support this finding with their study revealing that infrastructure is the universal driver of tourism performance. Dwyer and Kim (2003) highlight that many of the factors underlying destination competitiveness are 'public goods' and government therefore has an important role to plan in achieving and maintaining destination competitiveness. They suggest that governments need to continually enhance and develop new destinations and products in order to maintain a destinations competitiveness. Mandić et al. (2018) argue that tourism infrastructure is an essential precondition for destination competitiveness in early/new tourism destinations and becomes a competitive advantage in maturing tourism destinations and make a case for

assignment of different roles and responsibilities to the public and sectors depending on the stage of development that destination finds itself in terms of the TALC. In addition to infrastructure, safety and security emerges as an important competitiveness factor from both a supply and demand perspective (Cronjéa & du Plessis, 2021; Bazargani & Kiliç, 2021).

As Kubickova and Martin (2020) suggest, TALC and TDC are helpful in understanding a country's position and can be used to inform strategies and actions to improve destination competitiveness. They therefore serve as very useful conceptual frameworks. Butler's (1980) model does offer a conceptual guide for how destinations evolve over time. Bazargani & Kiliç (2021) indicate that especially Africa, Asia and the Middle East and North Africa (MENA) infrastructure is a major determinant of tourism performance. It therefore stands to reason that the Africa, Asia and MENA regions should prioritise the development of critical infrastructure such as roads, airports and harbours as well as tourism service infrastructure to support improved performance of their tourism sectors (Bazargani & Kiliç, 2021).

From a South African perspective most tourism developed tourism space e.g. Cape Town, Durban and Gauteng are likely in the Involvement Stage of the TALC i.e. tourist numbers increase, tourism has become more organised, marketing has increased and public infrastructure including facilities to serve tourists are being improved. Other regions in the country like the Northern and Eastern Cape are still in an Exploration Stage i.e. attracting a small number of visitors. Some regions of the country like Johannesburg and Cape Town that have well developed tourism infrastructure can now have the private sector take over the role of tourism infrastructure investment. However, in other regions of the country like the Northern Cape and Eastern Cape, there is still a strong need for investment by the public sector into tourism infrastructure before the private sector can take over this role.

The models of the Tourism Area Life Cycle and Destination Competitiveness have continued to shape the trajectory of tourism research, but the challenge with these models is that they assume that the infrastructure required for tourism is already in place and as a consequence little attention is focussed on planning for tourism infrastructure. Given the importance of infrastructure to tourism development, deliberate planning of tourism infrastructure is imperative.

2.3.5 The South African context of public sector tourism planning

In government planning, the mandate derived for the tourism function comes directly from the Constitution. This mandate is then cascaded into policy, legislation and strategies. The policy and strategies related to the tourism sector, as listed below, will be further outlined in this section.

1. Tourism Act, 1993 (Act No. 72 of 1993)
2. White Paper on the development and promotion of tourism in South Africa (Republic of South Africa, 1996) – herein after referred to as the White Paper
3. Tourism Act, 2014 (Act No. 3 of 2014)
4. National Development Plan (National Planning Commission, 2013)
5. National Tourism Sector Strategy (Republic of South Africa, 2017)

The Tourism Act, 1993 (Act No. 72 of 1993, Republic of South Africa Government, 1993) served four purposes. Firstly, the Act made provision for the South African Tourism Board which would be responsible for marketing, regulation and co-ordination of the South African tourism sector. Secondly, the Act made provision for a system of grading/classification of accommodation establishments. Thirdly, the Act made provision for the registration of Tourist Guides. Fourthly, the Act repealed all previous Apartheid legislation related to tourism.

The White Paper on the development and promotion of tourism in South Africa (Republic of South Africa, 1996) was published in 1996. The White Paper was a visionary document which made a compelling case for tourism as a key economic sector at a time when the contribution of tourism to the GDP of the country was relatively small at 2 % (Republic of South Africa, 1996). The White Paper envisaged that tourism in South Africa would be government led, private sector driven and community based. In addition to the business case of tourism, the White Paper set out a number of priorities amongst which were product development, transportation (land and air), infrastructure development, marketing, investment incentives, finance for tourism and safety and security. An important outcome of the White Paper was that both marketing and development tourism functions were allocated to the Marketing Entity, the South African Tourism Organisation (SATOUR) which was the precursor of South African Tourism. The White Paper aim of assigning all aspects of tourism to the National Tourism Organisation was that government structures lacked the flexibility, agility, capability and budgets to drive rapid tourism development. Provincial Tourism Organisations which were seen as the drivers of the tourism industry. The organisation and structure of these entities was deferred to Provinces but the White Paper suggested that these should be statutory bodies similar to the National Tourism Organisation and that there should be consistency across Provinces. It also recommended that Provincial Organisations should set up Local Organisations and work closely with communities to realise tourism development. The White Paper also suggested that the structure at a Provincial level should closely mirror the structures at a National level. The critically important role of Tourism Product Development was assigned to Provinces.

Interestingly, the White Paper also recommended that a separate Department of Tourism should be established in order to drive tourism development in South Africa but recognised that at the time this might not be possible. This particular recommendation was implemented only 14 years later in 2009 when the National

Department of Tourism became a stand-alone Department. This had very interesting implications, a point that I will return to later. The White Paper was also quite explicit about the product development, transportation and infrastructure. Infrastructure for tourism was recognised as being extremely important and wide ranging, and included rail and road networks, telecommunications, convention and conference centres, information centres and signage. The White Paper further recognised the need for continuous maintenance and upgrading of existing infrastructure in order to improve accessibility and mobility; improving the accessibility and infrastructure of rural areas; the utilisation of digital platforms to market and promote tourism information, services and products to domestic and international markets; facilitate the funding of major tourism infrastructure projects; embrace regional integration through the development of major tourism infrastructure projects; improve transportation services and review the signage policy; have a long term strategy for the expansion of tourism infrastructure rather than *ad hoc* developments; pay attention to environmental and heritage considerations in the provision of bulk services, and co-ordinate the provision of tourism infrastructure through close collaboration with the Departments of Transport, Public Works and Land Affairs.

It is the belief of this researcher that the vision of the White Paper was lost in translation in the promulgation of the Tourism Act, 2014 (Act No. 3 of 2014, Republic of South Africa Government, 2014) which repealed the Tourism Act, 1993 (Act No. 72 of 1993, Republic of South Africa Government, 1993). The stated purpose of the Tourism Act, 2014 (Act No. 3 of 2014) is "to promote the practice of responsible tourism for the benefit of the Republic and for the enjoyment of all its residents and foreign visitors; provide for the effective domestic and international marketing of South Africa as a tourist destination; promote quality tourism products and services; promote growth in and development of the tourism sector, and enhance cooperation and coordination between all spheres of

government in developing and managing tourism." This researcher is of the view that the Act does not achieve this purpose and is very narrowly focused on matters of compliance. The Act is silent on the role of tourism development and the responsibilities of various public and private sector partners in the development of tourism. Not unlike the Tourism White Paper, the Act assigns a very limited role to the National Department of Tourism. The express purpose of the Tourism Act, 2014 (Act No. 3 of 2014) was to ensure alignment with the South African Constitution and act as a framework[14]. The previous Tourism Act, 1993 (Act No. 72 of 1993) had been published prior to the approval of the Constitution (Republic of South Africa, 1996) by the Constitutional Court on 4 December 1996, effective 4 February 1997.

The National Development Plan (NDP) is the 2030 vision for the country. It envisions rising employment, productivity and incomes as a way to ensure a long-term solution in achieving a reduction in inequality, an improvement in living standards, and ensuring a dignified existence for all South Africans. Tourism does get a few honourable mentions in the NDP as a sector with growth potential, and for its ability to contribute to increasing exports, fostering regional integration and advancing rural economies (National Planning Commission, 2013). The Re-imagined Industrial Strategy identifies tourism as one of the seven national priority sectors. The National Tourism Sector Strategy (NTSS) guides the strategic development and growth on the tourism sector in pursuit of NDP targets. The Tourism Sector Recovery Plan (TSRP) sets out interventions to ignite the recovery of the tourism sector, and to place it on the path to long-term sustainability while contributing to the implementation of the Economic Reconstruction and Recovery Plan (ERRP). The recognition of tourism as a key economic driver in all of these documents has unfortunately not translated into increased budget allocations.

[14]Discussion between the researcher and a member of staff at the Department of Tourism 19 May 2022

The National Tourism Sector Strategy (NTSS) was published in 2017. This strategy replaced the National Tourism Sector Strategy which was approved by Cabinet in 2011. The key reason for this updated strategy was to ensure alignment with the National Development Plan (NDP, 2012) and Tourism Act No. 3 of 2014. The vision of the NTSS is to ensure inclusive economic growth through tourism that maximises the country's competitive advantage in nature, culture and heritage.

The Constitution stipulates that the responsibility of tourism is shared between the three spheres of government to ensure that there are sufficient resources to facilitate tourism development. While much effort has gone into capacitating the national and provincial tiers of government in terms of tourism development, the local sphere in some areas of the country still lags behind. This leads to uneven tourism development in the country.

Many tourism functions, e.g. marketing and promotion, product and policy development, are provincial competencies. The role of local tourism planning is particularly relevant where tourism plays an important economic role at a local level. Local government is the primary vehicle for service delivery to communities. The IDPs are the basic tools of delivery. The IDP is a legal requirement intended to integrate sectoral priorities and projects within a developmental orientated spatial framework based on extensive community consultation.

The National Tourism Sector Strategy (NTSS, 2011) identified the lack of knowledge/ understanding of tourism and its significance for local economic development amongst policy makers and officials at a local level as a major impediment to growing the local tourism economy. Notwithstanding the continued growth of tourism in South Africa, optimal growth of the tourism economy is hampered by inadequate and/or uneven capacity levels in respect of planning and development, resulting in *inter alia*: - inadequate infrastructure to facilitate tourism; lack of capacity building or training at municipal level;

inadequate allocation of resources to local tourism development and lack of political buy in from policy makers.

I return to my earlier observation regarding the implications of the decision to create a separate Department of Tourism only in 2009, 14 years after the recommendation was made in the White Paper. Between 1996 and 2014, the White Paper served as the guide for tourism development in South Africa. It has resulted in a very limited historical role for National Government which was up until 2009 represented by a Chief Directorate within the Department of Environmental Affair and Tourism and a disproportionate responsibility was assigned to the National Tourism Organisation which has over the years evolved into South African Tourism. Since 2009 there has been a stand-alone National Department of tourism but this historical disjuncture is still evident in 2022/23 budget allocation where South African Tourism receives R 1 329 206 or 53% of the total tourism budget allocation of R 2 491 580.

The second implication is that Provinces operated as separate and independent entities until 2009, resulting in differentiated tourism development across the country. The Western Cape, for example, in 2022/23 has no budget for any destination development activities and has allocated all of its funding to the Provincial Marketing Agency. One might argue that there is little need to development in the Western Cape but the Tourism Blueprint developed by the Western Cape team actually points to a real need to develop diversified tourism products beyond the City of Cape Town. The structure in Provinces does mirror the structure at National Government with most Provinces having both a Tourism Agency (responsible for marketing) and a Chief Directorate located often within Economic Development (responsible for tourism Development).

There are differing levels of skill a local government level and tourism is often referred to as an “unfunded mandate” by local government. All spheres of

government have a mandate for tourism but local government just does not fund tourism. This observation is supported by Rogerson (2013) that tourism has a very low priority for financial support at local government level and receives almost no funding, particularly in less resourced municipalities. Rogerson (2013) further highlighted the urgent need for capacity building of municipal officials in tourism planning. Nel and Rogerson (2016) also found in data from 278 municipalities that while tourism was the highest ranked Local Economic Development (LED) strategy adopted by the municipalities, the actual support and investment in tourism facilities was actually very low. Nel and Rogerson (2016) attribute this ranking to the prominence of tourism in national policy.

The Department of Tourism (2015) found in a study that there are over 700 un/underutilised infrastructure tourism assets at a local government level. Rogerson (2020) highlights that these municipal assets are often in a very poor condition. At a local government level, tourism development is often not implemented due to funding and capacity constraints, and lack of support. Rogerson (2020) recommends that an asset management framework be developed specifically for tourism assets in South Africa. The Department of Tourism does in fact have a broader plan to commercialise these unproductive infrastructure assets at a local government level through the creation of a Budget Resort Network and Brand. A pilot study has been run for this project but its full implementation will require a significant initial capital injection which the Department simply does not have.

At a National level funding for infrastructure projects is derived largely from the funding received for the Working for Tourism Expanded Public Works Programme. The Working for Tourism (WfT) Expanded Public Works Programme (EPWP) budget has been reduced by R81,579 million since 2020/21[15]. The ENE budget allocation in 2020/21 was R363,057 million which was reduced to R 281,478

[15] National Department of Tourism Annual Performance Plan Presentation to the Portfolio Committee on Tourism 3 May 2022

million in 2022/23. The budgets for 2023/24 and 2024/25 are R282,944 million and R292,058 million respectively over the MTEF period. This budget funds both tourism skills and infrastructure development projects. The decreased budget will severely affect the future of tourism infrastructure projects.

The National Department of tourism has crafted a Destination Development which is intended to create a pipeline of tourism projects for progressive implementation from initial concept, through feasibility, investment promotion, implementation, operations and handover. This pipeline of projects is informed by both demand and supply analysis. The approach commences with wider area long term regional planning through destination level planning into the finer planning at a tourism precinct level. There are three principles that guide this approach to destination development. The first is that tourism infrastructure development that serves the needs of citizens will also serve the need of tourists i.e. it is not necessary to create separate infrastructure just for tourists. The second principle is that decisions on tourism infrastructure investment must be aligned with broader regional economic development imperatives. The third principle is tourism infrastructure investment must support spatial inclusion and transformation.

2.4 Conclusion

This chapter connected the research study to the literature drawn from scholarly work in infrastructure, tourism, economics, and planning. In brief, there is fragmentation in both infrastructure and tourism planning. Integrated planning for each of these areas as individual sectors is challenging. In the context of reduces budgets and a scarcity of skills for both infrastructure and tourism, an integrated tourism infrastructure planning model is no longer just desirable but rather a necessity. History will judge South African public planning very poorly if the lack of service delivery continues to hamper economic growth and social well-being. The development of model for integrated tourism infrastructure is

considered a timely public sector intervention give the current context of public sector planning in South Africa.

The links between the specific research objectives and the detailed literature in this chapter are summarised in Table 8 below.

Table 8 Connecting the specific research objectives to the literature

Specific Research Objective i. Undertake a systematic empirical understanding of the current processes used for tourism infrastructure public sector planning in South Africa to identify the integration challenges. **Connection to the literature** • A reduced focus on tourism planning at an international level and a conspicuous gap in South African scholarship which supports the deliberate focus of this research study on tourism planning. • The lack of a systematic and consistent guideline for how to achieve integration results in continued fragmented planning and a lack of integration. • The state's role as a champion of tourism regulation and organisation. • Tourism growth requires co-ordinated and integrated policy development and implementation across multiple public and private sector organisations and actors. • TALC and TDC are helpful in understanding a country's position and can be used to inform strategies and actions to improve destination competitiveness. • Assignment of different roles and responsibilities to the public and sectors depending on the stage of development that destination finds itself in terms of the TALC • Factors underlying destination competitiveness are 'public goods' and government therefore has an important role to plan in achieving and maintaining destination competitiveness. • Present tourism planning practices in South Africa have not resulted in the geographic spread of tourism benefits nor the maximisation of the use of the tourism infrastructure asset base **Significance of the specific research objective in relation to the literature** Integrated planning in South Africa is a challenge. Tourism growth is best achieved through integration. A systematic empirical understanding of the integration challenges in current processes used for tourism and infrastructure planning is the first step towards improving integration; destination competitiveness and by implication the economic impact of the tourism sector.
Specific Research Objective

ii. Determine the key elements that are required to develop an integrated model for tourism infrastructure planning undertaken by the public sector in South Africa.

Connection to the literature

- There is no common or consistent definition of tourism infrastructure in the literature
- Current definitions of infrastructure exclude key tourism assets. The infrastructure definition which only encompasses a role for the public sector, negates the role that the private sector has to play in tourism infrastructure development
- There are no clear models for infrastructure integration
- Although infrastructure integration is desirable, it is complicated to achieve as infrastructure planning involves many different actors, is context specific, has different planning, governance and ownership frameworks
- Tourism planners don't provide the language/framework of tourism for use by other professionals
- There is a need for tourism professionals to better understand both infrastructure and urban and regional planning processes in order for them to better advocate for policies, planning and funding of tourism infrastructure for further development and growth of the sector

Significance of the specific research objective in relation to the literature

- A positive relationship between tourism, property development and infrastructure development.
- For tourism to retain its prominence as a key economic sector it must first retain the attention of political and economic development policy makers.
- Private sector investment in the tourism sector will only take place when the public sector has invested and indicates that cities are central in the growth of tourism.

Significance of the specific research objective in relation to the literature

An understanding of the key elements of a model for integrated infrastructure planning will

- assist to develop a common and consistent definition of tourism infrastructure for use by the South African public sector;
- inform the intersection between the public and private sectors and importantly distinguish between the roles and responsibilities of these different parties;
- also enable the public sector to better advocate for policies planning and funding of tourism infrastructure for further development and growth of the sector.

Specific Research Objective

- Develop and test a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa.

Connection to the literature

- Planning provides a strategic overview of infrastructure needs and assists in regulating and funding infrastructure development and management

- Infrastructure planning is complex; planners are challenged with managing planning processes and infrastructure providers are challenged with engaging with complex planning frameworks.
- Infrastructure planning follows historical patterns of silo planning which results in higher costs and risks.
- There are gaps in integrating infrastructure, land use and spatial planning
- The symbiotic relationship between infrastructure provision, the satisfaction levels of tourists, tourism competitiveness and by implication economic growth
- The critical gaps that this literature identifies is the absence of adequate policies, planning and funding for tourism infrastructure. In addition, this literature points to the need for a research focus on the supply, including infrastructure.
- The absence of co-ordinated policy and development results in inefficient public spend
- The lack of integrated planning results in misalignment between infrastructure development and capital investment strategies
- Historically, there has been a focus on tourism marketing rather than tourism planning with resultant public and private sector spend being concentrated on marketing in the belief that this is the only way for tourism to develop.
- Tourism has been unplanned in most countries but the deliberate planning for tourism and the integration of tourism with other sectors is critical if tourism is to serve as a driver of regional economic development
- Infrastructure is the universal driver of tourism performance and destination competitiveness.
- Tourism infrastructure is an essential precondition for destination competitiveness in early/new tourism destinations.
- Prioritisation of the development of infrastructure such as roads, airports and harbours as well tourism service infrastructure supports improved performance and competitiveness of tourism particularly in Africa.
- Governments need to continually enhance and develop new destinations and products in order to maintain a destinations competitiveness.
- Safety and security emerges as an important competitiveness factor from both a supply and demand perspective

Significance of the specific research objective in relation to the literature

In the long term, improvements to integrated public sector tourism infrastructure planning should yield greater public sector investment, encourage further private sector investment and ultimately support the growth and competitiveness of the tourism sector. The development of a model for integrated tourism infrastructure planning is intended to assist improvements in integrated public sector planning.

The real gap in the tourism literature is that it assumes that the infrastructure base to support tourism is already in existence and therefore the literature does not explicitly

address infrastructure planning for tourism except in the cases where infrastructure is specifically being built for tourism. This research is intended to address this critical gap through the development of a model for integrated tourism infrastructure planning for the South African public sector.

(Source: Researcher's own construction)

The next chapter presents the research method.

Chapter 3

3 Research Method

3.1 Introduction

The preceding chapters have contextualised and provided background information for the study and outlined the theoretical framework through a review of the literature. The research method is detailed in this chapter. The research design is outlined and an overview of the data collection, data analysis and the criteria to assess the quality of the research are presented. Lastly, the ethical considerations that underpin this research are described.

This was a multi-method qualitative study. Various methods like literature and document reviews, key informant interviews and focus groups were utilised in this study. The research aimed to develop and test a model for integrated tourism infrastructure planning undertaken by the South African public sector. The research question explored in this study was: "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the South African public sector?"

The empirical research process is summarised in Figure 7 below. The research philosophy underpinning the study is Pragmaticism which is further detailed in Section 3.2. An inductive approach to theory development was followed, this is outlined in Section 3.3. The research design is outlined in Section 3.4. This section provides details on the unit of analysis and the case study strategy. Section 3.5 covers the research techniques and procedures and outlines the data collection and data analysis for the study. Section 3.6 outlines the quality of the research findings and Section 3.7 describes the ethical consideration for the study.

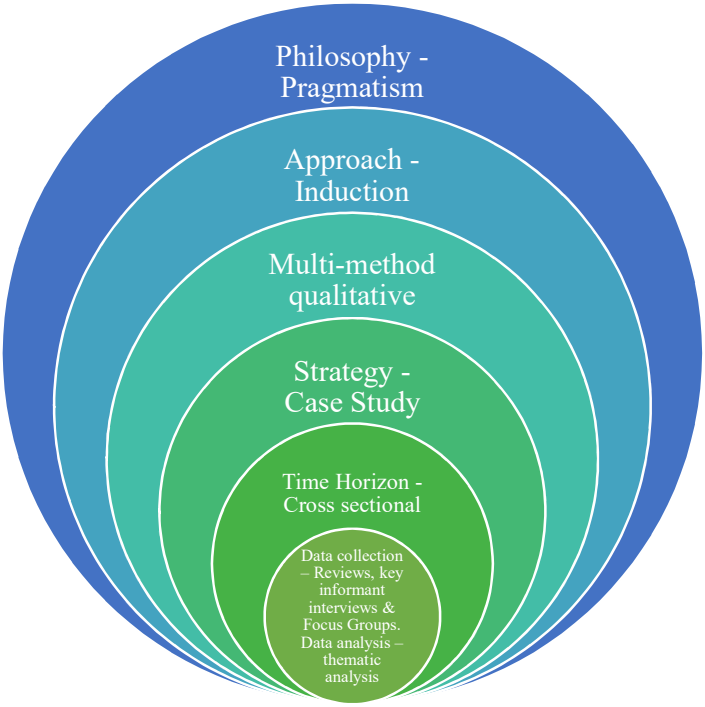


Figure 7 The Empirical Research Process (Source: Adapted from The Research "Onion" Saunders, Lewis & Thornhill 2016: 124 Figure 4.1)

3.2 Research Philosophy

The philosophical underpinning of the study was Pragmatism. Pragmaticism is a philosophy that ascribes the meaning of ideas to their practical applications i.e. "the function of thought is to guide action" (Merriam Webster, n.d.). Pragmaticism is primarily concerned with how knowledge or theories translate into practical application. Pragmatic research provides practical solutions to inform future practice. As sketched in the Preface to this thesis and Section 1.2., the research problem is a real life problem. This study lies at the intersection of real life and research and its primary motivation is finding practical solutions for public sector delivery of tourism infrastructure in South Africa. The researcher concurs with Flyvbjerg (2012:25) that research "*must address problems that matter to groups in the local, national and global communities in which we live*".

Kelly and Cordeiro (2020) affirm pragmatism as a philosophy that lends itself to rigorous, quality-driven public sector research that is aimed at improving practice and policy. These authors highlight three central methodological principles that guide pragmatic research 1) knowledge must be actionable 2) experience, knowledge and action are interconnected and 3) research is an experiential process.

The principle of actionable knowledge grounded in the experiences of both the participants and the researcher has been central in this study. At a research design stage, this principle enabled a clear framing of the research question and determined the research focus on the most relevant elements within the complex public sector planning system. This is outlined in further detail in Section 3.4. Pragmatism is geared towards knowledge generation that can immediately be translated into practice. Pragmatism guided the research sampling strategies by assisting the identification of information rich participants with practical skills, experience and knowledge who provided a variety of perspectives to inform the development of a model for integrated tourism infrastructure planning for the South African Public Sector.

Pragmaticism as a paradigm also underpinned the data collection phase of the study and informed the data collection methods, the researcher's position and the ethical considerations for data collection. Pragmaticism does not dictate the choice of research methods but rather provides a framework that allows researchers to find the most appropriate methods (Kelly & Cordeiro, 2020). Key informant interviews allowed the researcher to access the knowledge and experience of participants which also enriched the document review process e.g. participant LG1 shared historical planning working documents following an initial interview, the researcher was not only able to review these documents but through further engagement with the participant tapped into the institutional memory of the challenges and problem solving which led to successful

implementation. The focus groups also served as a way to triangulate information from individual key informant interviews, the discussions and debates between participants assisted with understanding the convergence of themes.

The positionality of the researcher is articulated in the preface. Throughout the research process, the researcher has been consciously aware that her current role within the National Department of Tourism both facilitates access to information and to research participants, but also places additional responsibility on her not to abuse this position. Pragmaticism allows for the exploration of how social interactions shape individual knowledge, experience and action (Kelly and Cordeiro, 2020). In this study, the researcher was careful to reflect participants ways of knowing, experience and action e.g. to ensure that any researcher bias was mitigated, all engagement with participants were translated verbatim and detailed notes from each engagement was shared with participants inviting further inputs and clarification. This ensured that both the actual engagement as well the intention of participant inputs were properly recorded. The researcher and participants engaged in open discussions in both the interview and focus group processes. Positionality of the researcher, reflexivity and ethical consideration are outlined in further detail in Section 3.7.

3.3 Approach to theory development

Inductive research is described as a bottom up approach that starts with the observed data to build theory (Panke, 2018). The research followed an inductive approach where data was collected and analysed in order to formulate theory. The theory that was developed through this research was a model for integrated tourism infrastructure planning for the South African public sector. To describe the inductive approach of this study, the steps followed in the research are simplified below:

Step 1: Using document and literature reviews and the researcher's own considerable experience in public sector planning, the current system of planning and suggested elements for the model were mapped (See Figure 8) in the research proposal phase.

Step 1: Data was collected through the document reviews and key informant interviews. Appendix 7 contains the questions for the semi-structured key informant interviews. The semi-structured interviews, were designed to gather the views of key informants on the current system of planning, thoughts on areas of improvement and suggested elements for the model. Once all the questions in the semi-structured interview had been responded to, thereafter, the researcher briefly explained Figure 8 and invited further inputs from interview participants. Data collection is explained in further detail in Section 3.5.1.

Step 2: The researcher completed verbatim transcriptions of all key informant interviews (N=26). The information from the key informant interviews was utilised to 1) refine the definition of tourism infrastructure and 2) develop the model for integrated tourism infrastructure planning in South Africa. The researcher manually coded the data from the key informant interviews. Codes for the definition of tourism infrastructure from the individual interviews was formulated into a Word Cloud, Figure 23, where the size of the words correlated with the number of times that the word was mentioned. Codes for the elements of a model for integrated tourism infrastructure planning were generated using the initial elements for inclusion in the model as identified by the researcher. Data analysis outlined in further detail in Section 3.5.2.

Step 3: The first forms of the model were presented to the first two focus groups to illicit further inputs. Inputs received from the focus group were used to refine the model. The different versions of the model are contained in Chapter 5.

Step 4: Through document reviews, the researcher conducted an analysis of the applicability of the model to the Karoo Region in South Africa. The third focus group was utilised to test the applicability of the model for use in the South African public sector. Feedback received from focus group participants was utilised to further refine the model.

Step 5: Chapter 4 and Chapter 5 contain the details of the data collected and analysed through the case studies; and interview and focus group processes respectively. The culmination of the inductive research is the model for integrated tourism infrastructure planning for the South African public sector which is presented in Chapter 6.

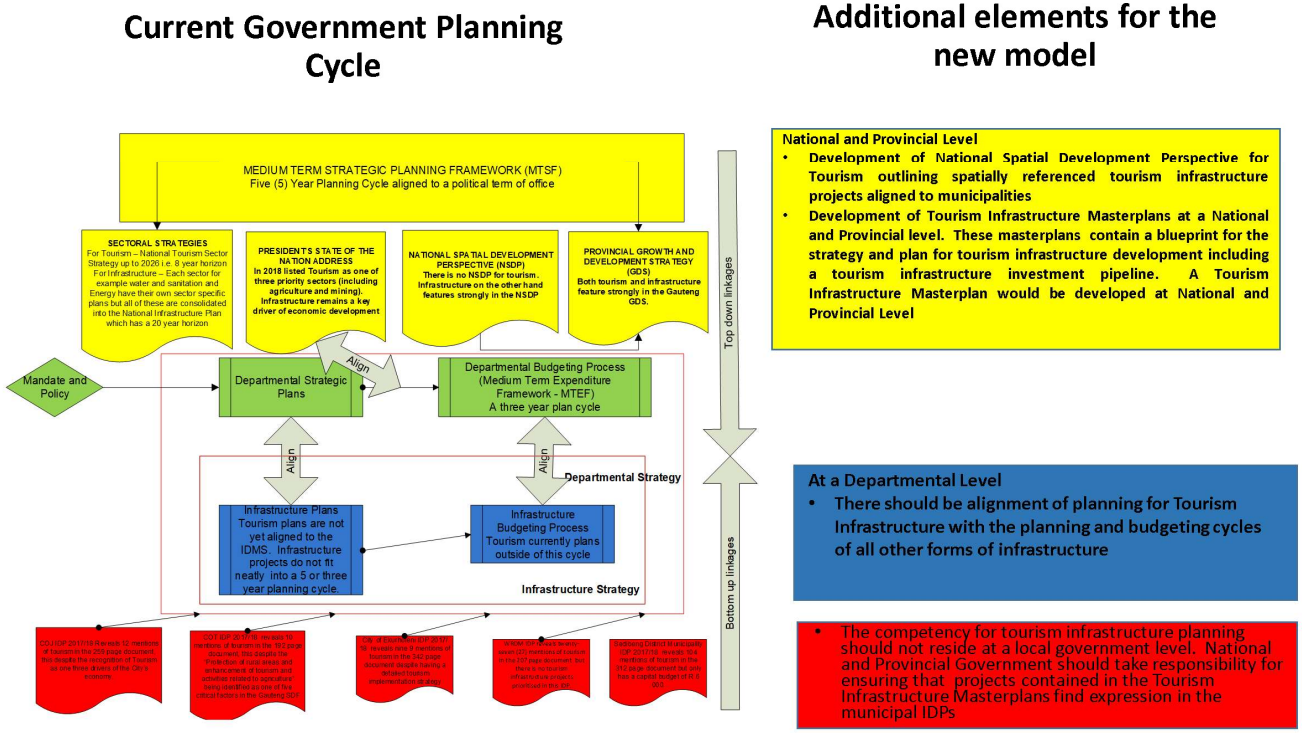


Figure 8 A graphic representation of the current status of the tourism and infrastructure planning system for Gauteng, South Africa (adapted from the South African Public Sector Infrastructure Planning Cycle from Republic of South Africa – National Treasury 2006) *(Figure on the left hand side) Diagram shared with key informant interview participants expressing the researcher's perspective on the current government planning cycle and suggested elements for a new model of a new model(blocks on the right hand side)*

3.4 Research Design

The research question was "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa?" Within public sector planning, tourism is the responsibility of all levels of government. In total there were 29 participants in this study. Participants were drawn mainly from the public sector (N=25) with a few private sector (N=4) participants. Further details on the study participants are outlined in Section 3.5.1.1. Table 9 below outlines in more the detail the research objectives, techniques, strategy and participants/case study as set out in the Research Proposal.

Table 9 Summary of research objectives, strategy, techniques, population and sample

Research Objective	Research Strategy	Research Techniques	Population for this objective/method	Participants/Case Study
Specific Research Objective 1: Undertake a systematic empirical understanding of the current processes used for tourism infrastructure public sector planning in South Africa to identify the integration challenges. Specific Research Objective 2: To determine the key elements required for an integrated model for tourism infrastructure planning undertaken by the public sector in South Africa.	Qualitative interviews	Semi-structured interviews with key informants and focus group/s will be utilised.	The research population of the system of tourism and infrastructure planning in the country is comprised of Departments across various spheres of government.	The semi-structured key informant interviews and focus groups included representatives from the following organisations: i. National Treasury, specifically the team responsible for the Infrastructure Delivery Improvement Programme. ii. National Department of Public Works and Infrastructure Development which manages the accommodation and infrastructure needs of national government. iii. National Department of Transport which is a government department responsible for the regulation of transportation. iv. National Department of Tourism tasked with developing national tourism policy and managing tourism destination development. v. South African Local Government Association (SALGA) which is a voluntary organisation of all 257 local municipalities. vi. National Department of Co-operative Governance (DCoG) supports the development and implementation of comprehensive infrastructure and maintenance plans in municipalities. vii. Industrial Development Corporation (IDC) is an Agency of the Department of Trade and Industry which provides

Research Objective	Research Strategy	Research Techniques	Population for this objective/method	Participants/Case Study
				development funding to various industrial sectors including tourism. viii. Gauteng Provincial Government, in particular officials involved in planning and tourism, as well as the Cradle of Humankind World Heritage Site. ix. West Rand District Municipality and Mogale City Local Authority in particular tourism and Infrastructure officials. x. Western Cape Provincial Government specifically tourism officials. xi. City of Cape Town specifically tourism officials xii. South African National Parks specifically officials responsible for infrastructure. xiii. Development Bank of Southern Africa specifically infrastructure officials. xiv. Private sector representatives for tourism from the Tourism Business Council of South Africa, V&A Waterfront, and the Karoo Development Foundation. An opportunity also arose to interview independent consultant who had been involved in several tourism projects across the country. Note: Initially, representation from the Independent Development Corporation and Consultant on various tourism projects across the country (in the Private Sector) category were

Research Objective	Research Strategy	Research Techniques	Population for this objective/method	Participants/Case Study
				not included as participants, but other respondents had suggested these participants who willingly agreed to participate in the study.
Specific Research Objective 3: To develop and test a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa.	Multiple case study	Literature reviews; key informant interviews and focus groups	The research population of the system of tourism and infrastructure planning in the country is comprised of Departments across various spheres of government.	Case Study 1: South African National Parks (SANParks) – National Government Case study 2: Gauteng – Provincial Government and Local Government Case study 3: V&A Waterfront - City of Cape Town – Local Government

3.4.1 Unit of analysis

The unit of analysis of the study is the public sector system of tourism and infrastructure planning in South Africa. The research population of the tourism and infrastructure planning system in South Africa is comprised of various Departments across Local, Provincial and National Government. As highlighted in Section 1.3.1, both tourism and infrastructure planning are described as concurrent functions meaning that all three spheres of government have a role to play in the delivery of these functions.

Public infrastructure serves the need of needs of multiple sectors, not just tourism. Gauteng Provincial Government (2012) provides a useful summary of the allocation of constitutional mandate and powers for infrastructure and tourism in South Africa as described below:

1. **Spatial and development planning**: National government is responsible for regulation of this function. Provincial government is responsible for regional planning, urban and rural development. Local government is responsible for local planning, development control and building regulations.
2. **Economic development and tourism:** National government is responsible for macroeconomic policies for tourism and infrastructure. Provincial government is responsible for industrial policy and promotion, regional economic planning, tourism, and the licencing of gambling, racing and liquor. Local government is responsible for local tourism, promotion of economic development of the community, trading regulations and markets.
3. **Environment:** National government is responsible for regulations, national parks and botanical gardens that are key tourism assets. Provincial government is responsible for planning and regulations, nature conservation and environmental management. Local government is

responsible for environmental enforcement and management of noise and air pollutions.

4. **Transport:** National government is responsible for national roads, rail, major ports, international and national airports. Provincial government is responsible for provincial roads, traffic management, public transport and vehicle licensing. Local government is responsible for local roads, municipal public transport, local airports, harbours and ferries.
5. **Water:** National government is responsible for bulk infrastructure and the management of key water resources e.g. dams and rivers. Provincial government is responsible for pollution control of water sources. Local government is responsible for bulk and reticulation of potable water supply.
6. **Waste Management:** National government is responsible for the regulations. Provincial government is responsible for pollution control. Local government is responsible for sanitation which is limited to domestic waste water and sewerage disposal systems, storm water management, refuse and solid waste disposal.
7. **Public Safety:** National government is responsible for public policing. Provincial government is policing oversight and traffic management, disaster management and ambulance services. Local government is responsible for policing in metropolitan areas, traffic management, firefighting services and control of public nuisances.
8. **Education:** National government is responsible for policy, regulation and tertiary institutions, provincial government is responsible for implementation and policy and primary and secondary institutions. Local government is responsible for early childhood development.
9. **Health:** National government is responsible for policy and regulation. Provincial government is responsible for primary, secondary and tertiary health care centres. Local government is responsible for municipal health care centres and the licensing of outlets selling food.

10. **Culture, recreation and sport:** National government is responsible for policy, national museums and cultural institutions. Provincial government is responsible for cultural matters, provincial museums, recreation and sport. Local government is responsible for municipal parks and recreation, amusement facilities, outdoor advertising, and local sport facilities.
11. **Public Works and Infrastructure:** National government is responsible for national public works. Provincial government is responsible for provincial public works. Local government is responsible for local public works, electricity and gas reticulation, street lighting and parking.

As a complete study of all of the functions related to tourism and infrastructure planning within the total research population was not possible, the following functions were a focus of this study:

1. **Spatial and Development Planning:** In South Africa, it takes around 20 years for the development of tourism destinations, the Cradle of Humankind in Gauteng and Midlands Meander in KwaZulu-Natal are cases in point. An understanding of spatial and development planning functions which are in there nature long term planning tools are therefore considered important functions for this study.
2. **Economic Development and Tourism:** Increasingly tourism features as a key pillar in global economic development strategies. An understanding of this function was considered central to this study.
3. **Environment:** This function impacts on the quality of life of citizens and the experience of tourists. Environmental infrastructure is also considered as key tourism assets that entice tourists to visit.
4. **Transport:** This element was selected as transport is a key enabler for tourism as it allows for ease of movement to, within and from a tourism destination. Tourism is not possible without access to transport infrastructure.

5. **Public Works and Infrastructure:** The focus of this study is develop a model for integrated tourism infrastructure planning in the South African public sector. Public Works and Infrastructure are the custodian of a significant portion of public infrastructure. An understanding of this function is important for the study as it is anticipated to provide a broad overview of public infrastructure planning.

3.4.2 Methodological Choice – Case Study Strategy

3.4.2.1 Definition, strengths and limitations of the case study

> *"If we are concerned about the imprecision of case studies as research data, we can console ourselves by noting that a man named Darwin was able to write about a study of the Galapagos Islands and a few other cases. To the best of my recollection, there are no statistics in Darwin's book"*
> (Simon, 1991:128 as cited in Woodside, 2010: 397)

A case study is a close, detailed examination of a single phenomenon (Calhoun, 2002; Gerring, 2004; Panke, 2018). A case study is versatile and can be utilised regardless of the philosophical underpinning or discipline of the study being undertaken (VanWynsberghe & Khan, 2007). Yin (2014) provides a definition of a case study in two parts. The first part relates to the scope of a case study as follows *"A case study is an empirical inquiry that 1) investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when 2) the boundaries between phenomenon and context may not be clearly evident."* (Yin, 2014: 16). The second part of Yin's (2014) definition relates to the methodological characteristics of a case study as it is difficult to clearly distinguish between the phenomenon and context in a real world case study. The additional features of a case study inquiry as described by Yin (2014: 17) are 1) "*Copes with the technically distinctive situation in which there will be many more variables of*

interest than data points, and as one result relies on multiple source of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis."

The use of case studies in tourism is well supported (Scott 2011, Stevenson, Airey & Miller 2008, Kerr, Barron & Wood 2001). Two main reasons are posited for the use of case studies in tourism (Masser as cited in Pearce 1993). Firstly, the practical value of such studies and the resultant possible transfer of experience and, secondly, the extent to which case study comparisons stimulate the development of theory. The case study strategy allows for "the rich understanding of the context and processes enacted" (Morris & Wood 1991 as cited in Saunders, Lewis & Thornhill, 2009: 146). This view is further supported by Meyer (2001) who states that the strength of case studies lies in their capacity to address current phenomenon in real-life contexts. The case study strategy is therefore considered appropriate for this study as it aligns with the research objective of developing and model for integrated tourism infrastructure planning in South Africa by undertaking a systematic empirical understanding of the current processes used in and the identification of challenges to integrated tourism infrastructure planning.

The limitations of case study research are to over-generalise the application of findings from specific contexts (Pearce 1993) and case study research is often critiqued as being imprecise (Yin, 2014). Flyvbjerg (2006) elaborated on and debunked the five common myths[16] about case study research. Flyvbjerg (2006) concluded that rather than the case study itself, it was the validity, reliability and theory of a case study that were being critiqued. Yin (2014) emphasises that the

[16] Five common myths (Flyvbjerg, 2006) (1) Practical (context dependent) knowledge is less useful than theoretical (context independent) knowledge; (2) It is not possible to generalise from a case, therefore a case study cannot contribute to scientific knowledge; (3) the case study is useful for hypothesis generation, other methods should be used to test hypotheses and build theory; (4) the case study contains a bias toward confirming the researchers preconceived views; and (5) it is often difficult to summarize specific case studies.

limitations of case study research can be mitigated through a focus on the quality of the research i.e. rigour, reliability and validity. Section 3.6 details the quality of this research inquiry. This researcher concurs with Dumez (2015) that although texts on the case study are insightful they do not belie the complexity of what a case is nor the complexity of conducting a case study.

3.4.2.2 Selection of cases

The selection of cases is often confused with a non-probability purposive sampling method (Yin, 2014). A purposive sampling strategy is typically utilised in qualitative research to identify and select information rich cases or individuals well informed and experienced in the study phenomenon who are willing, able and available to participate in study (Etikan, Musa & Alkassim, 2016; Saunders, Lewis & Thornhill, 2016). However, this researcher agrees with Yin's (2014: 44) assertion that *"the use of the "sample" portion of the term still risks misleading others into thinking that the case comes from some larger universe or population of like-cases …. The most desirable posture may be to avoid referring to any kind of sample (purposive or otherwise)".* Yin's (2014) preferred terminology i.e. of multiple case study was instead utilised in this study.

Meyer (2001) provides a very instructive text on case study methodology. Yin (2014) considers single and multiple case designs to be variants of the same methodology. Multiple cases are sometimes considered to be more robust and therefore more compelling but can also require extensive resources and time (Flyvbjerg, 2006; Yin, 2014). The phenomenon/case of interest in this study is infrastructure planning for tourism in the South Africa public sector. The research question in this study is "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the South African public sector?" South Africa has three spheres of government each with its own distinct roles and responsibilities. In order therefore to understand the

phenomenon/case of this study, multiple case studies were developed. These descriptive case studies which outline the case in its "real-world context" (Yin, 2014) are contained in Chapter 4.

Flyvbjerg (2006) offers two strategies for the selection of cases i.e. 1) random case selection which seeks a representative case to allow for generalisation or 2) information oriented case selection where a case is chosen on the basis of anticipated information content provision. In the instance of this study an information oriented selection of the case study has been followed. More specifically a "maximum variation information oriented case selection" (Flyvbjerg, 2006) has been utilised as the three selected cases are from different spheres of government and it was anticipated that these specific contexts would yield variations in process and outcome information. The researcher has over twenty years of experience in the public sector and this experience has informed the identification of individuals and cases best placed to provide the information required to achieve the objectives of the study. As the system of planning in the country encompasses local, provincial and national government, three case studies, one at each of these spheres were developed in order to understand the entire planning system. The rationale for the selection of each of these cases is outlined below.

i. **Case Study 1: South African National Parks (SANParks) (National Government)**

This case study explored public sector tourism infrastructure planning at a national government sphere. SANParks has been selected as a case study as it is the single largest owner of tourism assets in South Africa. SANParks is an entity of the Department Forestry, Fisheries and Environmental Affairs.

ii. Case Study 2: Gauteng (Provincial and Local Government)

This case study explored public sector tourism infrastructure planning at provincial and local government spheres. Gauteng has been selected as a case study as it is the only Province in the country that has completed a systematic analysis of tourism infrastructure, including the interface between transport and tourism, through the development of the Gauteng Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government 2012c) and Gauteng Integrated Tourism Transport Plan (Gauteng Provincial Government 2015). The Cradle of Humankind World Heritage Site and Dinokeng Projects represent a case study of the interface between the provincial and local government spheres. Both these projects are significant tourism geospatial projects in Province and Local Government spheres and were selected as the imperative to make strategic economic infrastructure investments was central to these tourism developments.

iii. Case study 3: Victoria and Alfred Waterfront, City of Cape Town (Local Government)

This case study explored public sector tourism infrastructure planning at a local government sphere. This case study looked at the development of the Victoria and Alfred (V&A) Waterfront in the City of Cape Town. Although this is a mixed use development, it has become a key tourism attraction in Cape Town. Cape Town is generally considered a key tourism destination in South Africa.

Given the literature review emphasis on the key role played by government in tourism policy and planning, this research is written from the perspective of a policy maker.

3.5 Research Techniques and Procedures

3.5.1 Data Collection

The research aimed to develop and test a model for integrated tourism infrastructure planning undertaken by the South African public sector. Data was collected through a variety of tools including desktop research, literature reviews, document reviews, key informant interviews and focus groups.

The specific research objectives are to:

1. Undertake a systematic empirical understanding of the current processes used for tourism infrastructure public sector planning in South Africa to identify the integration challenges
2. Determine the key elements required to develop an integrated model for tourism infrastructure planning undertaken by the South African public sector.
3. Develop and test a model for integrated tourism infrastructure planning undertaken by the South African public sector.

In order to fulfil these first two objectives, semi-structured interviews with key informants as well as focus groups was utilised. The case studies were utilised to address all three objectives of the research.

3.5.1.1 Study participants

Although the system of tourism and infrastructure planning in South Africa is comprised of both public and private sector players, public sector participants best understand the complexity of public sector planning which is the focus of this study. In total there were 29 participants in this study. Participants were drawn mainly from the public sector (N=25) with a few private sector (N=4) participants.

Participants were mainly involved in either the tourism (N=13 or 45%) or infrastructure (N=7 or 24%) sectors. However, some participants had neither tourism nor infrastructure experience but were engaged in wider planning processes (N=9 or 31%).



Figure 9 Graphic representation of the research participants per main category of experience

Public sector participants represented a cross section of experience from various government departments and agencies at national, provincial and local spheres as detailed below:

1. National Government: Department of Tourism (N=6); Treasury (N=1); Department of Public Works and Infrastructure Development (N=2), Department of Transport (N=1); Department of Co-operative Governance (N=1); Development Bank of Southern Africa (DBSA) (N=2); Independent Development Corporation (IDC) (N=1) and the South African National Parks (SANParks) (N=1)
2. Provincial Government: Gauteng Provincial Government (N=2) and the Western Cape Provincial Government (N=1)

3. Local Government: South African Local Government Association (SALGA) (N=4); West Rand District Municipality (N=1); Mogale City Local Authority (N=1); City of Cape Town (N=1)

Private sector stakeholders were involved in the Tourism Business Council (TBCSA) (N=1), V&A Waterfront in Cape Town (N=1), the Karoo Development Foundation (N=1) and a Consultant on various tourism projects across the country (N=1).

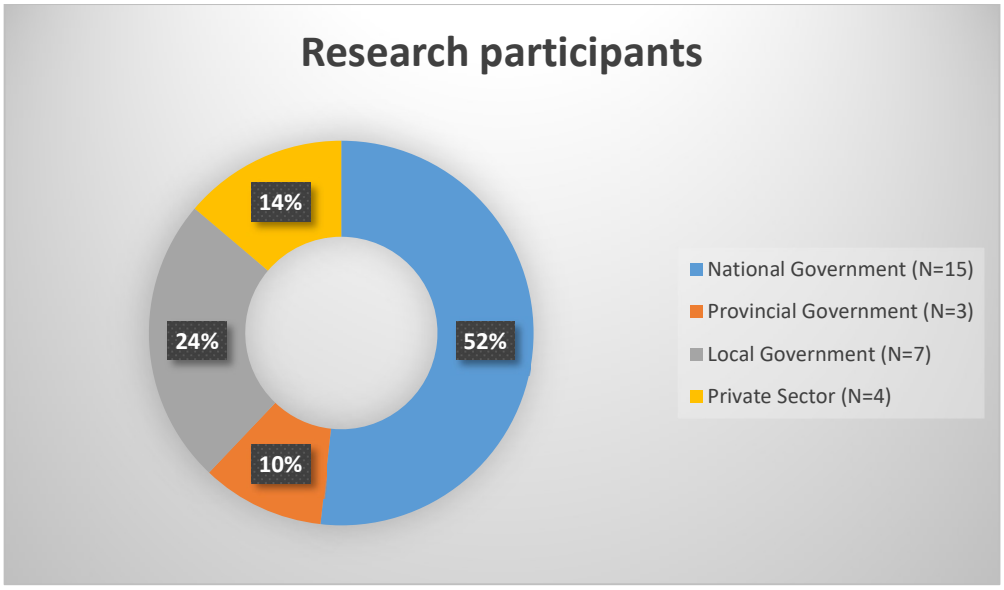


Figure 10 Graphic representation of public and private sector research participants

The primary research data for this qualitative study was collected through 26 key informant interviews, and three focus groups (with a total number of 21 participants). All key informant interview participants had been invited to participate in the focus groups. The logic for the overlap between key informant interview and focus group participants was that the development and testing of a model for integrated tourism infrastructure planning, like the intention of the South African public sector planning, was seen as iterative, progressive and consensus building. However, the scheduling of the focus groups was not convenient for all the key informant participants. There were nine participants who participated only in the key informant interviews, and three participants who

participated only in the focus groups. As a result most (15) participants in the key informant interviews also participated in the focus groups.

Focus Group 1 was comprised of six participants, Focus Group 2 was comprised of seven participants. One participant, due to schedule clashes, participated in both Focus Group 1 Focus Group 2. Focus Group 3 was comprised of nine participants, three participants who been a part of either the Focus Group 1/2 discussions and six participants who had not participated in a previous focus group.

The researcher's own experience over twenty years in the South African public sector was central to this research study. It provided a unique lens through which the research was conceptualised and the research data collected and analysed. To mitigate bias, all interviews and focus groups were transcribed, and the notes on each key informant interview and focus group, were sent to the individual and group participants for their further inputs. These notes served both as a record of the discussions but also as a way to ensure that the researcher had accurately captured both the content and intentions of the information provided by research participants.

3.5.1.2 Key informant interview data collection

The semi-structured key informant interviews were designed to elicit participants' views on the definition of tourism infrastructure; experiences and understanding of integrated planning for either/both tourism and infrastructure development; and thoughts on the key elements integral for the development of a model on integrated tourism infrastructure planning. The semi-structured key informant questionnaire is provided as Appendix 7. Information from these interviews was used to develop the model for integrated tourism infrastructure planning.

3.5.1.3 Focus group data collection

The first two focus groups were designed to present to, and elicit feedback from, these participants, of a synthesis of the information provided in the individual key informant interviews. Comments from these groups were used to refine the model for integrated tourism infrastructure planning in the South African public sector.

The first two focus groups were followed by the researcher making an extensive review of literature and documents to test the practical application of the model for integrated tourism infrastructure planning, in the Karoo Region of South Africa. This region was deliberately selected for a number of reasons. Firstly, like tourism, the Karoo region is not defined by political boundaries but rather by regional economic integration. Covering just over 40% of South Africa's national land, it straddles the Free State Province; the Eastern, Western and Northern Cape Provinces, i.e. four of the nine provinces in South Africa; 13 District Municipalities; one Metropolitan Municipality and 36 Local Municipalities. Secondly, the Karoo was officially proclaimed a region on 19 October 2020. This proclamation further enables cross-border and public-private co-operation. Thirdly, and perhaps most importantly, the region presents an opportunity for integrated planning to contribute significantly to economic growth and development.

The third focus group was designed to present to, and elicit the participants' response to, the researcher's own assessment of the model's practical application for integrated tourism infrastructure planning in the Karoo Region of South Africa. Participant inputs from this third focus group was utilised to refine the model for integrated tourism infrastructure planning in the South African public sector.

3.5.1.4 Data collection to define tourism infrastructure

One of the key concepts in the research study was the definition of tourism infrastructure. The definition outlined below was initially used as a base for further exploration in this study:

The most widely used definition of tourism infrastructure comes from the Australian Transport and Tourism Forum (2008) "the supply chain of transport, social and environmental infrastructure that helps to create a tourism destination" - platform from which tourism product is delivered to tourists. It further outlines Tourism Infrastructure as follows:

1. Critical visitor infrastructure
    - Demand Drivers are must see icons or activities that incentivise travel and are typically by the State
    - Supporting visitor infrastructure may not form the main reason for travel but these amenities heavily impact on the tourism experience
2. Transport Infrastructure – provides visitor access to and within a destination
3. Social Infrastructure – includes amongst others accommodation, events, exhibitions, museums and stadiums
4. Environmental Infrastructure – allows visitors to enjoy nature and includes environmental estate of parks, reserves, World Heritage Sites
5. Collaborative Infrastructure – the relationships and institutions between public and private sector actors who develop and market tourism destinations and distribute tourism products

Data for the definition of tourism infrastructure was obtained as follows:

1. Firstly, in the semi-structured key informant interviews participants were asked to complete the following sentence "Tourism infrastructure is ….". The responses obtained from key informant interview participants was

formulated into a Word Cloud contained as Figure 23. The size of the words correlates with the number of times that the word was mentioned and provides a visual representation of the content of responses.

2. Secondly participants in the first two focus groups were presented with both the Word Cloud in Figure 23 as well as a definition of tourism infrastructure as contained in Figure 24. Focus group participants were invited to provide their views and inputs to the definition of tourism infrastructure.
3. Lastly, participants in the third focus group were presented with a definition of tourism infrastructure as refined by participant inputs made in the first two focus groups. This improved definition of tourism infrastructure is contained in Figure 30. Participant contributions from the first two focus groups are highlighted in grey text.

The logic of the method outlined above was to gather both individual perspectives and to build group consensus on the definition of tourism infrastructure.

3.5.1.5 Case study data collection

The data collection for each of the case studies is described below:

Case Study 1: South African National Parks (SANParks)

The SANParks case study was developed through a literature review and a key informant interview with a member of staff responsible for tourism and infrastructure development. The maintenance project that was rolled out in all National Parks by the Department of Tourism also provided a primary source of data for this case study.

Case study 2: Gauteng (Provincial and Local Government)

This case study was developed through a review of the current literature, provincial government infrastructure strategy and planning documents, local government IDP documentation, including infrastructure plans as well the Masterplans for Cradle of Humankind and Dinokeng. Key informant interviews were conducted with tourism and planning officials at Provincial and Local Government. The case study also drew on the researchers' own experience of having been involved in tourism planning in the Province. This experience is derived from the development of two tourism geospatial projects, the Cradle of Humankind and Dinokeng; the development of the Gauteng Tourism Infrastructure Strategy and Plan; and the Gauteng Tourism and Transport Plan.

Case study 3: Victoria and Alfred Waterfront, City of Cape Town (Local Government)

This case study looked at the development of the Victoria and Alfred Waterfront. Although this is mixed use development, it has become a key tourism attraction in Cape Town. This case study was developed through a key informant interview, review of the literature, provincial government strategy and planning documents and local government documentation.

In each of the case studies outlined above, the role of the following variables were explored:

1. Spatial development frameworks (Were these sufficiently specific to guide both public and private sector investment decisions into tourism infrastructure?)
2. Tourism product and market development strategy (Were these sufficiently detailed to guide investment in the tourism-product base? Was there a demand and supply analysis and was the gap between demand and supply that informed new tourism product development established?)

3. Municipal Capital Expenditure Frameworks (CEFs) i.e. long term infrastructure investment plans, Metropolitan Municipalities Built Environment Performance Plans (BEPP) and Tourism Infrastructure Masterplans (i.e. Infrastructure investment framework comprising spatially referenced project proposals that are sufficiently detailed to allow for subsequent costing, feasibility and viability analysis. Did these documents define all elements of infrastructure required to support tourism development?)

The case studies assisted in establishing the role of each of these elements in the model for integrated tourism infrastructure planning.

3.5.2 Analysis of the Data

Thematic Analysis (TA) was employed in this study. Javadi and Zarea (2016) describe TA as the simplest and most common form of data analysis in qualitative research. Simply put, TA derives concepts and meaning from data though examining, recording and reporting on themes or patterns (Kiger & Varpio, 2020; Braun & Clarke, 2006). Underlying Braun and Clarke's (2006) approach to TA is the philosophy that qualitative research is reflexive, creative and subjective, with the end goal of making meaning within a particular context (Braun & Clarke, 2019). Within this philosophy the subjectivity of a researcher is a resource rather than a threat to knowledge production and the researchers' role is central to the production of knowledge (Braun and Clarke, 2019). Data analysis is about prolonged and deep data immersion, reflection and interpreting, creating and telling "stories" about the data (Braun & Clark, 2019). On reflection of their original 2006 work, Braun and Clarke (2019) describe themes as "stories about patterns of shared meaning underpinned or united by a central organising concept". Themes do not emerge passively from the research, but are rather actively created by the researcher at the nexus of data, analysis and subjectivity

(Braun & Clarke , 2019). Braun and Clark (2019) renamed their original 2006 TA approach to Reflexive TA.

The benefits of Reflexive TA is that it is a simple, flexible but powerful tool that allows for interpretation, summarisation and emphasis of a wide range of data (Kiger & Varpio, 2020). Braun and Clarke (2006) offer advice on how to avoid the three pitfalls in the use of Reflexive TA. Firstly, researchers must adequately describe the assumptions that underlie their analysis. Secondly, adequate analysis of the data requires the researcher to interpret meaning. Thirdly, to avoid weak analysis of the data, themes should be carefully considered within the data itself. Braun and Clark (2006; 2019) offered a flexible six step process for Reflexive TA and emphasised that Reflexive TA required the researcher to articulate the assumptions informing their approach and how Reflexive TA was performed in the research analysis. Outlined below is this six step process (Braun and Clarke, 2006; 2019; Kiger and Varpio, 2020) as well as an explanation of the researcher's application of this method to the research study.

Step 1: Familiarising yourself with the Data (This step involves immersion in the data requiring active and repeated reading and making initial notes on themes.) The researcher individually conducted all of the interviews and focus groups. After each interview and focus group, the researcher completed verbatim transcriptions of each interview (26 in total) and focus group (3 in total). These transcriptions were then summarised into notes that were then sent to each individual and group research participant. The notes served as a record of the interview or focus group process but more importantly provided the opportunity for participants to reflect on and refine their inputs. This was an important step to mitigate researcher bias and to ensure that the researcher had accurately captured both the content and intentions of the inputs provided by research participants. Further inputs from research participants was incorporated into the original notes. The researchers assumption at this stage was twofold. Firstly, her own experience could guide the

probing in the semi-structured interview process and the direction of discussions in the focus group process. Secondly, this researchers closeness to the data could allow for rapid immersion.

Step 2: Generating Initial Codes (This step involves systematic coding of the entire data set to organise the data, find connections, questions and items of interest.)
This process commenced at the initial interview and focus groups. The researcher made initial notes of interesting items, questions and connections. During the process of transcription, the researcher summarised the interesting items, questions and connections for each individual interview and focus group. Codes for the definition of tourism infrastructure from the individual interviews was formulated into a Word Cloud where the size of the words correlated with the number of times that the word was mentioned. The researchers underlying assumption in this process was that the number of times a word was mentioned reflected its significance or importance in the definition of tourism infrastructure. Codes for the elements of a model for integrated tourism infrastructure planning were generated using the initial elements for inclusion in the model as identified by the researcher. The researchers assumption was that her own understanding of improvements to the current system of planning had merit borne out of her extensive experience of public sector planning. At the same time, the researcher wanted to test the merit of these ideas with research participants in both the interview and focus group processes.

Step 3: Generating Themes (This involves the collation of codes into themes.)
The individual interviews produced a diversity of interesting items, questions and connections or codes. These codes were consolidated into a single document in order for the researcher to generate themes from the data for both the definitions of tourism infrastructure and the elements proposed for the model on integrated tourism infrastructure planning. The researchers assumptions during this process was that while there was value in all the contributions made by participants, her

own judgement was equally important in determining/generating the themes that had meaning for this research study.

Step 4: Reviewing Themes (This step involves two levels of analysis, firstly reviewing if the themes work for individual data and secondly if they apply to the entire data set. The production of a thematic map completes this step.)

Following the process outlined above, the researcher went back to the original notes from the 26 individual key informant interviews to cross reference the themes identified with the original data. This was a time consuming but important process as the researcher wanted to ensure that all the important inputs had correctly been captured in the thematic consolidation. Thematic maps in the form of a Word Cloud (for the definition of tourism infrastructure) and a Mind Map (for the elements for the model for integrated tourism infrastructure planning) were formulated for use in focus groups.

Step 5: Defining and Naming Themes (This step involves the researcher creating definitions for and naming each theme.)

The Word Cloud for the definition of tourism infrastructure and the Mind Map for the elements for the model for integrated tourism infrastructure planning were presented to focus group participants for their further inputs. Through the analysis of the data, the researcher has generated and named five themes for the definition of tourism infrastructure and four themes on the elements of the model for integrated tourism infrastructure planning from the analysis of data.

Step 6: Producing the Report/Manuscript (This step involves writing up the final analysis and description of the data and importantly provides the researchers interpretation of the data.)

Chapter 4 provides a case study for South Africa. This Chapter draws together insights and analysis of document and literature reviews as well as key informant interviews. Chapter 5 provides a detailed description of the data analysis and the

researcher's interpretation of the data in relation to the study gathered through the key informant interviews and focus groups. Chapter 5 also incorporates information from the case study contained in Chapter 4 to provide a convergence of data sources in an attempt to triangulate the study findings .

3.6 Quality of Research Inquiry

It is important for research to be credible. The constructs of reliability and validity are commonly applied in quantitative research (Saunders, Lewis & Thornhill 2016). Reliability is the ability to replicate findings consistently, utilising the same research design. Validity relates to the applicability of the measures used, accuracy in analysis and the ability to generalise the findings. However, the application of these two concepts to qualitative research has been questioned (Saunders, Lewis & Thornhill 2016). Although the alternative quality criteria, developed by Guba and Lincoln (1985) were utilised in this specific study and are outlined later in this section, the constructs of reliability and validity as they apply to case study (Yin, 2014) are first discussed in the paragraph below.

Yin (2014) outlines the four tests used to establish the quality of empirical research and case study tactics that can be utilised to address these as outlined below:

1. **Construct Validity** entails the identification of operational measures for the study phenomenon and is described as being particularly challenging in case study research (Yin, 2014). Within the context of this specific study multiple sources of evidence were utilised e.g. document reviews, key informant interviews and focus groups. Research participants were also sent research notes from key informant interviews and focus groups for further comment and inputs to ensure that the intention of the inputs was correctly captured and to mitigate against researcher bias.
2. **Internal Validity** is mainly a concern for explanatory case studies where a causal relationship is being determined/concluded from the evidence. This

first concern does not relate to this study as this is not an explanatory case study seeking to establish a causal relationship.

3. **External Validity** relates to the generalization of research findings. The tactic employed in this study is the use of multiple case studies. Multiple case studies lend themselves to more compelling and robust results with the caution that each case must be carefully selected so that it either predicts similar or contrasting results (Yin, 2014). For this study, the three cases were been deliberately selected for their predicated similarity (e.g. South African National Parks and Gauteng are both public sector entities and therefore predicated to have similar models for tourism infrastructure planning) and predicated contrast (e.g. the V&A Waterfront is considered a public-private sector partnership and therefore predicted to have contrasting models for tourism infrastructure planning).
4. **Reliability** is about ensuring that if the same case study is repeated by multiple researchers, the same findings and conclusions will be achieved. To this end, Yin (2014) suggests two tools that can be utilised to improve reliability 1) document the procedures followed in the initial case and 2) develop a case study database. This researcher has tried to provide as much detail as possible for the procedures followed in this study and has also maintained an extensive case study database of all raw data collected during this study including documentation reviewed and original recordings and transcripts, notes and coded data from key informant interviews and focus groups.

The paragraphs below contain a description of how the following alternative quality criteria, developed by Guba and Lincoln (1985), were implemented in this study:

1. **Dependability**: This is akin to Reliability. In the context of this research, all the changes in the research have been recorded in order for external

parties evaluating the research to understand the emerging research focus. These are reported in Chapter 5.

2. **Credibility**: This is similar to the internal validity. It refers to ensuring that the research accurately reflects the intentions of the participants. As described previously, the researcher shared the transcriptions and the summarised notes from the interviews with each individual and group participant. The notes served as a record of the interview or focus group process, but more importantly provided the opportunity for participants to reflect on and hone their inputs. This was an important step to mitigate researcher bias and to ensure that the researcher had accurately captured both the content and intentions of the information provided by research participants.
3. **Transferability**: This is analogous to external validity or the ability to generalise the research findings. In order to allow readers to determine the transferability of the research data, a full description of the research design, process, context, findings and interpretations will be shared with the reader in Chapters 5 of this thesis.
4. **Authenticity criteria**: This ensures fairness in representing views in the research. In this research two processes were used to ensure fairness in the presentation of data. Firstly, opinions expressed by participants in individual interviews and focus groups was shared with the participants and all further comments were incorporated into the research notes. Secondly, as there was an overlap between participants in the individual interviews and the focus groups, information collated from the individual interviews was presented for further discussion and comments to the participants in the focus groups.

3.7 Ethical Considerations

3.7.1 Ethics approval and research permissions

Prior to the study being undertaken, an ethics application was submitted and approved by the University's Ethics Committee. A copy of the Ethics Certificate (Protocol Number: H 20/07/06) for this study is contained as Appendix 8. Where it was required to ensure that institutional approval was granted for researcher access, letters seeking permission for the research were sent to various organisations. The letters of consent from various organisations are provided in Appendices 9 – 12.

The researcher was cognisant that her current role within the National Department of Tourism both facilitates access to information and to research participants, but also places additional responsibility on her not to abuse this position. She therefore enlisted the assistance of a third party to facilitate the invitations and follow up for interview and focus group sessions. The third party was included in the ethics application that was approved by the university. The researcher used her student email for all research related communication.

Each research participant was sent a relevant participant information sheet and consent form prior to the interview and focus group processes. These Information Sheets and Consent Forms are provided as Appendices 1 – 6. Key informant interviews were scheduled at times convenient to each participant and participants had a choice of joining focus groups if it suited their availability. Participants also had the choice not to participate in the study.

This study posed minimal risks to participants. The researcher confirms that no participants were harmed during the course of this study and that the study complied with the ethics requirements of the university.

3.7.2 Reflexivity

"A reflexive approach suggests that rather than trying to eliminate their effect, researchers should acknowledge and disclose their selves in their work, aiming to understand their influence on and in the research process" (Holmes, 2020: 3).

There are at least two potential benefits of a reflexive approach (Alvesson, 2003). First, it allows a researcher to understand that empirical material is complex and does not reveal reality. Secondly, this understanding of the potential richness of meaning that can be derived from complex data allows for creativity in the interaction between producing and challenging interpretations. Reflexivity is considered critical in qualitative research as a way to improve the rigour of a study (Corlettt & Mavin, 2018; Engward & Davis, 2015; Holmes 2020). However there is no common or consistent definition of reflexivity (Engward & Davis, 2015). For the purpose of this study the definition of reflexivity as "a process of self-monitoring and self-responding to our actions, feelings and thoughts throughout a research study" is utilised (Corlett & Mavin, 2018). Corlett and Mavin (2018: 7) further offer three aspects of reflexive practice i.e. "thinking, doing and evaluating" which inform the structure of the content contained hereunder.

3.7.2.1 Thinking

A reflection of my own underlying assumptions about knowledge production revealed a strong leaning towards a belief that knowledge is co-produced (Alvesson, 2003; Corlett & Mavin, 2018) and that multiple perspectives/views are equally valid. This perspective comes from my formative training in the social sciences and in psychology in particular and played itself out in multiple ways in the research process. It allowed for me to have deep appreciation of the generosity of spirit of all of my research participants who willingly shared their time, knowledge and experience but it also made it very difficult for me find my

own voice, particularly in the analysis of research findings as I tried to very carefully reflect the voices of the research participants. I concur with Yin (2014) that the detailed understanding of case required prior to a study does leave a researcher particularly vulnerable to confirmation bias. To this end I have tried my best to reflect contrary evidence where it arose in the study. I have also tried to provide verbatim inputs, perhaps overdone at times, from participants. I embarked on this study with a strong desire to find a practical solution to a problem that I have grappled with for over twenty years as a public servant. The research was strongly shaped by own interests and desire to complete a study that would have practical application and value. Although I have a strong resonance with this statement *"Pragmaticism means balancing endless reflexivity and radical scepticism with a sense of direction and accomplishment"* (Alvesson, 2003: 14), I often struggled with balancing academic rigour with practical problem solving. Particularly in this aspect I concur that "*Reflexivity in research can be uncomfortable*" (Corlett & Mavin, 2018).

3.7.2.2 Doing

Reflexivity informs positionality (Holmes, 2020). Positionality is identified by understanding the position a researcher takes about 1) the subject under investigation 2) research participants and 3) context and process of the research (Savin-Baden & Major 2013 in Holmes, 2020). This researcher concurs with the fourth dimension that of "time" as added by Holmes (2020). It has taken me 20 years to clarify my own positionality in this research which is articulated in the Preface and will not be repeated here.

Although the insider-outsider duality is particularly relevant in ethnographic studies, Holmes (2020) argues that it is relevant to all studies. With regards to the subject under investigation, I would certainly consider myself as tourism insider with the advantages of being able to easily access information, ask more insightful

questions as a result of my deep understanding of the content knowledge and to build participants trust gained through the experience of working together in my public service career. On the other hand I am an infrastructure outsider which allows me to mitigate some of insider bias by asking naïve questions about infrastructure planning. I am a public sector insider but also a research outsider being a novice researcher. This was a particularly interesting dynamic to deal with and I am grateful for the support of my supervisors who encouraged both an exploration of academia coupled with finding my own voice through expressions of my public sector experience in the academic writing. I concur with Holmes (2020) view that positionality shifts and changes turning advantages into disadvantages and vice versa e.g. the insider advantage of access to information and participant amplified the responsibility not to abuse this position.

I personally conducted each interview and focus group and was careful to listen and probe responses from participants rather than prompt responses. I sought clarity of meaning by testing my own understanding of participants inputs with them in the interview and focus groups process, in reviewing the actual recordings from each interview and focus group I hear my own voice ask often “let me just check if I correctly understand what you are saying”. I completed verbatim transcripts of each interview and focus group and sent written notes to each research participant firstly to serve as a record of the discussions and inputs but more importantly to allow participants to verify if the notes correctly captured the individual and group inputs that were made. Key informant interview information was also consolidated and presented in the focus groups to similarly test the accuracy of the recorded information against the original intent of the inputs. The use of TA, particularly the process of generating and reviewing themes allowed for further reflection of the researcher with participants. It is still really difficult to see this PhD as solely “my own” work as it has benefitted immensely from the inputs of many others.

*"The knowledge we create is shaped by our particular interests and specific circumstances in which we conduct the research" (*Corlett & Mavin, 2018: 11). I ended the Preface as follows "*This study lies at the intersection of real life and research. I believe that no research is neutral. The researcher both shapes and is shaped by the research. I embarked on this research study as I am invested in finding practical solutions for public sector delivery of tourism infrastructure.*" My motivation for this study has always been very clear but I when I embarked on the study I also wanted to complete this research with rather on participants. At the heart of the real life problem investigated in this study is the need for integration, in my experience in the public sector integration is only possible through collaboration.

3.7.2.3 Evaluating

I concur with Holmes (2020) that while reflexivity makes transparent and contextualises the researchers position about the research process for the researcher, research participants and the readers of the research report, reflexivity does not guarantee more ethical or quality research (Holmes, 2020). Section 3.6 and Section 3.7 are my attempt to make transparent the quality of the research inquiry and ethical considerations respectively. To the best of my ability I have conducted this study honouring the integrity of 1) the participants, 2) the co-creation of knowledge 3) my role as both a public sector professional and a researcher. The degree to which I have been successful in this task I leave to the reader to determine.

3.8 Conclusion

This chapter has detailed the research method followed in this study. This included a description of the research design, an overview of the data collection, data analysis, the criteria to assess the quality of the research and lastly the ethical considerations. The next chapter will present the South African case study.

Chapter 4

4 Case Study of South Africa

4.1 Introduction

The preceding chapter detailed the research method. A case study strategy was used in this study. The unit of analysis for this study was infrastructure planning for tourism in the South Africa public sector. South Africa has three spheres of government each with its own distinct roles and responsibilities. In order therefore to understand the phenomenon/case of this study, multiple case studies were developed. This chapter presents three case studies i.e. 1) South African National Parks; 2) Gauteng; and 3) the Victoria and Alfred Waterfront (V&AW) which are representative of tourism infrastructure planning at the national, provincial and local spheres of government respectively. The rationale for the selection of these cases and the data collection methods have been outlined in Section 3.4.2.2 and will not be repeated here.

There is little by way of guidance on how to write a case study (Panke, 2018, Yin, 2014) as by their nature case studies are unique. Panke (2018) offers a skeleton structure in three parts 1) introduction 2) description 3) analysis. Yin (2014) offers broad principles for case study which includes significance, completeness, consideration of alternative perspectives, sufficient evidence , engaging a reader. There is some convergence on the idea that case studies can also provide a form of comparison (Flyvbjerg, 2006; Panke, 2018, Yin, 2014).

In an attempt therefore to provide some form of a comparison (Flyvbjerg, 2006; Panke, 2018, Yin, 2014) between the three different case studies, and taking the guidance (Panke, 2018, Yin, 2014) on how to write a case study each case study is

structured as follows: 1) Introduction, 2) Description of how tourism infrastructure planning is undertaken and 3) Analysis.

In the analysis section, the role of the following variables, as outlined in Section 3.5.1.5, as they relate to each specific case will be explored:

1. Spatial development frameworks
2. Tourism product and market development strategy
3. Municipal Capital Expenditure Frameworks (CEFs), Metropolitan Municipalities Built Environment Performance Plans (BEPP) and Tourism Infrastructure Masterplans

4.2 Case Study of the South African National Parks

4.2.1 Introduction

The South African National Parks (SANParks) is the custodian of 20[17] national parks spanning seven Provinces, with a total area of four million hectares ($40{,}000\ \mathrm{km}^2$), representing 67% of all formally conserved state land in South Africa (SANParks, 2020). The iconic Kruger National Park (KNP) comprises two million hectares. SANParks is an entity of the Department of Forestry, Fisheries and Environmental Affairs, the primary responsibility of SANParks being conservation and biodiversity management (SANParks, 2020). The founding legislation for SANParks was the now repealed National Parks Act, Act No. 57 of 1976. SANParks' continued existence is supported through the National Environmental Management: Protected Areas Act, Act No. 57 of 2003 (SANParks, 2020). The management of South Africa's conservation estates come with significant costs, including law enforcement and anti-poaching, service delivery, maintenance and new infrastructure (SANParks, 2017). Eighty percent of SANParks' operating

[17] 19 of these parks are functional, with the 20th Park being the recently added Meerkat National Park linked to the Square Kilometre Array project not being open for public access.

expenses are generated through tourism (SANParks, 2017). The construction and maintenance of buildings, roads, fences, water and sewerage lines are critical for tourism to the parks (Mabunda, 2005).

The South African National Parks is the single largest owner of tourism assets in South Africa. In the 2019/20 financial year[18], tourism revenue grew to R1.955-billion from R1.769-billion in the previous year, a 6.5% increase (SANParks, 2020). An accommodation occupancy of 69.4% was achieved. In the same financial year a total of 6 326 448 tourists visited the national parks, a decrease of 5.1% on the previous year's figures of 6 665 667 (SANParks, 2020). The decreased visitation was as a result of the early impact of COVID 19, with international cancellations taking place as early as January 2020, on the back of subdued domestic demand (SANParks, 2020). Domestic tourists make up 75% of all visitors to the National Parks (SANParks, 2017). Of the twenty National Parks, only five (i.e. Kruger National Park, Table Mountain National Park, Kgalagadi National Park, Addo National Park and Tsitsikamma National Park) provide surplus revenues which subsidise operations at the remaining parks (SANParks, 2017). A breakdown of the tourism statistics for each of the parks is outlined in Table 10 below.

[18] Financial years for all government departments and entities run from the 1 April in one year to the 31 March in the following year.

Table 10 Summary of Tourism Statistics to National Parks for 2019/20 Financial year

Park	Accommodation (excl Camping)				Camping			Guests to Parks	Total Activities
	Unit Nights Sold	Unit Occupancy	Bed Nights Sold	Bed Occupancy	Site Nights Sold	Camp Site Occupancy	Person Nights Sold		
Addo	28,990	79.8%	66,204	64.3%	9,885	54.6%	25,184	277,350	30,770
Agulhas	3,097	42.8%	8,251	33.8%	0	0	0	38,271	0
Augrabies	7,663	34.9%	15,593	30.9%	3,690	20.2%	9,946	55,375	1,242
Bontebok	1,926	37.6%	4,721	28.1%	2,168	23.7%	5,804	21,999	0
Camdeboo	761	52.0%	1,460	49.9%	1,872	34.1%	4,441	33,851	0
Golden Gate	17,734	34.1%	37,543	25.2%	2,590	23.6%	7,187	45,996	1,433
Garden Route	24,889	51.3%	58,399	42.3%	24,881	20.8%	71,463	471,510	11,174
Karoo	7,582	55.7%	18,786	38.0%	5,614	51.3%	13,658	30,270	699
Kgalagadi	32,069	82.7%	73,100	63.7%	25,229	76.0%	70,702	48,280	5,662
Kruger	386,429	78.0%	918,682	60.6%	162,837	67.4%	427,090	1,833,061	207,014
Marakele	4,222	55.2%	9,585	39.9%	4,259	32.3%	11,294	25,974	2,547
Mapungubwe	5,940	51.5%	12,916	47.1%	2,278	62.2%	5,748	42,081	24,503
Mokala	5,742	50.6%	12,390	39.8%	1,823	45.8%	4,504	15,817	690
Mountain Zebra	8,456	75.3%	21,937	45.8%	4,747	51.9%	11,440	27,110	3,172
Namaqua	806	44.2%	1,729	26.3%	3,921	22.1%	10,949	15,554	0
Richtersveld	2,100	32.1%	4,391	27.5%	3,473	17.0%	10,758	5,231	43
Table Mountain	2,730	35.8%	9,042	29.5%	0	0	0	3,083,155	1,330
Tankwa Karoo	1,577	39.7%	4,014	22.2%	1,049	20.5%	2,702	4,925	
West Coast	995	55.0%	3,322	38.2%	0	0	0	250,638	1,283
Total 2019/20	**543,708**	**69.4%**	**1,282,065**	**54.0%**	**260,316**	**48.2%**	**692,870**	**6,326,448**	**291,562**

(Source: SANParks, 2020, Table 6: 113)

4.2.2 How is tourism infrastructure planning undertaken?

Each Park has a ten-year Management Plan which includes capital development plans[19]. These individual plans have been consolidated into the overall infrastructure plans and tourism product development strategy. The product development strategy prioritises parks based on tourism demand and the supply of products in the specific park and broader area. This information is further consolidated into a funding prioritisation list. Between 2019 and 2024, SANParks requires R 3,6 billion to meet all of its infrastructure needs, but has an approved budget of only R 652, 721 million (SANParks, 2020). In order to bridge the funding shortfall, SANParks has implemented a Commercialisation Strategy using the Public-Private Partnerships (PPPs) model. Between 1998 and 2018, the Commercialisation Strategy has yielded fifty PPPs, funding infrastructure developments worth over R755 million, bringing in a revenue of R1,060 million and creating 2 016 permanent jobs.

SANParks has 6 325 buildings, 3 256 km of fences, 4 088 road drainage structures and 4 560 km roads[20]. Since 2001, SANParks has spent R 2.6 billion on infrastructure projects, including new and upgraded fences, roads, other bulk services, new tourism facilities, the upgrading of existing tourism facilities and new and upgraded staff housing (SANParks, 2020). New tourism infrastructure has been created in most parks, with the upgrading of old tourism infrastructure mainly in the Kruger National Park. SANParks performs a systematic assessment on the condition of their infrastructure every two years. In 2021 SANParks developed a Maintenance and Re-capitalisation Management Plan (SANParks, 2021) to assist with the prioritisation of maintenance and capital budgets in light of anticipated continued budget constraints. One of the key findings of the Maintenance and Re-Capitalisation Management Plan (SANParks, 2021) is that while SANParks' assets are in good to fair health overall, assets which are in fair or

[19] Key informant (NP1) interview 16 April 2021
[20] SANParks Presentation to the Department of Tourism, 2017

poor health will require significant backlog maintenance where planned maintenance work was not undertaken in the prior periods as scheduled. The current replacement value of the infrastructure in the National Parks is R 16,173 billion, of this total R 11,251 billion is for infrastructure assets in the Kruger National Park (SANParks, 2021). Table 11 below provides a breakdown of the different infrastructure asset types for national parks in various regions.

Table 11 Infrastructure Asset Types for SANParks in various regions

Function Group	Arid	Cape	Frontier	Garden Route	KNP - Marula	KNP - Nxanatseni	Northern	Grand Total
Building	820	612	709	675	3 434	1 654	710	8 614
Electrical	26	16	13	4	496	227	31	813
Fence	24	36	29	0	161	78	31	359
Other Civil Assets	29	65	40	50	511	101	58	854
Roads	255	288	247	96	965	599	181	2 631
Sewer	7	3	2	4	43	33	8	100
Water	315	62	185	23	645	495	125	1 850
Grand Total	1 476	1 082	1 225	852	6 255	3 187	1 144	15 221

(Source: SANParks, 2021: 29)

The Kruger National Park (KNP) has been described as the goose that lays the golden egg (Mabunda, 2005; Ferreira, 2019). In 2017, the KNP earned R 992 million (Chidakel, Eb & Child, 2020) in revenues from 1.8 million tourists (SANParks, 2017). The KNP is not just a success story in its own right but serves as a catalyst for wider economic impact. An economic impact assessment study was completed for both the Kruger National Park and the Greater Kruger National Park (Chidakel, Eb & Child, 2020). The Greater Kruger National Park area, with the KNP at the centre, which includes a number of Provincial and privately owned Game Reserves, is depicted in Figure 11 below.

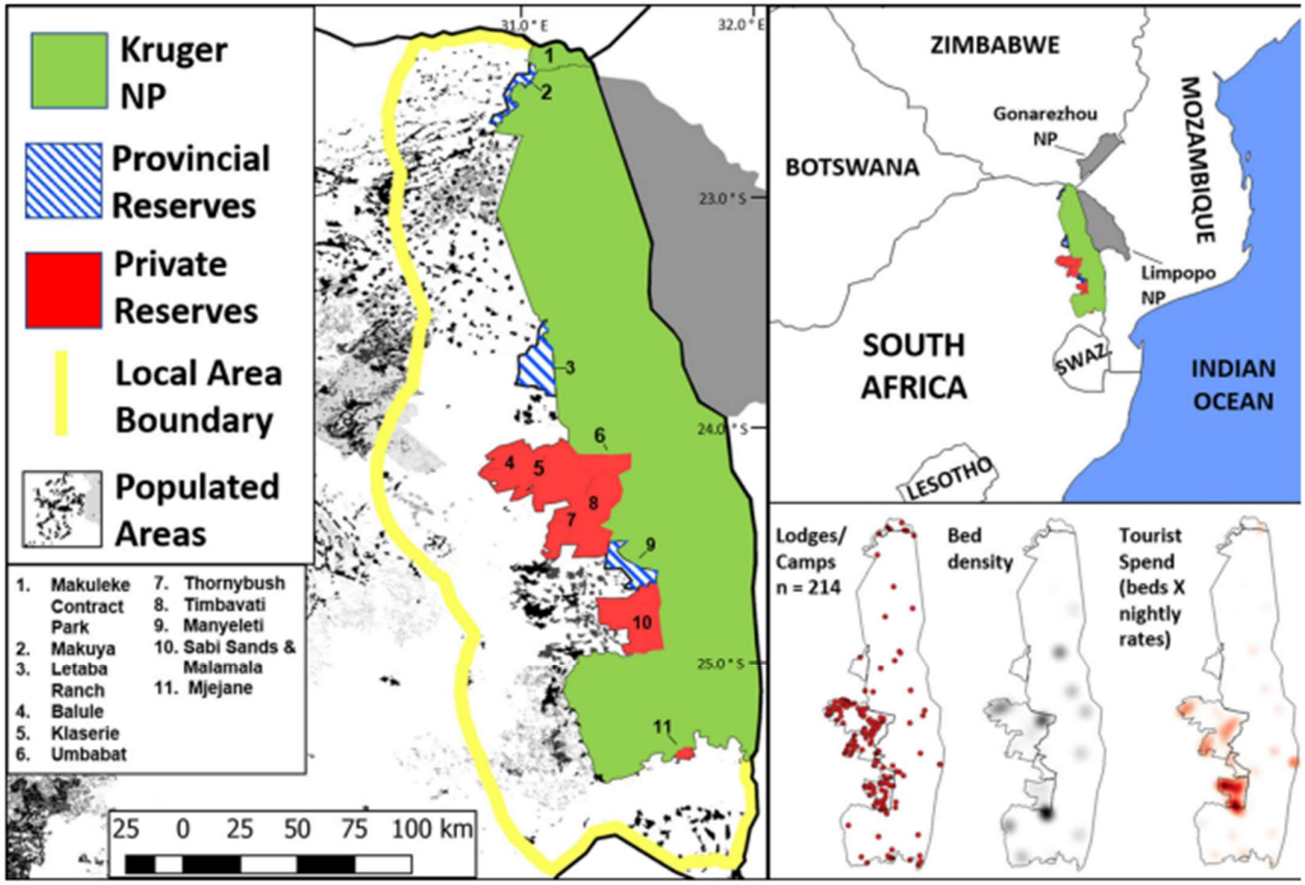


Figure 11 Map of the Greater Kruger National Park (Source: Chidkadel, Eb & Child, 2020 Figure 2:1104)

The economic impact assessment study (Chidakel, Eb & Child, 2020) revealed that in the 2016/17 financial year, the Greater Kruger National Park's direct contribution to GDP was R 2.6 billion, which increases to R 6.6 billion when multiplier effects are considered. This study also revealed that in the same financial year, the Greater Kruger National Park created 10 388 jobs with a wage bill of R 1.2 billion and direct contribution of R 1 billion to tax revenues. The breakdown in contributions between the Kruger National Park and the Provincial and Private Game Reserves is reflected in Figure 12 below.

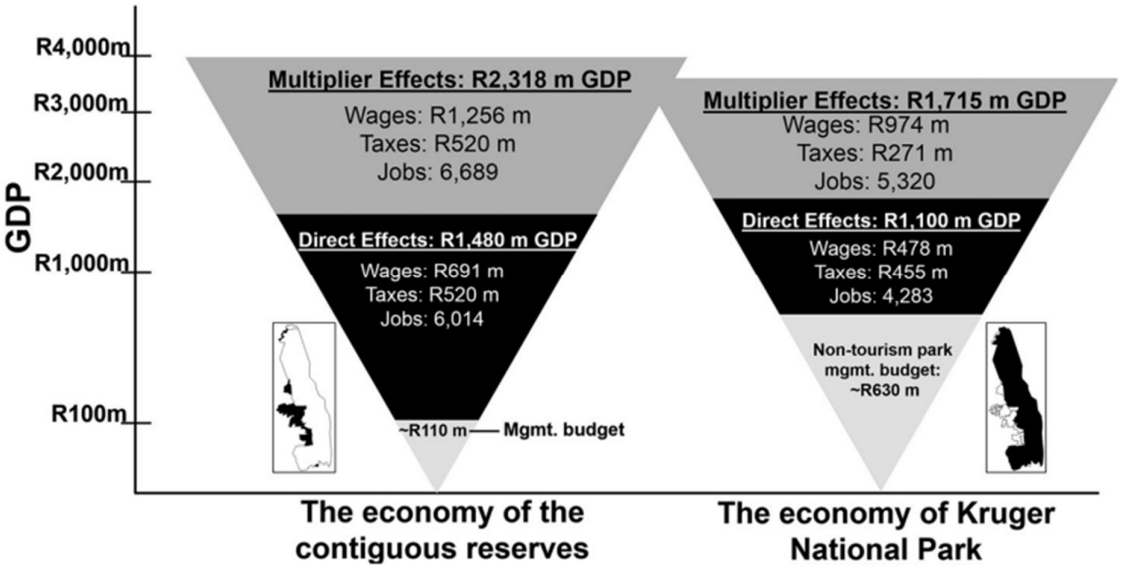


Figure 12 The scale of the Greater Kruger National Park Economy (Source: Chidkadel, Eb & Child, 2020 Figure 4:1111)

The Kruger National Park was opened to tourists in 1928 (Ferreira, 2019). Rangers are credited with creating the iconic KNP as they built the original accommodation and roads; by 1929 they had built 77 huts to accommodate tourists (17 at Skukuza, eight at Pretoriuskop, four at Malelane, three at Lower Sabie, 22 at Satara, eight at Olifants, four at Gorge and 12 at Letaba) (Mabunda, 2005). Tourists had to provide their own linen and food and had to fetch water from the nearby rivers or wells (Joubert, 1986a, 1986b as cited in Mabunda 2005). Facilities at the Kruger

National Park have expanded since those early days. In 2018 the Kruger National Park had a 4 400 overnight bed capacity, excluding camping sites, in its 22 rest camps and 15 private lodges (Ferreira, 2019). The tourist numbers have gone from approximately 600 in 1928 to 1.8 million in 2017 (Ferreira, 2019). Most of the camps in KNP were constructed between 1928 and 1991 and the infrastructure has aged (Mabunda, 2004). According to Ferreira (2019), the Marula region of the KNP is in the mature or consolidation phase of Butler's TALC with the first signs of visible stagnation; guest feedback showed a 68% negative response.

Accommodation received the most negative comments with a common theme of "poorly maintained accommodation"; there is visible aging of the accommodation, public ablutions, camps and picnic sites (Ferreira, 2019). General maintenance and cleanliness are a serious challenge and given that more than 80% of park revenues are derived from overnight accommodation (Ferreira, 2019), revenues will decline as the infrastructure deteriorates. The SANParks Management team attribute this deterioration in infrastructure to limited maintenance budgets and time consuming procurement processes[21] (Ferreira, 2019; key informant interview, 2021). Mabunda (2005) describes decisions by successive Park Wardens to cut maintenance budgets as a result of decades of underfunding as "suicidal". Sadly, the funding challenges are likely to persist.

With the exception of the recently completed Skukuza Conference Lodge, no new additions to the accommodation are expected in the Kruger National Park, with the focus being on maintenance and the upgrading of current facilities (Ferreira, 2019). The Figures below provide a summary of the maintenance budgets required by all national parks (excluding the Kruger National Park) and separately by the Kruger National Park.

[21] Working within the SANParks system, planning for greenfield/new infrastructure projects can take 12 months and procurement processes 18 months or longer (Key informant (NP1) interview 16 April 2021)



Figure 13: Maintenance budgets required for all National Parks, excluding the Kruger National Park (Source: SANParks, 2021:18)

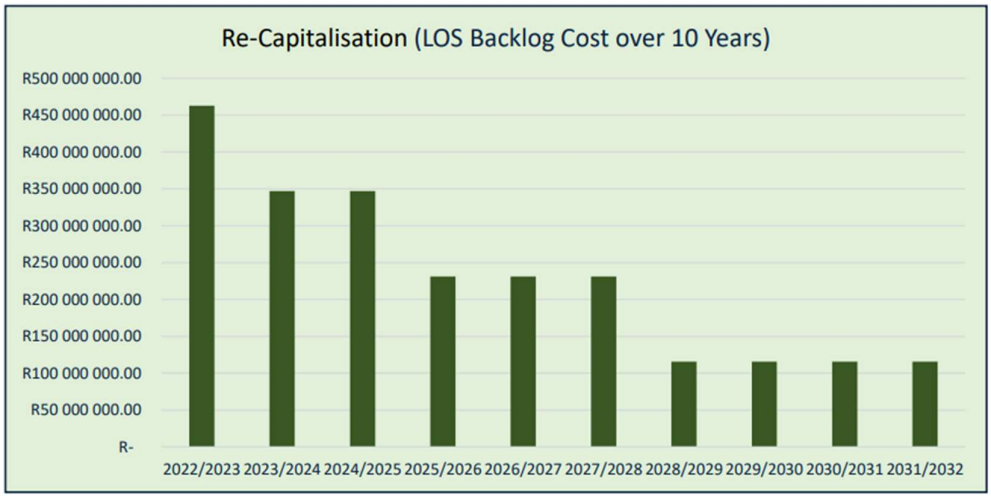


Figure 14: Maintenance budgets required for the Kruger National Park (Source: SANParks, 2021: 18)

The Department of Tourism recognises the tourism value of the National Parks. As a result the Department has provided significant funding to the National Parks for a variety of infrastructure project, totalling R 309 million between 2017 and 2019

(SANParks, 2020). This included funding of R120 million[22] for the development of the Dinosaur Interpretation Centre at the Golden Gate National Park in Clarens, Free State; R 110 million for infrastructure maintenance in all National Parks; funding of a tourism monitor programme which provides both tourist information and safety and support; funding of solar voltaic panels at the KNP and Karoo National Park; and funding for student dormitories at the Mapungubwe National Park. Table 12 below provides a summary of SANParks projects funded by the Department of Tourism in the 2019/20 financial year.

Table 12: Summary of SANParks projects funded by the National Department of Tourism in 2019/20 Financial Year

Programme	No of People	Person days	FTEs	Training Days	SMMEs	Amount paid to SMMEs ('000)	Actual expenditure (R'000)
Tourism Monitors	292	39 662	172	-	-	-	R 14, 539
Golden Gate Highlands National Park Dinosaur Centre	56	4, 010	17	100	5	R 0, 990	R 0, 099
Addo Extension Rest Camp	64	5, 333	23	190	5	R1, 109	R 1, 356
SANParks Infrastructure Maintenance	200	13, 916	61	307	20	R 3, 353	R 3, 565
Total	612	62, 921	274	597	30	R 5, 452	R 19, 559

(Source: SANParks, 2020: 79)

[22] This funding was provided by the European Union through a partnership between National Treasury, the Department of Tourism and SANParks

SANParks requires an annual maintenance (planned and routine) budget of R 374 million. In 2017 their maintenance budget was R 145 million. As part of Presidential Jobs Summit in 2018, the Department of Tourism provided R 110 million to SANParks to supplement their infrastructure maintenance programme over a three year period. As stated elsewhere in this report, this funding was informed by the researcher's growing understanding of the challenges of infrastructure maintenance as a result of engagement with her supervisor and the Infrastructure Scorecard for South Africa. The maintenance programme in the National Parks has been particularly successful in not just providing jobs, but also in growing the SMMEs who have improved their CIDB[23] grading through involvement in this programme. The maintenance programme has been run in 19 National Parks: the Kgalagadi Transfrontier Park, Augrabies Falls National Park, Richtersveld National Park, Mokala National Park, West Coast National Park, Table Mountain National Park, Agulhas National Park, Wilderness National Park, Tsitsikamma National Park, Knysna National Park, Addo Elephant National Park, Camdeboo National Park, Mountain Zebra National Park, Karoo National Park, Golden Gate Highlands National Park, Marakele National Park and Mapungubwe World Heritage Site and National Park.

At the time of drafting this thesis, R 82,081,695 of the total budget of R 110 million had been spent on the maintenance programme. The cumulative employment created through the maintenance programme, which uses an Expanded Public Works Programme (EPWP) approach is outlined in Table 13 below.

[23] The Construction Industry Development Board (CIDB) is a statutory body. All building contractors need to be registered with the CIDB in order to work in South Africa. A contractors CIDB grade is determined through 1) track record of work delivered and 2) project capital. Improved CIDB gradings usually improve a contractors business opportunities.

Table 13: Cumulative employment created in the National Parks through the maintenance programme

No of SMMEs	Number of people employed to date	Person days	Full time equivalents (FTEs)	Number of Women	Number of Youth	Number of People with Disability
60	857	225 159	979	321	506	24

The maintenance delivered is outlined in Table 14 below

Table 14 Deliverables on National Parks maintenance programme

Category	Activity	2021/22
Buildings & Civils	No of buildings maintained (clean, fix small things)	4,226
	No of units painted – internal	1,357
	No of units painted – external	1,441
	Painted Area (m²)	150,388
	No of units – tiling	158
	Tiling (m²)	2,997
	No of Decks maintained	140
	Size of decks maintained (m²)	3,114
	No of toilets/plumbing fixed	1,097
	No of water pipeline repairs	654
	No of sewer pipeline/drains/septic tank repairs & new	654
Roads	Km of roads maintained (fixing holes, removing rocks, etc.)	838
	Km of road verges cleared (removal of vegetation/ rocks / etc.)	784
	No of drainage structures cleaned	441
	No of potholes repaired	1,913
	Paving Repairs (m²)	1,299
	New Paving (m²)	8,740
Fences	Km of fences maintained (patrol & fix holes, wiring, poles, etc.)	2,580

Category	Activity	2021/22
	Km fence rock packed	123
	Km of fence cleared (Removing vegetation, spraying herbicides)	676
	Km of fence constructed	566
Thatched roofs	No of units re-thatch	112
	No of units - thatch maintained	433
Rehabilitation, cleaning	No of days: Rubbish pick-up.	1,302
	No of days: Garden work	982
	No of Areas rehabilitated	432
	Area rehabilitated - m²	65,325
	No of erosion structure build	73
Other	Boardwalks maintained – meter	361
	Boardwalks constructed – meter	121
	Footpath Maintenance – meter	102,280
	Trenching for services – meter	18,506
	Pool cleaning daily	117
	Making & Stacking Bricks – amount	1,004
	Assisting park with daily tasks	1,487
	No bridges maintained/repaired	25
	Removal of old pole of Fences	691
	Removal of old fencing (km)	1
	Erect a fence with droppers – meter	6,182
	Boma maintained	42
	Chipper operation	3
	No. of days – Pruning	92
	No of windmills maintained	11
	Solar panel maintenance	20
	Gravelling of parking lot - m²	780
	Casting of concrete slab - m²	35

Category	Activity	2021/22
	Gravelling of Parking Lot - m²	780
	Casting of Concrete Slab - m²	35
	Litter pick-up (black bags) N9	814
Electrical	No of light bulbs replaced	1,082
	No of lights cleaned	3,406
	No of stoves/geyser/pillar box/heat pumps/aircons/fans replaced	500
	No of plugs & switches replaced	373
Welding	No. of welded item	499
	Area of welded item m²	6,768
Carpentry	No. of furniture fixed(chairs, tables and benches	856
	No. of furniture maintained	380
	No. of new furniture	30

On 6 May 2022, SANParks issued a press release announcing the commencement of a R 370 million infrastructure upgrading and refurbishment programme to be implemented in the Kruger National Park over the next three years. This funding is largely public sector funding from the Departments of Tourism and Forestry, Fisheries and Environment with a small portion of funding from insurance. The tourism facilities prioritised for completion utilising this funding include Shangoni Phase 1 (which includes picnic spots, camping sites and the Shangoni Reception Facility); the upgrading of five entrance gates at Pafuri, Punda Maria, Orpen, Phabeni and Numbi; Punda Maria tent upgrades; repair and upgrading of viewing decks and restaurants as well as the renovation and upgrading of more than 110 accommodation units across the Park. This is a very exciting development for an iconic international tourism attraction.

SANParks applies responsible tourism principles to all of its infrastructure work. In this regard SANParks implements an Energy Efficiency Programme. All national parks have an annual target of 2% reduction in the use of fossil fuel generated

energy and the use of water over the next five years (SANParks, 2020). This programme includes awareness campaigns, retro-fitting of existing facilities, meeting green building standards for new infrastructure and solar power installations. SANParks also runs an Integrated Waste Management Programme aimed at reducing both the generation of, and the environmental impact of waste. Measures are continuously being undertaken to ensure the effective conservation of fresh-water sources.

4.2.3 Analysis

Tourism infrastructure in SANParks as described by participant NP is intended to serve a tourists needs and ranges from the transport and bulk infrastructure to the accommodation and experiences that a tourist has in the National Parks.

All the infrastructure that you need to get a tourist to the Parks, to accommodate them and all services that they need to have an experience. We sometimes think that it's just the chalet but we tend to forget that a tourist needs to travel on a road to get there, they require a product e.g. if it's a game viewing product, and there are bulk services, water, electricity that are provided in the national parks, (that) must be there and must be upgraded and increased as tourist numbers increase. And then there is the experience that you want to give to a tourist if it's game viewing then you have travel on the roads, viewpoints for tourists, picnic places, but also your restaurants or your chalets. It's quite integrated from getting them there, to hosting to all the different experiences that they expect. The shortcoming is that we start at the boundary of the National Park with very little influence on what happens outside the National Park. We try to move out of the National Park boundary, but it's not always easy in terms of planning of other government entities and what is included in the local municipality plan and can it accommodate what we are planning? NP1

From definition provided by participant NP1 it is clear that there are several components to the infrastructure provision in National Parks. This provision ranges from bulk infrastructure to roads, accommodation, signage and picnic sites. Services and experience are also considered to be critical for tourists. This is consistent with the literature that infrastructure impacts on the experience and satisfaction levels of tourists (Dwyer & Kim, 2003; Mo, Howard & Havitz, 1993; Ritchie & Crouch, 2000).

Despite the extremely organised infrastructure planning at SANParks, there are number of challenges for the infrastructure programme. Despite attempts to streamline processes for more effective infrastructure delivery, typically within the SANParks system infrastructure projects require 12 months of planning and procurement processes requires 18 months, sometimes much longer for greenfield projects[24]. Procurement processes for infrastructure projects that require heritage impact assessments can take up to 24 months. Initially infrastructure procurement matters were handled by an infrastructure committee, but systems of procurement have now been centralised with all project of R 15 million or more requiring Board approval. The board meets on a quarterly basis and this can affect the pace of infrastructure implementation.

Spatial planning is a feature of infrastructure planning in the National Parks as confirmed by this statement from the key informant interviewee *"Each Park Management Plan has a zonation plan, (which) tells you what can happen at each part of a park used to be for 5 years, now exists for 10 years." NP1.* These plans are further consolidated into capital development or product development plans. The National Parks have little influence over and control of infrastructure development beyond their boundaries which can sometimes affect the consistency of the visitor experience. Visitation to National Parks is impacted upon, for example, by poor road infrastructure leading to the National Parks.

[24] Key informant (NP1) interview (16 April 2021)

Participant NP1 expressed that a broader spatial plan would be helpful to outline the role the national, provincial, local government in areas surrounding the boundaries of National Parks.

The product development strategy, identified priority parks for product development. In terms of this, prioritising the parks, we then looked at the specific products for the area. This was then consolidated further into a funding product list. Added to this is SANParks commercialisation strategy, allocations from the Department are the only constant funding that we rely on – have a three year MTEF budget R 102 million per annum. Also take into account the cost of the maintenance, also have a 10 year capital development and maintenance plan but needs for a year are not catered for, must be better alignment between funding, planning and implementation. Planning can only be done with project funding. NP1

The statement above confirms that SANParks also has a clear tourism product and market development strategy which is informed by a demand and supply analysis. However, despite this being sufficiently detailed to guide investment in the tourism-product base, the key challenge for the SANParks remains funding shortfalls for maintenance work and new infrastructure development. Additionally, although each National Park has an individual plan and these plans are integrated into broader strategies, there isn't an overarching blueprint for infrastructure development SANParks across all national parks. Participant NP1 expressed that an overarching blueprint would assist to provide a complete picture of infrastructure requirements and assist with long term budgeting. While project based funding from external parties is welcomed, participant NP1 expressed that it would be better if the funding supplemented operational budgets as this would allow for improved longer term planning of infrastructure.

Participant NP1 indicated that the infrastructure team in the Parks Division, which excludes the Kruger National Park has a dedicated team of only 24 people which

includes finance, project support and specialists. As funding can sometimes be provided with short notice, as in the case of funding for the maintenance programme from the National Department of Tourism, a panel of consultants has been set up. This provides a pool of people e.g. project managers and built environment professionals whose services can be drawn upon as and when required. However, this attempt to resolve the challenge of adequate skills to support the infrastructure work is hampered for two reasons. The source of additional project budgets is often other public sector Departments which restrict budget use for project management purposes to 7% of the project budget. This impacts on the ability of SANParks to employ and retain built environment professionals to manage infrastructure projects in National Parks. An additional factor that affects the retention of built environment professionals is the remoteness of most National Parks.

Although there are obvious advantages to SANParks being able to manage all infrastructure matters within the boundaries of the National Parks, there are also drawbacks. As all National Parks fall outside of municipal boundaries Municipal Capital Expenditure Frameworks and Metropolitan Municipalities Built Environment Performance Plans have no role to play in the tourism infrastructure development in SANParks. All bulk infrastructure within the National Parks are managed by SANParks. Access to funding available to provincial and local government e.g. municipal infrastructure grants are therefore not available to SANParks. SANParks is also not part of the broader provincial and local government processes, although all National Parks must participate in IDP planning processes, this only occurs where local municipalities are well organised and invite National Parks to these planning processes. Although there is excellent, even exemplary, planning of tourism infrastructure within SANParks, this is not integrated into broader infrastructure planning at local, provincial and national spheres of government.

4.3 Case study of Gauteng

4.3.1 Introduction

Gauteng is the smallest but most populous of the 9 provinces in South Africa. Home to approximately 16.1 million people (StatsSa, 2019), Gauteng is the financial capital of South Africa contributing R 1.59 trillion to South Africa's GDP of R 4.65 trillion. A recent study (Meyer 2021) concluded that tourism has a significant positive impact on economic growth in the Gauteng Province. Results indicate that a 1% increase in the tourism sector's gross value-added activities could result in between 0.86 to 0.89 percent increase in GDP per capita (Meyer 2021). This finding supports the use of tourism as a strategy for reduction of poverty and unemployment. That study also advocates that public/private partnerships are instrumental in increasing the contribution of tourism to regional economies. The study further indicates that tourism could play an important economic development role even in regions where tourism is not the key economic driver.

4.3.2 How is tourism infrastructure planning undertaken?

Historically, through the Blue IQ Programme, the Gauteng Provincial Government invested in four tourism projects. The Dinokeng and the Cradle of Humankind World Heritage Sites (COH WHS) were two of these projects. These projects were conceptualised as Strategic Economic Infrastructure Investment Projects (SEIIPs), as part of the ten Blue IQ (historically) projects of the Gauteng provincial government. The R2 billion Blue IQ projects were an infrastructure investment initiative of the provincial government implemented between 2000 and 2010 in order to create jobs and grow the local economy through investment in SEIIPs in transport (Gautrain, Johannesburg International Airport), high value-added manufacturing (Wadeville Alrode Corridor, City Deep, Rosslyn), technology (The

Innovation Hub) and Tourism (Constitution Hill, Newtown; COH WHS and Dinokeng). The SEIIPs were to utilise public sector funding of infrastructure to leverage further private sector investment. In retrospect, the Dinokeng and COH WHS were among the first of what is now called Strategic Integrated Projects (SIPs). The COH WHS project was also conceived as a partnership between the Gauteng Provincial Government and University of the Witwatersrand since ongoing scientific research is integral to tourism development.



Figure 15 Blue IQ Projects and their locations within the Gauteng Province of South Africa (Source: Blue IQ Marketing Materials 2000. Note: NEGI refers to the North Eastern Gauteng Initiative which was the original name of the Dinokeng project)

Detailed Masterplans were completed for both projects in 2001. The Masterplans were produced by a multi-disciplinary consulting team, overseen by the Dinokeng and COH WHS teams who were in turn supported by a Tourism Specialist Team at the Development Bank of Southern Africa (DBSA). A large part of the success of

the development and implementation of the Masterplans was strong political, strategic and operational leadership. The Masterplan process was directed by a vision of tourism-led economic development and job creation in both these areas, and underpinned by public participation in shaping this vision. The Masterplans served as a blue print for development, which included the integration of tourism, infrastructure, land use, environmental and conservation management. The Masterplans for both Dinokeng[25] (Gauteng Provincial Government, 2001a) and the Cradle of Humankind[26] (Gauteng Provincial Government, 2001b) were envisaged to have 10-20 year implementation timeframes and were conceptualised as public/private partnerships. Also critically important was that the Dinokeng and COH WHS were primarily intended to serve domestic tourists. The Masterplans for both projects resulted in tourism concepts simply described as creating central tourism attractions that would draw visitors into an area and a network of smaller tourism attractions that would circulate visitors around the area.

In Dinokeng, the central tourism attractions were referred to as Hubs and the smaller tourism attractions were referred to as Nodes (Gauteng Provincial Government 2001a). These themed Hubs and Nodes are outlined in Figure 31 below. Dinokeng was proposed as a space to explore nature, culture and history, with the marketing catch phrase of "All of Africa in a Day". Three hubs were identified i.e. the Dinokeng Game Reserve (a Big 5 Game Reserve within an hour's drive of the major cities of Johannesburg and Pretoria); Roodeplaat Dam and the Cullinan Mining Town. Four cultural nodes were also identified. To ensure linkages between the "All of Africa Circuit" and existing visitor attractions, themed routes, scenic routes, and a Dinokeng meander were also proposed. Further to facilitate visitor circulation, the establishments of gateways were proposed at

[25]The Dinokeng Masterplan comprised of a 7 volume summary document finalised in 2001 titled the "Dinokeng Integrated Tourism Development Framework (DITDF)" and nineteen individual reports. The individual volume of the DITDF included aTourism Development Framework, Land Use, Environmental Management and Infrastructure Development Framework, Financial Plan and Economic Impact and Institutional Arrangements.

[26]The COH WHS Masterplan comprised of an 18 volume set of reports finalised in 2001, which included environment and conservation management; heritage management; tourism management; marketing; infrastructure development; community benefits, Public Private Partnership (PPP) and institutional arrangements.

Cullinan, Roodeplaat and Mandela Village, with strategically located intermodal transport areas. The creation of regular events was also seen as being critical to the tourist experience. The Masterplan for Dinokeng also carried out a detailed assessment of all the elements of infrastructure i.e. roads, airstrips, water, piped sewerage and sanitation, electricity, communications, and infrastructure for visitor and staff safety and security.

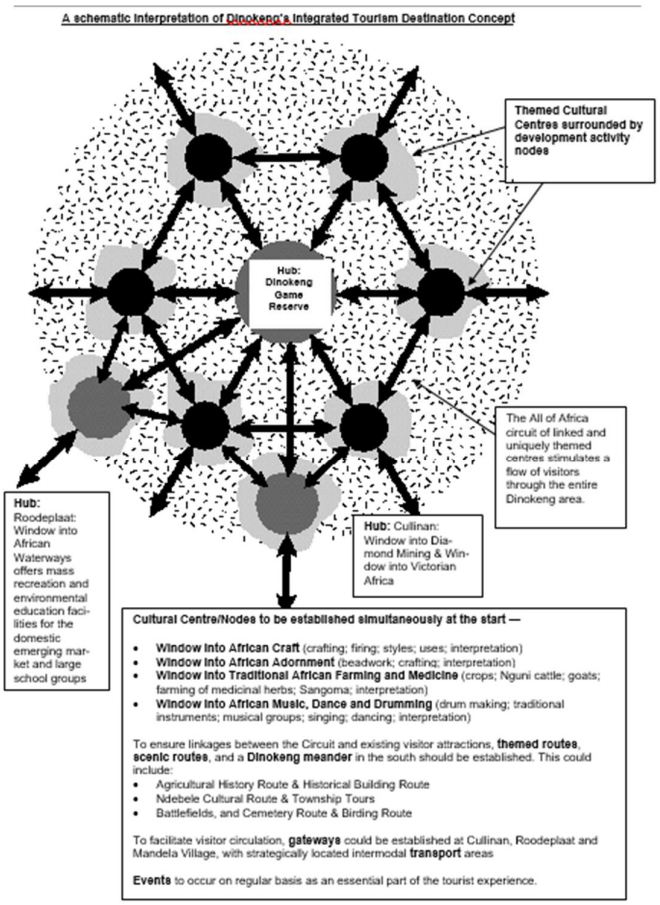


Figure 16 Dinokeng Integrated Tourism Destination Concept of Hubs and Nodes (Source: Gauteng Provincial Government 2001, Dinokeng Integrated Tourism Development Framework:5)

The COH WHS Masterplan (Gauteng Provincial Government 2001b) envisaged a network of tourism interpretative facilities. The vision for the Cradle of Humankind was "to achieve an acceptable balance in the World Heritage Site

between the conservation of cultural and natural resources, access, education, and scientific research, the interests of those living and working in the area, and its use for the economic and social benefit of the population at large, within the framework of the World Heritage Convention." For the Cradle of Humankind, the central tourism attractions were referred to as the Interpretation Centre Complex (ICC) and the smaller tourism attractions were referred to as Orientation Centres (OCs). The already established Sterkfontein Caves (to be upgraded and refurbished post Masterplan) and the newly established Maropeng Visitor Centre comprised the Interpretation Centre Complex (ICC). Four Orientation Centres themed on the Aristotelian[27] elements of Air, Water, Fire and Earth were initially proposed but only two, i.e. Magaliesburg and Lanseria, were found to be financially viable. The proposed OCs were intended to be strategically located at key entry points to the COH WHS on access roads from major populations in the feeder areas to the site. The OCs were envisaged not only to orientate visitors to the COH WHS but also to encourage trips to the ICC and numerous private sector tourism offerings in the broader COH WHS tourism catchment area. In addition to the ICC and OCs, the Masterplan also proposed the development of fossil site specific interpretation facilities at excavated sites; visitor information points; view sites and scenic routes connecting the interpretive network with diverse tourism product offerings; upgrading of road infrastructure and signage; development of a network of hiking trails and cycle tracks. Similar to Dinokeng, the COH WHS Masterplan also ran an assessment of all aspects of infrastructure including water supply, sanitation, electricity and energy supply, waste management, roads and storm water drainage and telecommunication (Gauteng Provincial Government 2001). Given the importance of the cave, fossil sites and the Karst system in this

[27]**Water** – The COH WHS is critically connected to the theme of water in that there are many underground aquifers in the site and the COH WHS is part of a vast karst system. Water is regarded as a life theme and a theme for sustainable development. ; **Fire** – The Swartkrans cave has evidence of the earliest controlled use of fire. The connection between this harnessing of energy and electricity and nuclear power at Pelindaba at the northern end of the site makes this a theme very pertinent to the COH WHS and human development; **Air** – Air is a critical point of human development and survival; and **Earth** – The planet is located in space and its future is influenced by the ecological footprint of human activity. The geological characteristics of the COH WHS are significant for the fossil as well as archaeological artefacts found within the COH WHS.

protected area, special attention was focussed on land use management, management of water resources and land-based waste management.

Between 2000 and the present, the State has invested about R 200 million in Dinokeng. Investments have been made directly into the development of Dinokeng Game Reserve. This first free-roaming Big 5 Reserve was officially opened in September 2011 (Gauteng Provincial Government, 2012). Funding was also provided for supporting infrastructure e.g. roads, traffic calming measures, signage and gateways into the Dinokeng Game Reserve. The Roodeplaat Dam Hub, Cullinan Hub and related nodal developments have not yet materialised but detailed planning is currently in progress (Gauteng Provincial Government 2020). Government investment in the area has seen the growth in tourism products from 68 in 1999 to 286 in 2012[28]. The total impact of the tourism activities in Dinokeng on the GDP of Gauteng was estimated to increase from R1.4 billion in 2009 to R 2.76 in 2025; direct jobs were estimated to increase from 4 687 in 2009 to 9 017 in 2005; and total employment was estimated to increase from 9 795 in 2009 to 18 842 in 2025 (Gauteng Provincial Government 2012a).

Between 2000 and the present, the State has invested about R 300 million in the COH WHS. Investments have been made directly into the development of Maropeng and Sterkfontein Interpretation Centre Complex. Funding was also provided for supporting infrastructure e.g. bulk infrastructure, roads, traffic calming measures, signage, cycle lanes, mountain bike and hiking trails. The holistic development of infrastructure in the COH WHS is largely attributable to two elements. The first element is strong political, strategic and operational leadership and the second is the progressive implementation of a detailed integrated Masterplan. Although the Orientation Centres envisaged in the Masterplan were not developed, this has detracted from the overall success of the COH WHS.

[28] Dinokeng Annual Report 2012/2013

The COH WHS project was conceptualised as a tourism development initiated to drive increased jobs and growth in the Province's north western region. Although a direct causal link is difficult to establish, since the listing of the COH as a WHS, government investment in the area has seen the growth in tourism products from 69 in 1999 to 401 in 2012[29]. In the development of the Maropeng and Sterkfontein Interpretation Centre Complex (ICC), 1200 temporary and 600 permanent jobs were created. In 2012, 6 008 jobs were sustained in the COH WHS area as a result of tourism; this number was expected to grow to 6 447 by 2015 (Gauteng Provincial Government, 2012b). One hundred and ten (110) jobs have been created directly by the Maropeng and Sterkfontein ICC. In 2008 constant figures the GDPR forecasts for the COH WHS indicated an annual increase in tourism turnover from R 819 m in 2012 to R 895 m in 2015 (Gauteng Provincial Government, 2012b). The impact of total tourism expenditure on GDPR in 2012 was R682m, increasing in 2015 to R745m.

Gauteng is the only Province in South Africa which has completed a systematic analysis of tourism infrastructure, including the interface between transport and tourism. This has been achieved through the development of the Gauteng Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government 2012c) and the Gauteng Integrated Tourism Transport Plan (Gauteng Provincial Government 2015). This analysis revealed that since 1994, tourism infrastructure investment strategies in the province have largely been informed by the 1997 Gauteng Trade and Industrial Strategy, the national Priority Areas for Tourism Infrastructure Investment (PATII) and mega events hosted by the Province.

The 1997 Gauteng Trade and Industrial Strategy laid the foundation for the Gauteng Spatial Development Initiative and led to the establishment of Blue IQ, mandated with the implementation of catalytic tourism infrastructure projects at

[29] Cradle of Humankind Annual Report 2012/2013

Newtown, Constitution Hill, Kliptown, COH WHS and Dinokeng. The national Priority Areas for Tourism Infrastructure Investment (PATII) initiative identified Soweto as a PATII, and the national Spatial Development Initiative (SDI) which identified the Coast-to-Coast initiative linking Mozambique with Namibia via Gauteng as a key SDI. Mega event-driven investments were also highlighted e.g. major international sporting events culminating with the 2010 FIFA World Cup South Africa. Business tourism amenities, event infrastructure as well as major transport facilities have all been developed in recent years. Nationally significant tourism related infrastructure in the province include the OR Tambo International Airport (ORTIA); the Sandton Convention Centre; at least three major stadia meeting FIFA requirements; Maropeng; Freedom Park; Constitution Hill; the Dinokeng Game Reserve; and the Newtown Cultural Precinct.

Importantly, the Gauteng Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government 2012c) also pointed out that, while Gauteng has an extensive tourism infrastructure base in place, these tourism assets are often underutilised or underperforming. The challenge facing the Province is twofold. Firstly, capital investment in existing and new tourism infrastructure needs to be unlocked. This will improve the general tourism environment in which attractions are located; strengthen linkages between attractions; and improve the quality of the tourist experience within tourism destinations. Secondly, and perhaps as a more immediate priority, interventions are required to increase operating budgets to ensure that tourism infrastructure is adequately managed and maintained.

The Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government, 2012c) formulated a strategic approach to tourism infrastructure that i) prioritised destinations, not individual tourism projects; ii) encouraged more compact destinations; iii) strengthened linkages with transit facilities, between the individual identities of precincts and interconnectedness between precincts; iv) support public access and the public domain v) does not neglect the 'minor'

infrastructure like signage and vi) ensures that all infrastructure that is developed is durable, robust and aligned with responsible tourism e.g. sustainable use of water and energy.

The Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government, 2012c) identified and comprehensively geographically mapped seven categories of tourism infrastructure, refined from more than 70 subcategories, as outlined in Figure 17 below.



Figure 17 Seven categories of tourism infrastructure (Source: Gauteng Provincial Government, 2012c, Summary presentation on the Gauteng Infrastructure Strategy and Plan)

The purpose of the Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government, 2012c) was to i) facilitate and support geographic spread of tourism and improve connectivity and accessibility; ii) provide the infrastructural platform upon which Gauteng could increase visitor numbers, yield, seasonality and length of stay; iii) satisfy existing and future infrastructure requirements to support the ongoing responsible and sustainable development of tourism, and iv) Support and

strengthen existing and new tourism clusters to improve viability, density and tourism asset formation.

The above aspects were envisaged to be achieved through i) addressing tourism infrastructure gaps at high usage destinations and flagship attractions; ii) addressing tourism infrastructure gaps at underperforming destinations and flagship attractions; iii) guiding infrastructure investment at new tourism products and developments, and iv) using demonstration projects to demonstrate, visibly, the benefits of investing in tourism infrastructure.

A key element of the strategy development included the formulation of provincial tourism infrastructure guidelines (collated as a toolkit) to assist with the planning, delivery and management of tourism infrastructure across Gauteng's varied destinations. The toolkit was intended to be used to conduct tourism infrastructure audits, with a view to i) provide the basis for identifying infrastructural gaps, and ii) address infrastructural gaps through the necessary institutional, planning, budgeting and monitoring and evaluation arrangements.

The Gauteng Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government 2012c) also highlighted the critical importance for tourism infrastructure to be comprehensively provided for as part of the tourism planning process since tourism infrastructure provides the structural platform for further growth in the sector. The strategy further recommended holistic planning for tourism at a destination level whether this is done through tourism sector plans (or more comprehensive tourism destination Masterplans) or through other government planning processes. In order for tourism to be successful a "whole-of-government" or integrated planning approach to the delivery of tourism within a tourism destination is required.

The Gauteng Tourism Infrastructure Strategy and Plan (Gauteng Provincial Government 2012c) further highlighted that current tourism planning does not

consider infrastructure maintenance and operations. Within the context where public sector asset owners often find it easier to unlock capital budgets as opposed to long-term operating budgets, it is important that adequate resources are committed upfront for the medium and long-term management of assets through both scheduled and unscheduled maintenance programmes. This requires that implementing and management agencies tasked with the development and ongoing management and maintenance of infrastructure must have the required asset management frameworks, processes, systems and procedures in place. New infrastructure investment should not be undertaken unless there are arrangements in place upfront for the long-term management and operations of these assets. Unfortunately, there has been very little progress in the implementation of the Gauteng Infrastructure Strategy and Plan.

Results of a visitor satisfaction survey (Grant Thornton in 2014 as cited in Gauteng Provincial Government, 2015) highlighted that Gauteng was not perceived to be delivering quality local transport.



Source: Grant Thornton, 2014

	Domestic	Foreign Air	African Border	Overall Index
Number	10 329 662	1 371 425	2 902 416	
Spend Rbn	21 951	17 344	18 996	
Weight	3	3	2	
	Balance statistic	**Balance statistic**	**Balance statistic**	**Balance statistic**
Overall Satisfaction with Gauteng as a Base/Hub		86.2	90.3	87.8
Overall satisfaction of trip	80.5	89.9	90.4	86.5
Accommodation service and quality	77.5	85.7	90.4	83.8
Accommodation value for money	79.5	86.2	84.3	83.2
Overall value for money	76.7	84.9	89.3	82.9
Restaurants value for money	76.3	87.9	85.1	82.9
Restaurants service and quality	75.8	86.3	87.9	82.8
Overall affordability	71.7	84.9	87.7	80.7
Friendliness / Hospitality of people	76.7	79.8	81.9	79.2
General infrastructure at destination (roads, rail)	69.2	79.1	91.9	78.6
Airports	69.9	87.1	64.8	75.1
Tourist attractions service and quality	70.4	81.5	64.8	73.2
Tourist attractions value for money	69.2	81.6	65.9	73.0
Natural Attractions such as nature reserves, scenery, etc.	71.6	60.9	73.1	68.0
Tourist information when planning your trip	66.8	55.3	69.6	63.2
Day Trips / Tours	74.3	36.5	77.2	60.9
Car hire	71.4	41.5	72.4	60.4
Tourist information at destination	69.1	37.6	74.6	58.7
Tourist guides	69.2	22.1	68.7	51.4
Visitor Information Centres / Tourism Offices	68.8	25.6	63.4	51.3
Local public transport	69.2	-20.3	83.3	39.2

Figure 18 Results of visitor satisfaction survey (Source: Grant Thornton 2014 as cited in Gauteng Provincial Government, 2015)

The Tourism Transport Plan (Gauteng Provincial Government, 2015) identified common areas between the two sectors (See Figure 19 below), outlined strategic priorities and projects and in so doing aligned the work of tourism with the Gauteng Transport Infrastructure Plan.

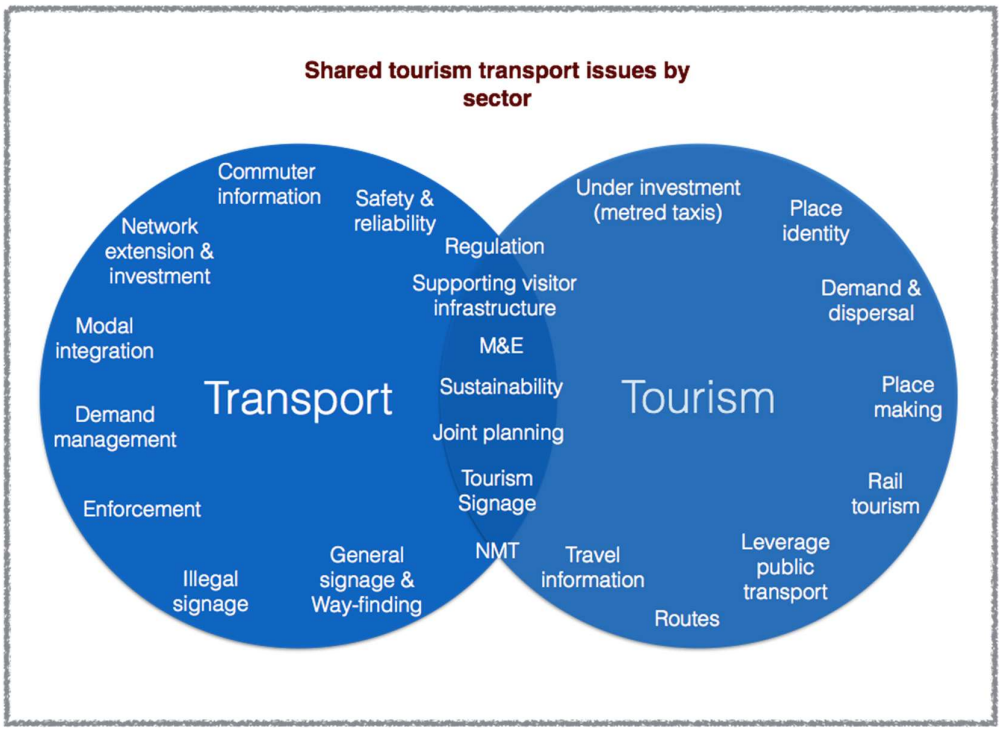


Figure 19 Venn diagram illustrating shared issues between transport and tourism (Source Gauteng Provincial Government, 2015)

Gauteng drives South Africa's economy, attracting highly skilled individuals. As a result, the Province generally sets the trend for innovation in both business and the State. The Gauteng Provincial Government, in recognition of the impact that infrastructure growth has on economic growth, has developed the Gauteng City Region Integrated Infrastructure Masterplan (Gauteng Provincial Government 2016). This Masterplan represents a R 1 592 billion investment in infrastructure development until 2030. At the time that this plan was being developed, the Gauteng Tourism Infrastructure Strategy and Plan (Gauteng Provincial

Government 2012c) had just been completed. Tourism officials at the time lobbied unsuccessfully for the Tourism Infrastructure information to be included in this plan. Provincial Infrastructure planners simply did not view tourism infrastructure as a significant contributor to infrastructure development. As a result, there is no information related to tourism infrastructure in this plan and nor does tourism find expression in the five new growth corridors[30] in the Province.

This exclusion of tourism might have been acceptable if only the core infrastructure priorities, like energy, transport and water, had been included in this plan. However, infrastructure priorities for sports, arts, culture and recreation, to the value of R 7.3 billion or 0.5% of the total budget, also find expression in this plan. Arguably, tourism will benefit from the investment in Transport Infrastructure systems across metropolitan boundaries through better connectivity within the Province. However, the exclusion of tourism from this broad Infrastructure Masterplan presents a lost opportunity to grow the tourism sector, as the projects and sectors outlined in this plan have direct political oversight by the Premier through the Gauteng Infrastructure Coordinating Council (GICC). These projects also find expression and alignment with the national priorities of Strategic Infrastructure Projects (SIP). In reality, the projects outlined in this plan will receive practical prioritisation through the allocation of public resources as was the case for the Blue IQ Programme outlined above.

It is argued that the gains made by the tourism sector in Gauteng are directly linked to the infrastructure development and investment in the Blue IQ tourism SEIIPs at Constitution Hill, Newtown, Dinokeng and Cradle of Humankind World Heritage Site. These gains for the tourism sector can easily be lost as the deliberate links between infrastructure and tourism are no longer being made.

4.3.3 Analysis

As a public sector professional I have been intimately involved in much of work outlined in the case study above as explained in Preface. The research however revealed some interesting and unexpected information. From outside perspective the masterplan in the Cradle of Humankind had always appeared very structured and deliberate. The research confirmed that in many ways this was indeed the case but serendipity also had a role to play as evidenced in the quote below from participant GP1.

The biggest incentive for finalising the fossil site management plans was tarred roads. Without the commitment to tarred roads the Cradle of Humankind would not have happened. When we started work in the Cradle our key interest was in finding a way to secure collaboration, we were not thinking about tarred roads and in retrospect why would we have because the idea is counter intuitive. For me it was more around incentivising rather than infrastructure but funnily enough for the fossil sites the incentive became infrastructure, how do you get through the infrastructure to access the sites. Now whenever I drive on those tarred roads, they make me happy because the roads were built with a respect for the place and what people wanted. GP1[31]

Both key informant interview participants, GP1 and GP2[32] highlighted that the idea for the Cradle of Humankind started with an exploration of an "interesting site" which led to a listing as a World Heritage Site and later a plan evolved of how to maximise the use of site. At the commencement of the process, neither tourism nor infrastructure had been factors of consideration. These two features only came into play once the Province had provided a budget for the project. In reflecting on the Dinokeng Project, participant GP2 highlighted that the planning and links between infrastructure and tourism were far more deliberate, a

[31] Key informant (GP1) interview (12 March 2021)
[32] Key informant (GP2) interview (7 May 2021)

consequence perhaps of lessons learnt from the Cradle of Humankind Masterplan process but also possibly also as a result of the technical competency of the multi-disciplinary team who developed the Dinokeng Masterplan.

Examples of what the Cradle developed as tourism infrastructure, I think the roads that they paved really assisted tourism in that area. And also the website that advertised all the businesses in the Cradle. The tarring of the roads was a very positive thing because after that there was a lot of development of new tourism businesses in that area because it was easier for tourists to reach the businesses. We definitely saw an increase in applications for businesses after those roads were tarred. LG2[33]

The tarring of the roads in the Cradle of Humankind happened by chance but the resultant impact on tourism as reflected by participant LG2 points to the importance of infrastructure that enables access of tourists, in hindsight it is fairly obvious that tourists can only visit sites that they can easily access but this was not the case at the time as evidenced by the reflection of participant GP1.

Spatial planning was not initially a key consideration in the Cradle of Humankind as explained by participant GP1

There were edges of spatial plans as the Cradle fell over two Provinces and 4/5 municipalities and we had to negotiate with all of them, the biggest issue was the rates regime and land taxes because at the time we were more interested in how to incentivise people to do the right thing rather than get them to comply with the rules, there were very good planners in the Municipality and we got personal relationships going in order to get things done. GP1

[33] Key informant (LG2) interview (5 May 2021)

However, it is clear from a review of more planning documents in the Cradle of Humankind e.g. the Surface and Groundwater Study and the Integrated Conservation and Heritage Management Plan that spatial planning later become an important feature of planning in the Cradle of Humankind. Spatial planning was an important feature of the original Dinokeng masterplan process, again likely as a result of the nature of project and the skills of the technical team that was involved in the masterplan process. In both the Cradle of Humankind and Dinokeng, land ownership was a critical issue, largely as a consequence of most of the land in both project areas being in private ownership and as a result collaboration and negotiation were key features of tourism infrastructure development in both areas.

There was also different views expressed on the usefulness of a masterplan in the Cradle of Humankind as expressed by participant GP1 and LG2.

The Masterplan changed very little because it came down to personal relationships, which is fine until people left. The approach that we took in our planning was to create lots of different smaller plans to make things happen, the approach that we took to the spatial and masterplan was "what are the levels of acceptable change". The discussions with people on what they saw as "acceptable levels of change" in terms of infrastructure was fascinating, people see space differently e.g. Eskom Pylons were acceptable but putting a cellphone on the top of a hill was considered unacceptable. We were then led into discussions of what constituted acceptable levels of infrastructure …. In the Cradle, planning was very difficult because the rules were not enforceable on private land. The moneyed land owners in the area who took on the notion of "acceptable levels of change" invested in green energy and sustainable waste disposal. GP1

We used the masterplan from GDARD as a base document …... There were two different types of stakeholder groups. The one group was very happy with the Masterplan because they saw the opportunities but most of the people who

applied for business rights weren't happy with the processes because it took so long. I think the people that were unhappy because the rules affected them directly in terms of how long the applications took, of course the building costs went up, so that definitely had a financial impact on them. The Masterplan was mostly helpful as it gave the municipality a guide to work against. There were some areas where it wasn't especially helpful from an Environment and Building Controls perspective, in terms of time, like having to get comments from all the stakeholders on building developments…. The Cradle of Humankind Masterplan was taken to our Council and adopted as part of our guiding documents and then used in our planning processes and in the building and environmental controls and became a part of the IDP planning at that point in time. LG2

Interestingly, participant LG3[34] confirmed that the Cradle of Humankind continues to inform present day planning at the local government sphere and is still referenced in the DDM One Plan and Local Municipality IDP. This is likely as there was a very deliberate process of adoption of the original masterplan by the local authority at the time that it was completed. This perhaps points to the importance of institutional memory as none of the original Cradle of Humankind team are presently involved in the project. This also supports the experience of participant GP1 that "*… it came down to personal relationships, which is fine until people left."* Both personal and institutional relationships would appear to be an important part of integrated tourism infrastructure planning. Participant GP reinforces this view with this reflection *"I think that the infrastructure investment without the institutional arrangements that are multi-stakeholder and looking at the entire value chain is not going to be as effective." GP1*

Magnussen and Visser (2003) confirmed that the team responsible for the COH WHS development had drawn upon and incorporated lessons from international best practice. Some of these lessons included securing stakeholder buy-in through

[34] Key informant (LG3) interview (6 June 2021)

consultation, the development and communication of a comprehensive management plan, ensuring protection of the world heritage site while still encouraging public access, the creation of user friendly facilities; the segmentation and targeting of a tourism market. Magnussen and Visser (2003) concluded that the initial COH WHS developments, emanating from the Masterplan, had laid a solid foundation that could serve as a blueprint for the development of other WHS.

Although the masterplan itself was a useful tool, the success of the Cradle of Humankind hinged on something less tangible and more difficult to achieve, human relationships as described by participant GP1

The success of the Cradle of Humankind was due to us spending a lot of time with the "bosses of infrastructure". We didn't really understand the long term planning nature of infrastructure when we started. We didn't fully appreciate that if we wanted to create a boundary for the WHS that it would cross over a major road and we didn't understand why public works was not engaging with us. From their perspective they were the "bosses of planning" and thought that we should be engaging with their plans rather than them having to be a part of the integrated planning exercise. Once we understood this, we took one of the civil engineers up in a helicopter so that they could understand our thinking and we pulled them in as a co-developer and partner. This was a coup, firstly because we didn't know about planning and they were the experts who also knew about what kind of approvals were required. They became partners and were invested ….. As a PR exercise we also took some planners on a study tour to amazing tourism infrastructure in the North West Province, we were planning not just for the WHS but also for Provincial Reserves, but in fact those visits changed people. At first they "hated" us but over time our relationships shifted ….. A key realisation was that we had to challenge everything, we unwittingly challenged things because we didn't know how infrastructure worked which makes me wonder about how we are

training people who do infrastructure work who are still stuck on very old rules of being "bosses of planning", the professions are very specific but actually the tourism work requires multi-skilled teams who are able to negotiate and have creative solutions. GP1

There are several elements in the content above that require further reflection. Firstly, participant GP1 was not alone in expressing the view of uneven power relationships between tourism and infrastructure planners. Participant TO1, PR1 and WC1 expressed similar views. This is also the personal experience of this researcher. Secondly, an important enabler of successful implementation of integrated tourism infrastructure planning does appear to be the creation of strong relationships between tourism and infrastructure planners. The relationships are not an end in and of themselves but seem to serve the purpose of building mutual understanding and trust. As described earlier, personal relationships must be accompanied by institutional relationships. Thirdly, tourism and by extension tourism infrastructure requires multi-skilled teams.

Although the Cradle of Humankind had several detailed planning documents, the work would appear to have been supply driven as reflected by participant GP2.

There's always wisdom in hindsight that you don't have at the time. There wasn't really a single person involved in that early work who was a tourism expert. Some of us along the way learnt tourism. I think then what was achieved was phenomenal because in fact, the investment in a product or two products and the investment in roads, particularly because it was a significant amount of money, especially in the run-up to the world cup, it was a phenomenal leveraging in of private sector, investment and growth in new products …… On the shortcomings, I think we didn't do well at is at the start was looking at the entire value chain ….. There were probably very obvious things that we should have been looking at in that value chain, because we were putting something new, this was a green fields

development, it wasn't a transformation of something that already existed …. Whilst a lot was achieved, probably the potential wasn't fully achieved. So by way of example, we didn't at any point meet with farmers and say this is our short, medium and long term plan. This is what we think might be possible in terms of tourism process and you might want to coincide your planning with the potential growth of businesses that could become your consumers. So the little deli and tea places that grew out of their own momentum, but had there been slightly better planning along the whole value chain I think that there would have been slightly different results. GP2

The reflection from participant GP2 indicated that the original developments in the Cradle of Humankind didn't have a clear tourism product and market development strategy which was informed by a demand and supply analysis. The Dinokeng Masterplan however was informed by both demand and supply analysis, likely again as a consequence of the lessons learnt from the Cradle of Humankind Masterplan process. A review of more recent documents for the Cradle of Humankind and Dinokeng projects reveals that subsequent documents provided very detailed demand and supply research for both projects. The hindsight reflection of participant GP is an important one as it suggests that demand and supply analysis at the beginning of a project is critical for maximising the benefits of public sector spend but also in assisting the private sector to make informed investment decisions.

Quite frankly, there's very little tourism infrastructure planning per se. It's not as if a local authority will sit down and say we're going to plan tourism infrastructure. Gauteng Tourism Authority was one of the few institutions that actually looked at planning for tourism infrastructure as a specific element of tourism planning. So I would say that tourism or planning for tourism infrastructure is unintentionally included in other planning processes, not intentionally as this is infrastructure that serves tourism as such. Although some IDPs would for example talk about infrastructural development that are more

focused on tourism users, it's not explicit necessarily in planning processes that is part of other planning processes. PR1

This comment from participant PR1 is particularly interesting as it arose from a generic question on broader tourism infrastructure planning in South Africa rather than a specific question on tourism infrastructure planning in Gauteng. This comment is important as it confirms that tourism infrastructure is not typically deliberately planned for and that Gauteng represents an atypical example of deliberate planning for tourism infrastructure. One explanation for why this might be the case could be as a result of continued involvement of some of the original members of the Cradle of Humankind and Dinokeng teams in further tourism developments in the Province. An alternate reason for this could be the view as posited by participant WC1[35] in the quote below that there are two factors that result in Gauteng's atypical planning, the first being access to large budgets and the second being the geographic proximity to national government which in theory provides support to plans by the Gauteng Province.

I think there[36] the thinking was to go bold and big. And I still think that's very much a characteristic of Gauteng. You know, they're always announcing mega housing projects and these development corridors and there's always been this tendency to look at large scale projects which I think is indicative of a few things. The first is that I think Gauteng has always just had more budget for these 'dream big' kind of projects. And also that you've got the presence of national government to also back up these kind of visionary projects. We don't really find that here, yes there are a few IDZ kind of projects here in the Western Cape, but the approach to these projects are much more, I think not as grandiose. I'm not sure which approach is the better approach because I'm not quite sure to what extent all those big projects in Gauteng actually did make a difference. They created employment opportunities, no doubt about it just because of pure

[35] Key informant (WC1) interview (24 March 2021)
[36] A reference to the Blue IQ Projects in Gauteng

investment in infrastructure. But I think the jury is still out on whether collectively to what extent have they really boosted the economy? I don't know perhaps on a project to project basis, you can do some kind of analysis. So yes investments in Cradle probably would have been beneficial to the area but I know that a lot of planners are sort of questioning particularly around the housing development stuff, these big sort of peripheral developments on the urban edge there's a lot of contestation around whether those projects are actually the right projects and whether sometimes smaller isn't actually better, you know, instead of this bold, visionary project, sometimes just focusing on upgrading existing brownfield spaces you might actually have better outcomes? WC1

Participant GP2 confirms that there was a deliberate decision by Gauteng to provide large budgets for capital projects which included tourism infrastructure in the Cradle of Humankind and Dinokeng: "*Gauteng took a decision that it was going to reserve 20% of its budget for strategic economic infrastructure. So that's how so it was possible to make some money available for these special initiatives" GP2*

It is also worth noting that Gauteng created a special purpose vehicle and enacted legislation to enable delivery of the Blue IQ Projects which included the Cradle of Humankind and Dinokeng. *"We all started off under Blue IQ Act. And we were listed there as one of the projects and it was supposed to enable us to do creative things that you can't do in the framework of the PFMA itself." GP2.* This was likely required two decades ago, a strong preference expressed by all tourism key informants interviewed was a preference for the use of existing vehicles and legislation to enable tourism infrastructure delivery.

Municipal Capital Expenditure Frameworks and Metropolitan Municipalities Built Environment Performance Plans have not played any role in the tourism infrastructure development in Gauteng. Whilst both instruments are applicable

for tourism infrastructure development, a review of the plans of all local authorities reveals very little expression of the infrastructure needs of tourism. This situation is not peculiar to Gauteng but occurs across the country as reinforced by this reflection from participant TO2 on the challenges *"Tourism is not taken seriously if you look at the budget allocations, an LED Manager cannot take tourism on if you want it to have the multiplier effect that it can have, the staffing and the budget frameworks don't work for tourism T03"*. Capital Expenditure Frameworks at a municipal level also don't cater for tourism as their focus is on what is on what is traditionally considered as infrastructure as expressed by participant TO3.

The Capital Expenditure Frameworks at a municipal level don't really cater for tourism infrastructure planning as these are about traditional infrastructure, and tourism hasn't yet been mainstreamed enough to actually make it there. From my experience, these plans are not economically oriented and still from the paradigm of "we need to build a bridge, we need to connect this community, we need bulk infrastructure for this housing project". Tourism is actually a technical area and people don't understand it, these plans are still informed by the paradigm of what one can call conventional infrastructure. TO3

For the Cradle of Humankind and Dinokeng, only the Municipal Capital Expenditure Frameworks would be applicable as these projects fall outside a metropolitan municipality. However, this instrument has also only come into effect is the last decade, historically therefore it would not have been applicable to the Cradle of Humankind and Dinokeng projects and these developments predate the introduction of these instruments.

Gauteng has arguably made significant strides in deliberate integrated tourism infrastructure planning. This case offers some useful tools in the form of Tourism Masterplans, the Tourism Infrastructure Strategy and Plan and the Tourism and

Transport Plan. The case also signals some cautions, tourism infrastructure planning should be informed by a clear demand and supply analysis; integrated tourism infrastructure planning is not easy to achieve (*"It's just such hard work to make it work." GP1)* and even when integrated tourism infrastructure planning is achieved it is meaningless unless these plans are implemented. From the Gauteng example, implementation requires both implementable plans and strong personal and institutional relationships.

4.4 Case Study of the Victoria and Albert (V&A) Waterfront, Cape Town, South Africa

4.4.1 Introduction

The Victoria & Alfred Waterfront (V&AW) is a mixed use development which includes a working harbour, tourism, retail and residential development (Ferreira & Visser, 2007). The V&AW had a simple goal: "to make the waterfront a very special place for all Capetonians" (Birkby, 1998: 83); public access is unrestricted and free. Van Zyl (2005) describes those who initially lobbied for the development as "*idealistic dreamers*", as when it commenced in 1989 most Capetonians said "*it would never happen*". Today, this site is the most visited attraction in South Africa (De Villiers, 2016).

In the early 1980's, the harbour area was derelict and unsafe. The broad concept of the V&A Waterfront was to reconnect the City and people of Cape Town to the water and the harbour (Birkby, 1998; Van Zyl, 2005). The aim was to redevelop the historic docklands around the Victoria and Alfred Basins as a mixed-use area. The Victoria and Alfred Waterfront (Pty) Ltd was established as a wholly-owned subsidiary by Transnet Ltd in November 1988 (Victoria &Alfred Waterfront, 2022) and work on the project started in 1989 (Van Zyl, 2005). In 2006, ownership of the Waterfront changed hands when it was acquired by a consortium of London and

Dubai-based property developers (Ferreira & Visser, 2007). In 2011, the Public Investment Corporation and Growthpoint purchased the V&A Waterfront (Victoria & Alfred Waterfront, 2020). The Waterfront is an example of a very successful public-private partnership.

In 2020 the V&AW received over 24 million visitors, and had created 25 409 direct and 75 070 total jobs (Victoria and Alfred Waterfront, 2020). The V&AW is the largest tax payer in the City of Cape Town (Van Zyl, 2005) and in 2020 had a total revenue of R 335 billion (Victoria and Alfred Waterfront, 2020). Despite a stagnating national economy, the V&A Waterfront has continued to grow, contributing R36.4 billion in gross domestic product in 2020, which is 2% of the Provincial economy (Victoria & Alfred Waterfront, 2020).

Between 2017 and 2020 the Cape Town Cruise Terminal contributed cumulative income of over R2 billion. This validates the investment in the terminal despite the major short-term disruptions to the cruise industry caused by COVID-19. The V&A Waterfront fosters over 400 start-ups, enterprise development and emerging/small businesses (Victoria and Alfred Waterfront, 2020). Adjusted for inflation, the average turnover of these small businesses has grown by 6.7% annually, rising from R630 000 in 2002 to R1.2 million in 2020 (Victoria and Alfred Waterfront, 2020). During the pandemic the V&AW provided R 300 million[37] in rental relief to these small businesses.

4.4.2 How is tourism infrastructure undertaken?

The story of V&A Waterfront development features a few significant persons. Alderman Sol Kreiner, the Mayor of Cape Town, is considered to be the Champion of the Waterfront Development. In 1984 he formed the Waterfront Steering Committee and lobbied to re-establish Cape Town's links with the sea (Birkby,

[37] Key informant (PR2) interview, 13 April 2021

1998; Van Zyl, 2005). Under Kreiner's leadership, the City of Cape Town team was encouraged to travel to, and learn from, waterfront developments across the world (Birkby, 1998). Kreiner was a skilful mediator committed to working with multiple stakeholders to realise the success of the Waterfront Development (Birkby, 1998). Kreiner arranged a helicopter ride for meeting with the then Minister of Transport and the Minister of Environmental Affairs and Tourism. Enter the second central figure in the story of the V&AW, David Jack. As the City of Cape Town's Director of Planning Services, Jack presented the potential benefits of the redevelopment of the harbour development at this meeting (Birkby, 1998).

Kreiner's lobbying efforts were successful and in 1985 the Ministers of Transport Affairs and of Environmental Affairs and Tourism set up the Burggraaf Committee (Chaired by Arie Burggraaf, then SA Harbours' Chief Engineer) to investigate the potential for greater public use of South African harbour areas (Birkby, 1998; Van Zyl; 2005). In 1987, the Burggraaf Committee proposed that the historic docklands around Victoria and Alfred Basins be redeveloped as a mixed-use area focusing on retail, tourism and residential development with a working harbour at its centre. In June 1988, the South African Cabinet accepted the recommendations of the Burggraaf Committee (Van Zyl, 2005). The third vital character, Rudi Basson, was appointed as the Port of Cape Town Manager in 1988. Basson worked in the background for a year relocating Port operations to create space for the mixed use development.

In 1988 Brian Kantor (an academic and supporter of privatisation) was appointed to Chair a board overseeing the development of the historic docklands. Sol Kreiner was the City Council representative on the Board (Birkby, 1998). Re-enter David Jack, who in 1989 was appointed as the Managing Director of the V&AW (Birkby, 1998). Jack credits Burgraff and Basson's long-term view and understanding of infrastructure costs, as being key to securing the first investment of R 63 million for infrastructure (Birkby, 1998).

The original multi-skilled management team for the V&A Waterfront is often cited as one of the key success factors for this development. The Management team was committed to the project and loyal to each other (Birkby, 1998). Led by the Managing Director, David Jack, an architect and urban designer, Deputy Managing Director Derick van der Merwe and Executive Manager Finance and Administration Willem Dreyer, ably managed the capital investments and income streams to turn the Waterfront into a successful business; Duncan Cloete, the Executive Manager Operations successfully managed the care and maintenance of the Waterfront, including 24 hour security; Maureen Thomson, the Executive Manager Marketing, created a steady stream of events; Piet van Zyl, the Executive Manager Planning and Projects; and an urban planner skilfully handled complex planning negotiations with the City, secured approvals and development rights, and saw projects to fruition. Basson credits Jack's and Van Zyl's understanding of local government planning processes as being responsible for enabling the V&AW development (Birkby, 1998). On reflecting on this project, David Jack maintains that working with a skilled team of committed professionals was a key factor in this achievement. The biggest challenge, according to Jack, was obtaining buy-in for the project from the City and Transnet, and to get bulk approvals from the City, because the project looked to be too daunting a task (Birkby, 1998).

The negotiations for planning approvals were complex and took a year to achieve (Birkby, 1998). The land upon which the Waterfront was developed, was managed by the South African Transport Services; prior to 1989 this land was not subjected to conventional town planning controls, carried no zoning and no urban development rights (Birkby, 1998). A three-year grace period from 1989 allowed urban development on harbour or railway lands to be undertaken, provided that agreement for zoning for the land was reached with the local authority. This grace period allowed for the innovative local authorities to achieve objectives not previously possible under normal zoning law, and the V&AW is the result of such

innovation (Birkby, 1989). It is worth noting that although the Burggraaf Committee had made recommendations for several South African Harbours, only the historic docklands around Victoria and Alfred Basins saw such extraordinary developments to become what is now the V&AW.

The City Council delegated responsibility to the V&AW Company on an unprecedented scale (Birkby, 1998). At the time of the Waterfront development, the City created a dedicated contract planning team with the full time responsibility of managing Waterfront issues. The V&AW Company intended to manage their own public spaces, i.e. be responsible for policing, landscaping and maintenance, so no public servitudes would be registered (Birkby, 1998). These tasks are usually the responsibility of Local Government but the City Council agreed to V&AW functioning as a semi-autonomous District. Part of the V&AW lay outside the existing city boundary, but the V&AW Company wanted to avoid subdivision and fragmentation of land parcels, and all parties agreed on payment of equivalent contributions in lieu of rates. Building plans are usually processed by the city, but it was agreed that these would be administered by the V&AW Company, with the City taking responsibility only for inspecting these plans. Similarly, certain road and access lanes would be paid for by the Waterfront, rather than the City, which made an initial contribution, and the services that the V&AW Company undertook on behalf of the City qualified for agency payments.

In 1990 agreement was reached between the City Council, V&A Waterfront Company and Transnet (Birkby, 1998; Van Zyl 2005). This enabled the V&AW Company to submit a "package of plans" and to zone the area in accordance to the Legal Succession to the South African Services Act of 1989 (De Villiers, 2016). The five-step “package of plans” process is outlined in Figure 20 below. This procedure was borrowed from the experience of Canadian waterfront developments.

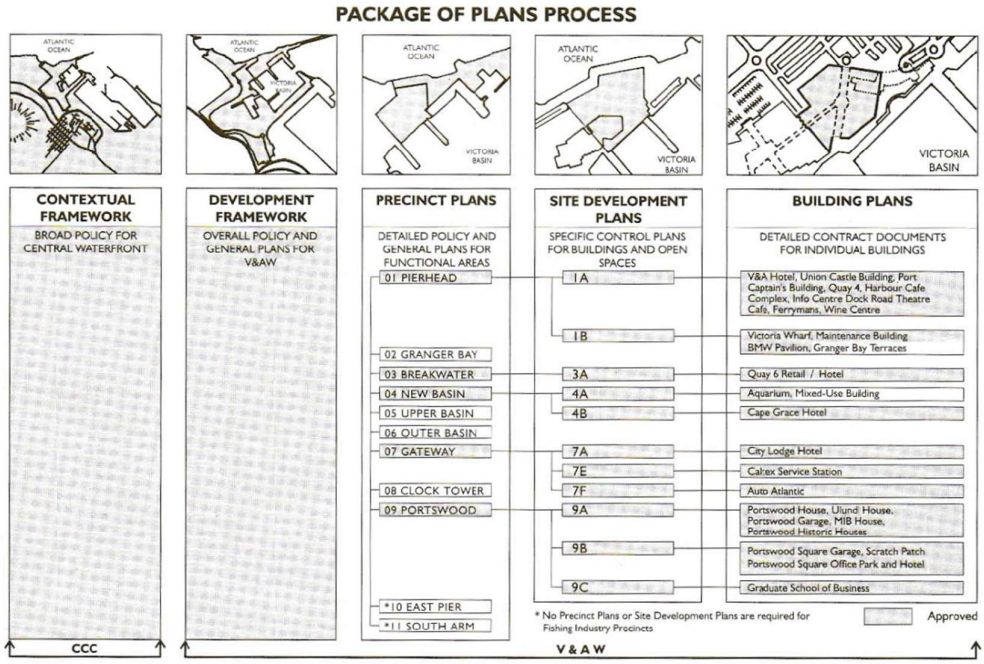


Figure 20 Package of Plans Process (Source: Birkby, 1998:16)

The contextual framework plan submitted to and approved by the City Council is outlined in Table 15 below. It effectively provided blanket development rights, thus no further applications such rights were required which enabled rapid development at the V&AW.

Table 15 Contextual Framework for V&A Waterfront Development submitted to the Cape Town City Council in 1990

Type of Use	Area
Retail	46 000m^2
Office Space	130 000m^2
Entertainment	7 000 m^2
Museums	13 0000 m^2
Residential	250 000 m^2
Fishing Industry	98 000 m^2
Total	604 000 m^2

(Source: V&A Waterfront 2013a as cited in De Villiers, 2016 Table 1.1)

The V&A Waterfront project was launched in 1988/89 at a very challenging period in South Africa's history (Van Zyl, 2005). The Apartheid Government regime was ending, but the transition to the first democratically elected Government in 1994 was still five years away. South Africa had still not emerged from political isolation and was in an economic recession. No Government or Municipal subsidies were available to the V&A Waterfront project. Additionally, no financial institution was willing to finance the initial project (Van Zyl, 2005). The preliminary funding of R 205 million was provided by the State-owned South African Transport Services (which would later become Transnet Ltd); without this support the project would not have been realised. An important founding principle of the V&AW was that it had to be commercially viable from the outset and had to be sustainable on the basis of the domestic support and acceptance of the project (Van Zyl, 2005). Table 16 below summarises the budgets for the initial phases of the V&AW development.

Table 16 Summary of expenditure on initial phases of the V&AW development (Source: reproduced from De Villiers, 2016 Table 1.3)

Project Phase	Completion Date	Budget (ZAR million)
1	December 1990	65
2	October 1992	140
3	May 1997	528
4	December 2000	95
5	December 2002	312
V&AW Marina Residential Sector One	December 2004	282
6	December 2006	570
V&AW Marina Residential Sector Two	March 2007	1008
Total		3000

Figure 21 provides a visual representation of the expenditure on developments.



Figure 21 Comparative aerial views of the V&AW Residential and Marina Basin in the 1980s and 2012 (Source V&A Waterfront, 2012 as cited in De Villiers, 2016: Figure 1.1.)

The V&AW Company acts as both the developer of the project and also as property manager. Tenants' leases range from monthly to 99-year periods. The V&AW Company therefore has to ensure continued overall growth in the total investment as shareholders are interested in a return on their capital investment. Historically, the shareholders' return on investment has been above original expectations (Van Zyl; 2005). This trend should continue for as long as the South African economy and the tourism industry grow. The V&AW is a compelling investment as a result of (Van Zyl; 2005):

1. The unique planning framework and flexible development rights allowing development to adjust to changing market demand.
2. The V&AW is run as a business and all funding, including capital expenditure, has been raised on a commercial basis.
3. The consistent application of the original vision which allows for investment certainty
4. The protection of the overall environment and the retention of the working harbour components.
5. The retention of the property as a single unit, under the control of one owner, has prevented potential conflict that could have arisen from multiple ownership

6. The diversity of uses within the one property e.g. residential, retail, offices, entertainment and tourism.
7. The market-driven capital investment strategy within the guidelines of the vision and overall development plan.
8. The high standards of security and cleanliness employed in the V&AW.
9. The strong level of support from Capetonians for the V&A Waterfront.
10. The world-renowned success of the V&A Waterfront development and its attraction to domestic and international visitors.

Successful commercial property ventures require successful tenants. The V&AW has had a very low failure rates for businesses (Birkby, 1998). The following are some of the critical success factors from the perspectives of V&A Waterfront tenants' (Van Zyl, 2005) 1) The V&AW has given preference to owner-operators, as opposed to group or franchised operations; 2) Careful research by the V&AW has ensured a mix of tenants that provide complementary as well as competitive operations; 3) The strong international brand recognition of the V&AW is a major benefit to tenants; 4) The V&AW attracts over 24 million repeat visits per annum, offering high foot traffic for tenants. Extended trading hours of businesses and visitor attractions appeal to visitors and allow tenants such as restaurants to trade beyond the traditional meal times and 5) The V&AW is safe and secure; operators and tenants do not need to invest in individual security measures.

The rapid development of the Waterfront led to many construction jobs; by 1992 this development had generated 2 200 man-years of work (Birkby, 1998). There are several key success factors for the V&A Waterfront project. First, the V&AW learnt from pioneering waterfront developments around the world, but was developed according to its own unique attributes (Van Zyl, 2005). Second, the V&AW was developed using a special purpose vehicle (i.e. V&AW Company) by dedicated management and staff who were loyal to the project's development and success (Birkby; 1998). Third, the V&AW Company has a policy of selected

tendering, pre-qualifying selected tenderers, permitting the company to appoint people who could deliver (Birkby; 1998). This policy allowed for rapid development and has resulted in very few contractor claims and no long drawn-out disputes. The V&AW Company' policy is to appoint consultants who have been retained since 1989, and project teams drawn from over 100 different firms have been engaged in various building projects. This system has created invaluable mutual understanding, trust and loyalty between the client and consultants (Birkby; 1998). Fourth, the V&AW had a sustainable planning and development vision aligned with the unique selling features of the project and the location (Van Zyl, 2005). Fifth, anchoring projects with critical mass informed the development and investment focus in order to establish a high impact mixed-use development (Van Zyl, 2005). Sixth, multi-disciplinary project teams and specialists created a holistic design and development process supported by committed shareholders who understood the nature of capital infrastructure investment (Van Zyl, 2005). The Waterfront designs went through an extensive review process with all technical teams (e.g. landscape, traffic, engineering) having the opportunity to debate and provide input resulting in integration (Birkby; 1998:23). Seventh, planning support obtained from the local authority was a critical factor in the establishment of a flexible urban planning framework for initial and ongoing development (Van Zyl, 2005). Eighth, environmental and cultural sensitivity and retaining the authenticity of the historic dock area and working harbour has ensured a "real" rather than 'theme park' experience for visitors (Van Zyl, 2005). There are almost thirty national monuments or listed buildings at the Waterfront (Birkby, 1998). Ninth, planned rather than random growth by concentrating on the initial development and expanding this in an integrated and sustainable manner has been ensured (Van Zyl, 2005). Tenth, the project must be market-driven in order to be commercially viable and economically sustainable (Birkby, 1998; Van Zyl, 2005). Eleventh, ensuring a rigorous tenant selection and sustained programme of events and promotions, to retain and sustain market share and growth through repeat visitation (Van Zyl, 2005). Twelfth, maintaining a focus on

locals who visit year-round, and on tourists who go to places that locals frequent (Van Zyl, 2005). Thirteenth, convenient access, adequate public parking and excellent public safety and security is assured (Birkby, 1998; Van Zyl, 2005). Fourteenth, observing high standards of maintenance and cleanliness (Birkby, 1998; Van Zyl, 2005).

The V&AW is constantly being repositioned so that it is open and welcoming. Over time the narrative has shifted from being an Urban Waterfront Development to becoming a Neighbourhood, viewing the Waterfront as an extension of the City of Cape Town[38]. A diverse commercial portfolio has assisted the Waterfront to survive the COVID 19 pandemic. In the last decade the focus has been on sustainable development, green construction and sustainable designs. The V&A Waterfront has invested over R22-million in energy-saving projects. Despite an increased number of tenants, a 23% saving on electricity consumption has been achieved due to this investment (Victoria and Alfred, 2020).

Thirty-three years ago the V&AW was a derelict and outdated harbour and loss-making asset for the landowner (Van Zyl, 2005). Today it is a profitable property development which showcases South Africa's natural beauty, talented entrepreneurs, innovative businesses and vibrant arts, culture and retail (V&A Waterfront, 2020). In keeping with its founding mission in 1988, the V&A is indeed "a very special place for all Capetonians" which contributes to its iconic appeal to domestic and international tourists alike.

4.4.3 Analysis

The researcher was struck by two elements of the V&A Waterfront case study. Firstly, the significance of individuals in the narrative of the V&A Waterfront development. One reason for this could be that the V&A Waterfront

[38] Key informant (PR2) interview, 13 April 2021

development was narrated and documented by the original team. There seems to be a strong tradition of knowledge management in the V&A Waterfront which continues today *"Waterfront documents the process undertaken for each project and look at the key learnings that came from the project. This is then stored centrally accessible for everyone on the intranet, a shared drive that includes information that can be made public." PR2.* Another reason for this could just be that the original team personally put so much of themselves into the project that the legacy of this contribution is recognised in the narrative, *"The biggest challenge according to David Jack was to get buy-in and getting bulk approvals, because it looked like such a daunting project. To get buy-in from the City and Transnet was a challenging task. The original Executive team really believed in the project and even took out bonds on their homes to fund the initial development." PR2*

Secondly, the consistency with which subsequent developments at the V&A Waterfront mirror the original plan. One reason posited for this could be the vision of the original project and the quality of original plans. An alternate reason is that bulk approvals were obtained at the beginning of the project and therefore any subsequent developments were made much easier and cheaper forgoing the need to lengthy individual development approvals. Both explanations are evidenced in the reflections below from participants PR1, WC1 and PR2.

Bear in mind, this is 1993 so international tourism would have been on the radar but it wouldn't have been seen as the major group, but tourism was certainly on the radar. Hence the bringing the local office of SA Tourism into the planning committee as well …. What was revolutionary about the Waterfront planning at that stage was this notion of a package of plans. They knew that because it was a large long-term project that the plan needed to be adaptable for changes in the market. So instead of drawing a master plan with fixed land use allocations and percentages for various land uses, they did a broad brush plan and then said we

will do detailed precinct planning within that and we will have this basket of land use rights available that we can then use. One of the principles was also retaining heritage infrastructure and converting or adapting that for tourism use or for other uses mainly retail precincts and they learned that from other waterfront development and then maintaining the working harbour element was also an important part. So again, so you have a piece of the tourism precinct that has multiple use, so you have the fishing boats, you still have the dry dock there, you have now big corporate offices that are located there, which makes that infrastructure for all kinds of uses and purposes. PR1

Where spatial planning is concerned the Waterfront is always designed that regardless of wherever you are there are always passages where you can see through to the ocean, this continues today as well as the original vision and purpose for building the Waterfront. The Waterfront begun with a plan/blueprint for the area and this is still followed today. Bulk permissions for development were obtained from the City of Cape Town, and there is a reapplication for permissions …. Although some of the details on the development plan change, the original plan still informs development. The blueprint allows for knowledge of where the development is going and also for calculated decision making. In the last decade a focus has been on sustainable development, aim for five star and higher in the green building council grading. PR2

For local municipalities in terms of SPLUMA they certainly responsible for precinct planning and I would say that when you do your precinct plans, then definitely you should consider tourism. But having said that, it's only really the metros that do precinct planning, very few municipalities actually do precinct planning in general. If you want more V&A Waterfronts, then that's what you need. V&A Waterfront was a package of plans, it's grown and evolved, but it's been quite a consistent process of sticking to the master plan or framework but consistently driving precinct planning and development. WC1

The V&A Waterfront development used the concepts but not the detail of both Spatial Plan and Masterplan. Linking these concepts to development approvals served as a way to "fix" these plans. The researcher is not aware of any other tourism project in South Africa in which this strategy has been utilised. It may be the case that this is a common strategy for commercial development, which applies to the V&A Waterfront. An alternate explanation could be that this is possible in smaller scale developments, the V&A Waterfront is approximately 604 000 m^2 of development. A third explanation could be that the use of Spatial/ Masterplans are not a feature of tourism infrastructure planning in the Western Cape as evidenced in the reflections of participant WC1.

Up until the end of last year, the Western Cape didn't even have an infrastructure Masterplan, so never-mind a tourism plan even a provincial infrastructure plan. During COVID they realized that this was obviously a big problem because of challenges we had at the port etc. so they then realized, well, we need to pull together an infrastructure plan. So from a tourism point of view we now are looking at how do we make sense of that so in terms of our ten year strategy in the Western Cape, we certainly identified tourism infrastructure as one of the five core focus areas of the strategy but the strategy doesn't really go into a lot of detail as to how tourism infrastructure coordination will actually happens. So this year what we hope to do is, a bit like what we did for Gauteng is look at what is happening in the infrastructure planning space, what's happening in the tourism planning space and then how do we marry this into a more coherent picture. So at the moment, I think it's a lot of tourism infrastructure planning is definitely ad hoc, I'm not sure what's happening at a national level, I'm sure NDT is looking at it. But I think it's really is probably a challenge across the board just because I think as a tourism industry we don't really often engage with the infrastructure teams. WC1

Another interesting facet of the V&A Waterfront development is that the original blueprint was flexible enough to accommodate changes over time.

The Waterfront has also changed its narrative where it used to be an Urban Waterfront Development, we now call ourselves a neighbourhood, the Waterfront as an extension of the City of Cape Town. One of the newest developments is Battery Park, this forms a link between the City and the Waterfront and was very well received by Capetonians. There is a good and healthy mix of people who use the space, the skateboard park for example is used equally by professional skateboarders and children on scooters …. These facilities are free to all who want to use this area, people from the Homestead shelter have been employed to assist people to set up little picnic space with chairs and umbrellas in the Park, while we are waiting for our trees to grow. PR2

The original vision of connecting the V&A Waterfront to the people of Cape Town continues to underly new developments at the property allowing for the continued infrastructure development that is responsive to the needs of the people of Cape Town.

The V&A Waterfront was initially developed with a commercial imperative. It therefore stands to reason that the product and market development strategy was informed by a demand and supply analysis. This is supported by the contribution of R36.4 billion in gross domestic product in 2020 of the V&A Waterfront, which is 2% of the Provincial economy (Victoria & Alfred Waterfront, 2020). The reflection of participant PR2 provides additional insight into how the diverse commercial portfolio has fared during the COVID-19 pandemic.

Diverse commercial portfolio has assisted the Waterfront to survive the pandemic. Support has been provided to small businesses; and business owners have appreciated closer discussions with the management team - there have been

very open communication during this period. COVID has also enabled conversations with the broader tourism community. Re-opening is increasing slowly. Businesses with more affordable options tend to do better. Visitors tend to spend a little more on experiences rather than retail. Interestingly some high end stores like Louis Vuitton have done very well (spend by wealthy Capetonians that probably normally travel internationally to do their high-end purchases). PR2

Although the V&A Waterfront and SANParks are similar in that they independently manage self-contained area, the Waterfront has very close working relationships with local and provincial government. As is to be expected, SANParks as national government entity has a closer working relationship with national government than the V&A Waterfront does. Participant PR2 expands on the relationship between the V&A Waterfront and various levels of government.

Waterfront has a very good relationship with the City. It operates like a municipality on its own and is the biggest rate payer in the Western Cape. The Waterfront tries to use the resources available around the Waterfront e.g. silo district uses water from the Atlantic Ocean to cool the buildings instead of air conditioning and the property has its own waste removal facilities; just to name a few. The Development team tries to keep the City involved in the development processes through regular meetings also involving the relevant departments, so overall a very good relationship with the City. Work a lot with the Provincial Department of Tourism and WESGRO from a tourism perspective. Very little relationship with National Government team but it would be nice to have more involvement with National. Had some relationship around Operation Phakisa and Blue Cape. There has also been funding received from the Department of Labour for Makers Landing for the redevelopment of a cold storage dating from the 1920s into a food community. PR2

Controlled access and safety are further benefits of being able to manage the V&A Waterfront as a self-contained space. The infrastructure development at the V&A Waterfront was always envisaged to serve the people of Cape Town and it appears to have achieved this particular aim with over 24 million visitors in 2020 (Victoria and Alfred Waterfront, 2020). Participant PR2 further reflects on the success factors for the V&A Waterfront.

The success factors of the Waterfront is that is accessible to everyone and is free. The Waterfront has an inspirational aspect to it, a lot of the attractions do, for a lot of people who want to be out of their own reality and escape. A monthly visitor tracking study is done with a hundred intercept interviews. A lot of people say that the main reason for visit is escapism and just to watch people. We also started a few running routes through the Waterfront to encourage locals to frequent the property and to position it as part of their neighbourhood. A success factor is that it is open and welcoming and people feel safe. PR2

The V&A Waterfront is a successful public private sector development. The case study provides some support for the concepts of Spatial Plans and Master Plans as a tools as the V&A Waterfront was developed from a blueprint which still informs development to this day. Municipal Capital Expenditure Frameworks and Metropolitan Municipalities Built Environment Performance Plans have not played any role in the V&A Waterfront development. This is likely as a consequence of the V&A Waterfront being a commercial development and therefore not requiring expression in local government long term infrastructure planning. These instruments have also only come into effect is the last decade, historically therefore they would not have been applicable to the V&A Waterfront as its development predates the introduction of these instruments. As a commercial development it provides the strongest support for the use of tourism product and market development strategy.

4.5 A comparison of the case studies

Although the case studies presented in this chapter are at different scales and spheres of government, some common themes emerge. All three case studies provide evidence for the reciprocal relationship between tourism and infrastructure development. They provide further support for public sector investment in tourism and infrastructure as a pre-requisite for private sector investment. The case studies validate the use of Public Private Partnerships as a strategy to support tourism growth and development.

Spatial development frameworks are employed to good effect in SANParks through zonation in the individual Park Management Plans. This is as a result of conservation, rather than tourism planning but tourism developments benefit from the use of spatial planning. Spatial planning was not initially a tool used in tourism planning in Cradle of Humankind in Gauteng but later become an important tool. Spatial planning was also a used in as a tool in the Dinokeng planning, possibly as a result of the conservation planning used for the Big 5 Game Reserve, similarly to SANParks. The V&A Waterfront development used the concept of a spatial plan but without "fixing" the development zones to allow for flexibility in future developments. On a balance the case studies provide support for Spatial Planning as a useful planning tool for integrated tourism infrastructure planning.

Tourism product and market development strategy as employed in good effect in SANParks through it Product Development Strategy and in the V&A Waterfront which is a commercial development. The benefit of hindsight in the Cradle of Humankind and Dinokeng indicates that a tourism product and market development strategy at the inception of both projects could have maximised the potential of public sector spend and tourism infrastructure developments. There is therefore strong support from the case studies for the use of tourism product

and market development strategies, informed by supply and demand analysis, in integrated tourism infrastructure planning.

Municipal Capital Expenditure Frameworks and Metropolitan Municipalities Built Environment Performance Plans have had no role to play in all three cases studies for differing reasons. These tools are not applicable to SANParks as all National Parks fall outside the boundaries of local authorities. These tools are also not applicable to the V&A Waterfront which is commercial development. Further these instruments have also only come into effect is the last decade, historically therefore they would not have been applicable to the V&A Waterfront, Cradle of Humankind and Dinokeng as these developments predate the introduction of these instruments. Whilst both instruments are applicable for tourism infrastructure development in Gauteng, a review of the plans of all local authorities reveals very little expression of the infrastructure needs of tourism. This does not discount the use of the instruments for tourism infrastructure planning but rather supports the need for mechanisms/models to integrate tourism infrastructure planning.

In both SANParks and the V&A Waterfront the concept of Tourism Infrastructure Masterplans are utilised. In SANParks, each National Park has a ten-year Management Plan which includes capital development plans. In the V&A Waterfront, a package of plans/blueprint guided infrastructure development. Gauteng has utilised Tourism Infrastructure Masterplans to the best effect. The case studies provide support for the use of Tourism Infrastructure Masterplans for integrated tourism infrastructure planning.

An important caveat is that the planning tools must be supported by strong personal and institutional relationships. Without exception, the case studies highlight that visionary leadership supported by strategic and operational leadership is critical for tourism growth and development. Tourism, and by

extension tourism infrastructure requires multidisciplinary teams. In South Africa, unlocking capital investment in existing and new tourism infrastructure is required. Interventions are required to increase operating budgets to ensure that tourism infrastructure is adequately managed and maintained.

Tourism is used as strategy for economic growth in developing countries. However, most of these countries also face challenges in funding tourism development with a reliance on government funds or foreign investment. Jenkins (2015) suggests that even where tourism is a dominant economic sector, it should not be considered as a stand-alone sector in government policy and planning because tourism is affected by many other sector policies. He further asserts that governments in developing countries have a critical role to play in creating an enabling environment for private sector investments in tourism.

4.6 Conclusion

This chapter has outlined a multiple case study for South Africa. The links between the specific research objectives and the case studies in this chapter are summarised in Table 17 below.

Table 17 Connecting the specific research objectives to the case studies

Specific Research Objective
i. Undertake a systematic empirical understanding of the current processes used for tourism infrastructure public sector planning in South Africa to identify the integration challenges.
Connection to the case studies
The South African case study provides a detailed account of tourism infrastructure planning at National (SANParks), Provincial (Gauteng) and Local (Cradle of Humankind World Heritage Site, Dinokeng and the V&A Waterfront) spheres of government. The SANParks case study is an exemplar of tourism infrastructure planning but also highlights critical funding challenges which notably impact on infrastructure maintenance. This case study also highlights integration challenges with managing infrastructure outside the national parks.

The Gauteng case study highlights the success of strategic infrastructure investment for tourism in the Cradle of Humankind and Dinokeng projects. This case study also highlights the current challenges in integrating tourism and infrastructure planning. The V&A Waterfront case study highlights the opportunity of securing private sector funding in tourism infrastructure through innovative partnerships with the public sector e.g. allowing the private sector to manage their own public spaces, a role usually assigned to the public sector. **Significance of the case data for the research findings** The case studies provide real life data on the challenges and opportunities for tourism infrastructure planning in the public sector. This data is incorporated into the research finding's chapter.
Specific Research Objective **ii.** Determine the key elements that are required to develop an integrated model for tourism infrastructure planning undertaken by the public sector in South Africa. iii. Develop and test a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa. **Connection to the case studies** Despite South Africa not having a national tourism spatial plan, all of the case studies utilised spatial planning as a tool to develop tourism. Clustered tourism development in South Africa is clearly intended and Masterplans have been effectively used in South Africa. The need to unlock capital investment in existing and new tourism infrastructure in South Africa further highlights the importance of a tourism infrastructure investment strategy and plan. The South African case study highlights the urgent need to increase operating budgets for maintenance of tourism infrastructure. The case for Private Partnerships and public sector investment enabling private sector investment is made in all 3 case studies. **Significance of the case studies data for the research findings** The case studies provide empirical evidence for the key elements of the model for integrated tourism infrastructure planning. The case studies demonstrate the practical application of the models key elements i.e. a National Tourism Spatial Plan; Regional Tourism Masterplans; Tourism Infrastructure Investment Strategy and Plan.

(Source: Researcher's own construction)

The next chapter provides the research findings through a detailed description of the data analysis and the researcher's interpretation of the data in relation to the study. The data from the case studies are incorporated into the research results

Chapter 5

5 Research Results

5.1 Introduction

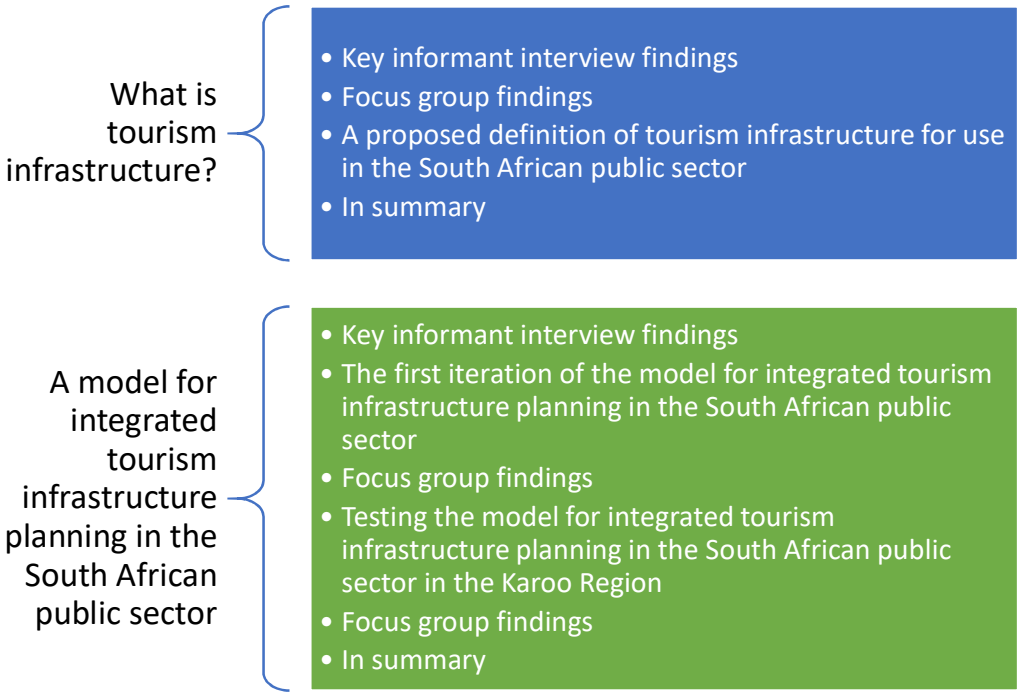
The previous chapter presented a multiple case study for South Africa. This chapter presents and discusses the results from the research study, inclusive of data derived from the case studies. To reiterate, the aim of the study was to develop and test a model for integrated tourism infrastructure planning undertaken by the South African public sector. The research question explored in this study was: "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the South African public sector?"

The research findings presented related to the following specific research objectives:

i. Undertake a systematic empirical understanding of the current processes used for tourism infrastructure public sector planning in South Africa to identify the integration challenges.
ii. Determine the key elements that are required to develop an integrated model for tourism infrastructure planning to be undertaken by the public sector in South Africa.
iii. Develop and test a model for integrated tourism infrastructure planning to be undertaken by the public sector in South Africa.

This section is organised in two sections as outlined in Figure 22.

Figure 22 Outline of the research findings section (Source: Researcher's own construction)



5.2 What is tourism infrastructure?

Tourism infrastructure is one of the key concepts in this research study. As detailed in Section 2.2.2, there is no common or consistent definition of tourism infrastructure in the literature. This research study investigated a definition of tourism infrastructure for use in the South African public sector. The findings from the key informant interviews and focus groups in the research study are reported below. Figure 23, a Word Cloud which provides a visual picture of inputs received from key informant interviews is contained below for ease of readability. The Word Cloud will be explained in Section 5.2.1.



Figure 23: Word Cloud of elements of key informant interview participants' definitions of tourism infrastructure

5.2.1 Key informant interview findings

All key informants were asked to complete the following sentence "Tourism infrastructure is …." The Word Cloud in Figure 23 provides a visual picture of the elements contained in the individual key informant interview participants' definitions of tourism infrastructure. The font size of the words correlate with the number of times that word was mentioned; the larger the word, the more often it was mentioned in individual definitions.

The detailed definitions of tourism infrastructure provided in 26 key informant interviews are arranged into five central organising themes as outlined below.

5.2.1.1 Purpose of tourism infrastructure

The definitions described tourism infrastructure as physical assets or facilities, either private or public, required for tourism to function in support of socio-economic development. Common in these definitions was that tourism is a "feeling and experience" for both the tourist and the people who benefit from tourism, which is linked by infrastructure. In other words, infrastructure is included in the memories that people take back from their tourism experience. All the elements of tourism infrastructure were included in these definitions: natural (e.g. beaches, mountains and lakes); man-made (roads, accommodation, nature reserves and bulk services like water and sanitation); and experiential (e.g. game drive, cable cars).

5.2.1.2 State of tourism infrastructure

The definitions described perspectives on the current state of tourism infrastructure in South Africa but also highlighted the importance of this infrastructure. Tourism infrastructure was described as being fragmented,

generally inadequate, entirely lacking or insufficient investment from the public sector with some investment from the private sector. Low public sector investment in tourism was attributed to the lack of integrated planning and silo sector-specific thinking. These definitions also stressed the need for more public/private partnerships in the development of tourism infrastructure which served both the communities and tourists who use this infrastructure. They generally lamented the "lost golden opportunity" of viewing "tourism infrastructure as the engine for tourism development". Also emphasised was that well-designed infrastructure enables the seamless movement of tourists, and incentivises further travel and tourism spend. Accessibility, intermodal transport infrastructure and linkages between elements of tourism infrastructure e.g. accommodation and transport, were emphasised in these definitions.

5.2.1.3 Tourism infrastructure as a system

This theme of definitions described tourism infrastructure as a system. Tourism infrastructure was described as a "*symbiotic system that is very inter-dependent*" and includes the "*bricks and mortar*" i.e. both natural and built environments, the people who work in the sector, and the people (tourists) who are served by the sector. The "experience" or "feeling" that a tourist took home was considered critical. The idea that the system is greater than the sum of its parts is encapsulated in these definitions of tourism infrastructure. Relationships between the public and private sectors are also seen as important elements of tourism infrastructure in this set of definitions.

5.2.1.4 Tourism infrastructure as an opportunity

Tourism infrastructure was described as an economic opportunity to unlock the tourism potential of "*our living and evolving cultural and historical landscapes*" TO4. Integral in these definitions was the need to integrate multiple perspectives

from policy makers, funders, citizens and stakeholders to use tourism opportunities to address the infrastructure challenges in South Africa. The emphasis was to build consensus between planners, communities and tourists on how to use infrastructure to create a tourism experience and use the opportunities to link different experiences, including cross border experiences, through infrastructure. The value of tourism infrastructure can only be understood through its social and economic contributions.

5.2.1.5 Tourism infrastructure as viewed by tourism planners

The definitions provide a technical description of tourism infrastructure and are best encapsulated by the verbatim definitions provided below:

Tourism infrastructure is often only seen as the super-structure i.e. supply side of tourism = attractions, heritage sites, hotels, resources and infrastructure but in fact tourism infrastructure should encompass both super and base structure. Richie and Crouch Model widely used defines base infrastructure as the support structure - the relationship between the base and superstructure is not well defined or articulated. There is no specific definition of infrastructure that helps tourism planners to properly integrate these elements. A common set of criteria for evaluation and assessment is needed but difficult as we don't have a common set of definitions for the sector which creates challenges for all areas of tourism development e.g. tourism policy, funding mechanisms. TO1

Tourism infrastructure is the 5 A's : Access (roads, airports, etc.), Accommodation (hotels, lodges, B&Bs, holiday homes, etc.), Amenities (Malls, clinics/hospitals, service stations, telecommunication infrastructure, etc.), Attractions/Activities (national parks, museums, golf courses, schools, universities, conference facilities, etc.), Awareness (access to information through technology, signage - "visibility" of a destination is very important both to the people in a destination and to tourists as a destination is only sustainable if people know that it exists. TO6

These definitions include descriptions of tourism infrastructure as tourism supply (e.g. hotels), experiences that people can choose (e.g. zip lining) and indispensable supporting infrastructure like electricity, roads, water and functioning local government. These definitions also encompass the difference between:

1. Supporting and enabling infrastructure, with a distinction between hard infrastructure (e.g. ports, roads, airports, signage) and soft infrastructure ("the resources, the skills, the ecosystem that maintains and delivers that hard infrastructure");
2. Core tourism infrastructure (e.g. an attraction like God's Window or Sun City);
3. Public sector tourism infrastructure (driven by community beneficiation and the utilisation of community owned or tribal authority or government owned assets) and private sector tourism infrastructure (driven by opportunity and market/demand)

Another important element contained in this set of definitions is that tourism infrastructure development must be viewed within the broader economic development i.e. investment in tourism infrastructure must be made only if a return on investment in this tourism infrastructure can be realised.

5.2.2 Focus group findings

As stated previously, participants in the first two focus groups were presented with both the Word Cloud in Figure 23 as well as a definition of tourism infrastructure as contained in Figure 24.

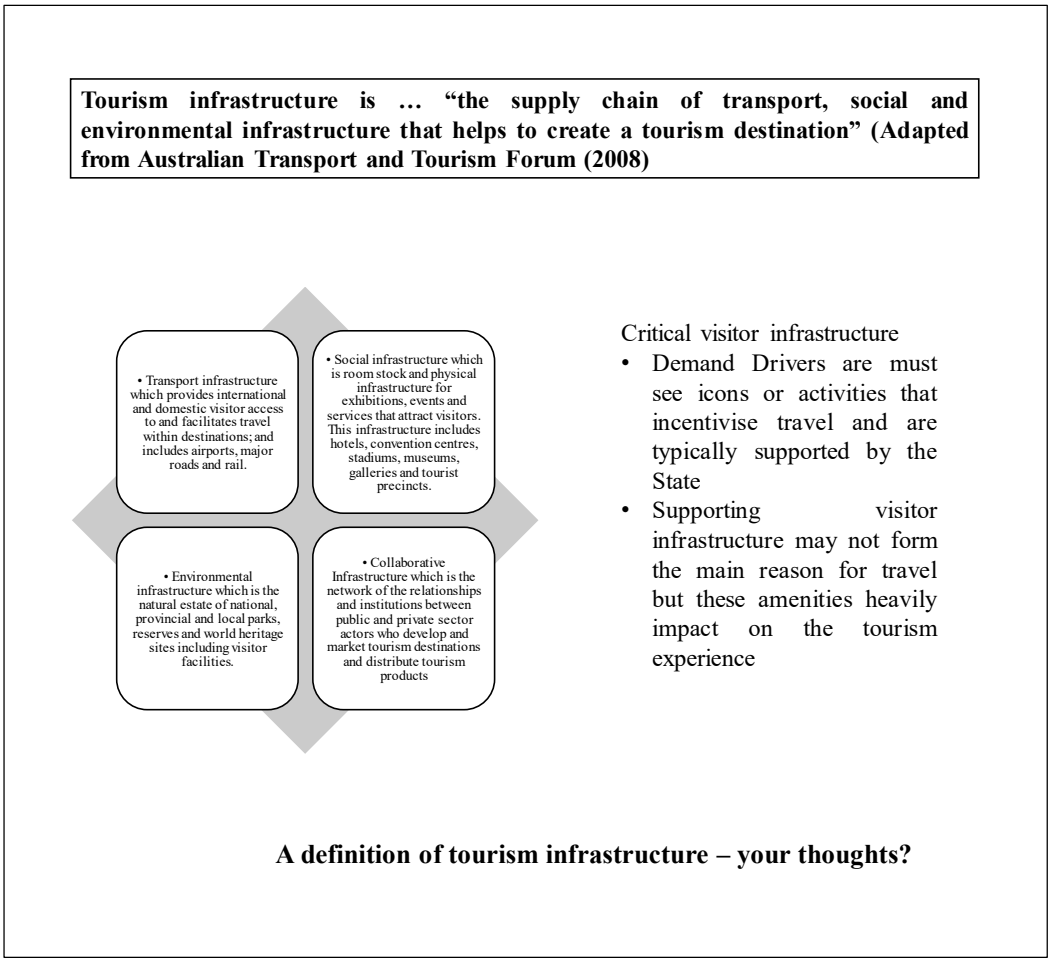


Figure 24 : Definition of tourism infrastructure presented to Focus Group Participants for their inputs

Focus group participants were invited to provide their views to the definition of tourism infrastructure. The major inputs are discussed below.

Participant TO5 raised concerns that a definition of tourism infrastructure was problematic as it seemed to view *"Tourism as a bubble that can exist on its own" TO5*. The substance of this concern was that tourism by itself is often not sufficient justification for infrastructure development e.g. the development of an airport or the creation of a road cannot be "paid" for solely through income generated from tourism as an economic activity, therefore the investment in infrastructure must

be contextualised within broader economic development. Participant TO5 indicated that this input was not necessarily an objection to creating a definition of tourism infrastructure but rather a reminder of the importance of providing a preamble to the definition which unpacked the role of tourism as part of a broader economic value chain. Participant T05 further clarified that infrastructure had multiple purposes, one of which included tourism. Inputs from participant PR1 reflected a similar perspective of shared users of infrastructure *"Transport infrastructure is also utilised by others, why aren't other civic infrastructure e.g. electricity, water, sanitation included here and why is transport highlighted?" PR1*

Participant PW1 and TO3 highlighted that the term "Social Infrastructure" had a specific connotation in the South African context i.e. this refers to infrastructure that provides social services e.g. courts, schools and hospitals. The use of this term in the definition of tourism infrastructure for South Africa could therefore easily create confusion and these participants suggested that another term should rather be utilised. Participant LG1 suggested that it would be better to utilise terms that already existed in current policy or legislation as these would already be known to public sector official, however participant LG1 also conceded that if new terms were introduced that public sector officials would adapt to these.

The definition of "Collaborative Infrastructure" resonated well, with participant GP1 describing the term as "beautiful" and participant PR1 agreeing that "this is really quite neat". Participant PR2 suggested the inclusion of socio-economic development under the definition of "Collaborative Infrastructure" further explaining that tourism is an enabler of economic growth in the area where it takes place. Participant CG1 expanded that the definition of collaborative infrastructure was useful as it included the various partnerships between different spheres of government, communities and the private sector. Participate CG1 expressed that the partnership element made this particularly relevant to small towns.

Particularly in small towns, tourism infrastructure links very importantly with the economic contributions to an area. The social fabric, economic fabric, linkages both from a transport infrastructure and land use are components which enable tourism. Many small towns have ageing infrastructure, the collaborative infrastructure is quite weak, capital investments are limited; although the model denotes four separate categories of infrastructure they don't function independently but are interdependent. CG1

Participants GP1, PR1, SA1 and LG1 expressed the view that tourism infrastructure was not just about "hard" infrastructure but should encompass soft infrastructure elements such as safety and security, information infrastructure (road signage, interpretative signage, visitor information offices), knowledge infrastructure (GIS layers, project information, stakeholder databases), broadband and a tourism brand.

Participant TO3 suggested that "Supporting Infrastructure" should be elevated in the definition of tourism infrastructure in part to assist infrastructure planners to see the value of this type of infrastructure for tourism.

Part of the practical challenge that has been experienced, particularly in the different public sector entities, which can and must provide infrastructure that supports tourism, seem not to understand and consider their role in supporting tourism. There would be value therefore in centralising the definition of supporting infrastructure as this is a very key input to the overall supply chain of tourism infrastructure. T03

With regards to "Environmental Infrastructure", participant PR1 suggested that this perhaps could be changed to "Heritage Infrastructure" as the definition encompassed elements of both natural and cultural heritage. Participant LG1 suggested the use of "Scenic Landscapes" instead of "Environmental Infrastructure" as the former is a familiar term in South Africa whereas the latter

is not. There was general consensus from focus group participants that the definition encompassed all elements of tourism infrastructure but that further refinements were required. This is eloquently expressed by participant TO1.

In its nature and process, the tourism infrastructure supply chain is very complex. What is central to this model that allows for the operation of this model? If you look at components as a supply chain of things and makes a business case for e.g. for supportive infrastructure what is central to this supply chain, how do you interface critical infrastructure and inform how infrastructure actually happens There are intrinsic, extrinsic and institutional elements and all of these are encompassed in the definition. Everything that is contained in the definition belongs there but can be further refined. TO1

5.2.2.1 A proposed definition of tourism infrastructure for use in the South African public sector

The inputs by participants in the first two focus groups provided in the section above were considered by the researcher and where applicable incorporated into the refined definition as outlined in Figure 25. Revisions to the initial definition of tourism infrastructure as contained in Figure 24 above are reflected in grey text in Figure 25 below.

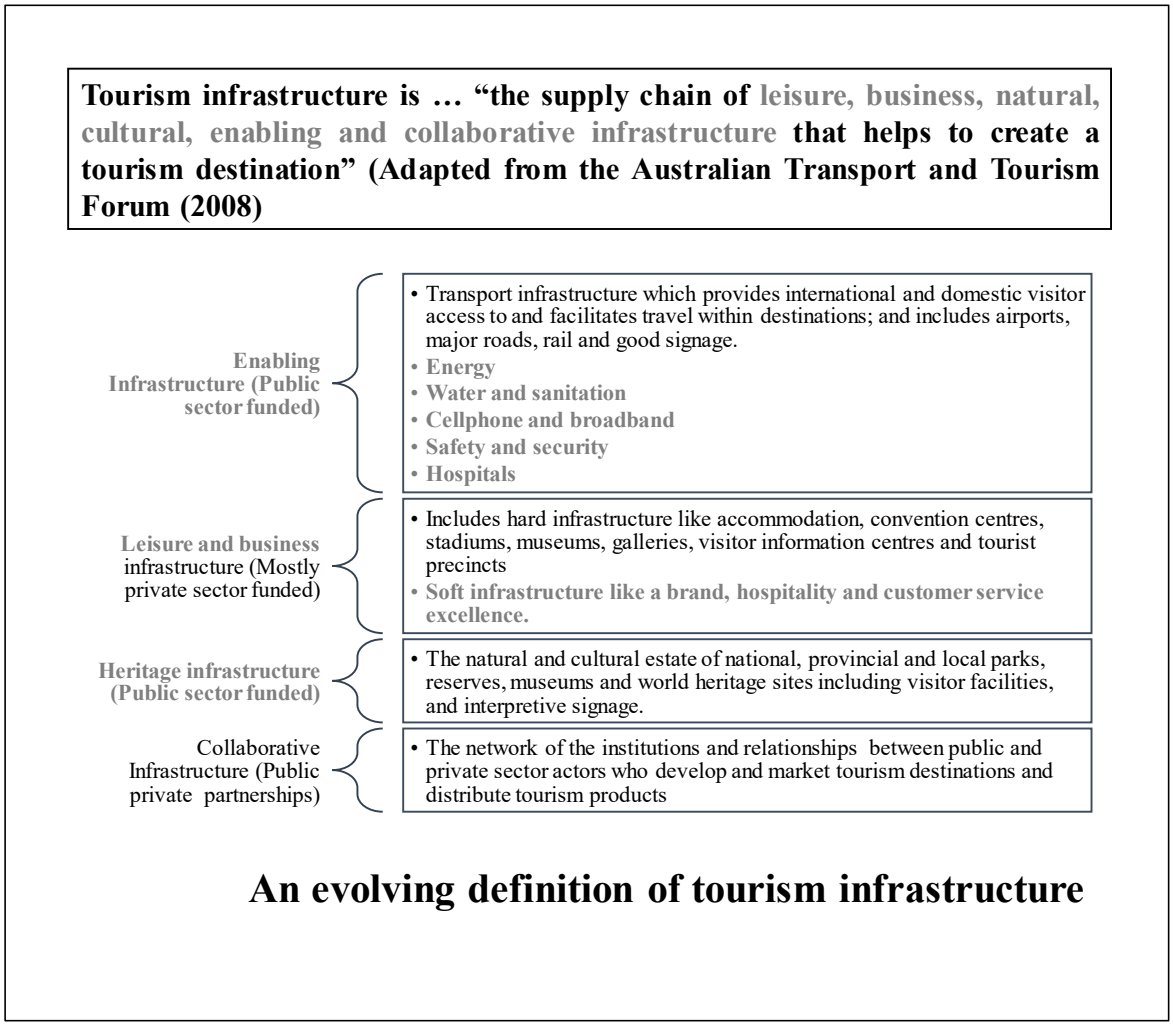


Figure 25 Definition of tourism infrastructure containing inputs of Focus Group Participants inputs (grey text)

Further contributions to this definition of tourism infrastructure were invited from participants in the third focus group, these contributions are outlined below.

There was agreement that whilst the definition of tourism infrastructure was much clearer, the interface with other support infrastructure was not yet that clear, e.g. different planning horizons and decision-making timeframes for road infrastructure vs tourism infrastructure. Participant T05 suggested that it might to useful to reflect this issue in the discussion of the model. Participant TO5 further highlighted two elements unrelated to the definition of tourism

infrastructure and possibly outside the scope of this study that required further exploration. The first related to the importance of referencing in spatial layers and maps services important for tourists for example information on petrol stations and ATMs. The second element was the need to further explore mechanisms that enabled the planners responsible for supporting infrastructure to consider the needs of key economic sectors. Participant WC1 reflected that the definition of "Heritage Infrastructure" did not encompass contemporary culture like art centres or theatres and suggested the use do the term "Natural and Cultural infrastructure" instead of "Heritage Infrastructure".

Further consideration was given to the inputs received during the research process, Figure 26 below contains a proposed definition of tourism infrastructure for use in the South African public sector.

Tourism is defined as "the activities of persons traveling to and staying in places outside their usual environment for not more than one (consecutive) year for leisure, business and other purposes" (UNWTO 2016).

It would therefore stand to reason that tourism infrastructure firstly enables tourism and secondly is the physical place or space that tourists enjoy whilst at a tourism destination. Tourism infrastructure is therefore "the supply chain of leisure, business, natural, cultural, enabling and collaborative infrastructure that helps to create a tourism destination" (Adapted from the Australian Transport and Tourism Forum (2008). The components of this supply chain are:

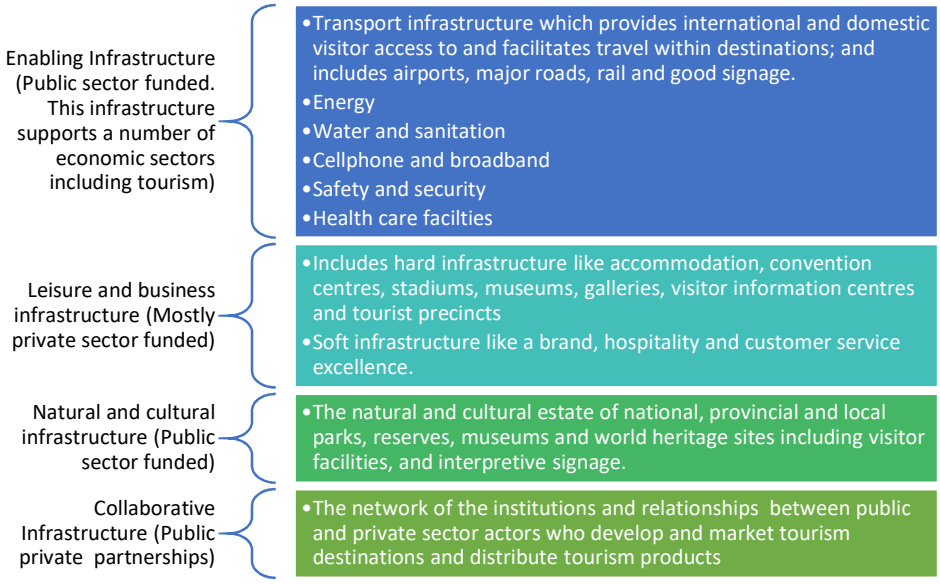


Figure 26: A proposed definition of tourism infrastructure for use in the South African Public Sector

5.2.3 In summary

As indicated by research participants, the study provides a helpful definition of tourism infrastructure for use by the South African public sector. However, this definition can be further refined. In particular, the distinction in the roles and

responsibilities of the different South African public sector entities that can and must support infrastructure for the tourism sector can be further explored.

5.3 A model for integrated tourism infrastructure planning in the South African public sector

As stated previously, the aim of the study was to develop and test a model for integrated tourism infrastructure planning undertaken by the South African public sector. The research question explored in this study was 'What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the South African public sector?" The findings from the key informant interviews and focus groups in the research study, integrated with evidence from the case studies, are reported below.

5.3.1 Key informant interview findings

The inputs provided through the 26 key informant interviews are arranged into four central organising themes. The Mind Map in Figure 27 below provides a visual summary of these central themes which describe key informant interview participants' thoughts on elements for a model for integrated tourism infrastructure planning in the South African public sector.

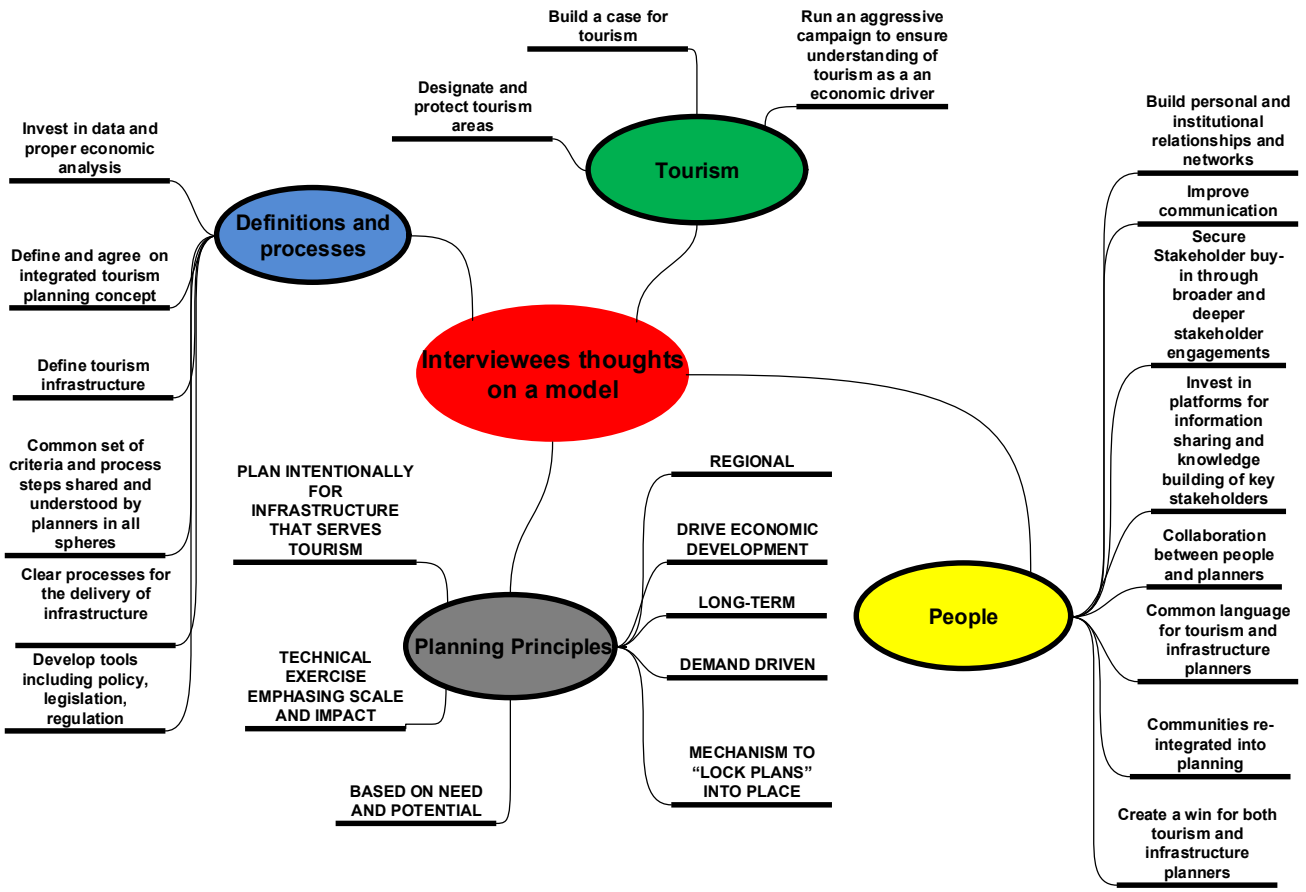


Figure 27 Mind map of key informant interviewee's thoughts on a model for integrated tourism infrastructure planning in the South African public sector (Source: Researchers own construction)

Outlined below are the details of central organising themes that emanated from the key informant interviews.

5.3.1.1 Tourism as an important and valued economic sector

The name of this theme provides its description. The following quote from a participant encapsulates this theme *"Tourism needs to make a big noise, you are way too quiet and we can't hear you but you're doing very important things"DB1*. This quote comes from an individual interviewee but interviewees generally expressed a need for public sector tourism officials to make an explicit case about the value and importance of the tourism sector and to communicate this with citizens, the public and the private sectors. Implicit in this theme was the view that tourism broadly and tourism infrastructure specifically would receive more support if the benefits of the sector were widely understood.

Participants TO5, PR1 and WC1 expressed a nuanced perspective on this theme. This perspective reflected that whilst tourism was an important economic sector, it could not serve as a standalone sector and therefore the case for public sector spend on tourism infrastructure should be made only in instances where this was supported by or provided support to other sectors as well.

The case studies provide support for this theme. In South Africa, where a clear case has been made for tourism as a key economic driver, investment has been made in infrastructure to support tourism. The case studies also support the nuanced perspective on this theme by reinforcing that investment in tourism infrastructure is best informed by detailed demand and supply analysis.

5.3.1.2 Planning principles

This theme describes participants' suggestions that the model should outline a set of planning principles. Many of these inputs came directly from tourism interviewees and reflect their considerable expertise in integrated tourism infrastructure planning as these principles, in many ways, reflect how tourism development occurs. It has taken roughly 20 years for the Midlands Meander in KwaZulu-Natal and the Cradle of Humankind in Gauteng to develop from an idea/concept into thriving tourism destinations. Integrated tourism infrastructure planning should sustain regional economic development and therefore be based on strong tourism demand analysis that deliberately plans for investment in infrastructure for tourism. Because infrastructure investment is expensive and takes a long time to put in place, it is essential for some mechanism to "lock in/fix" technical planning for infrastructure over successive political terms. Planned maintenance of infrastructure was also raised as being important. The quote below from a tourism planner stands out as an ideal for integrated tourism infrastructure planning.

I think that there could perhaps be more explicit attention to how infrastructure may also serve tourism, so multiple uses of infrastructure of which tourism may be one. Especially in a context where public funds are limited and private funds are also limited, where infrastructure can serve multiple markets that is just efficiency and good spending of money. PR1

The case studies provide evidence for the reciprocal relationship between tourism and infrastructure development. They provide further support for the use of tourism as a driver for economic development and diversification of the economy.

5.3.1.3 Definitions and Processes

This theme describes the need for the model to provide a clear set of definitions and processes. Two elements viewed as requiring clear definitions were "integrated planning" and "tourism infrastructure". Aligned to the model providing definitions, was also the need for the model to outline clear processes for the delivery of infrastructure and to develop tools for policy, legislation and regulation. The quote below from a tourism planner summarises this theme.

The first step is to have a definition, then a common set of criteria to be shared with all planning practitioners at different levels of government that plan for public infrastructure. Clear processes for delivery of infrastructure will assist to improve integrated tourism infrastructure planning. TO1

Participant GP1 had a very visceral response to the current system of planning, as a seasoned public sector official, participant GP1 reflects the experience of government bureaucracy as an impediment to service delivery and a black box for citizens and the private sector.

*I looked at this diagram (*of the system of planning – Figure 8*) and it made me feel sick. It just occurred to me that actually all of this is such bureaucratic red tape, which makes no sense to anybody in the real world. GP1*

Participant PR1 reflects a similar frustration in understanding government processes and terminology. This point emphasises the need for the public sector to communicate more clearly to facilitate engagements with the private sector and citizens.

*(*A challenge for tourism infrastructure planning*) I think also it has to do with if I may, that opacity of some of the terminology that's is used in government, you may very well have seen a document, but you wouldn't say that it's a tourism capital expenditure framework. Unless you work from the principle that tourism has to be integrated into broader plans for destination or for full locality development, unless you go with that*

perspective, you're not going to look at what it is in IDP, etcetera. So I am not surprised that if you're not working in tourism development or tourism planning specifically, you will most likely not know about it. The process and how they hang together are just so difficult to understand if you're not in the system. So the terms that are everyday terminology for anyone who works in government and you will know that over time how have the terms that are used for documents that effectively do the same thing or planning processes have changed. It's difficult to keep track of that, but also to understand how the planning, budgeting, reporting etc. processes work in government and I struggle to comprehend it because I don't work with it every day. But I think the vast majority don't understand it, I think somebody's working in an LTO for example might not, and you would expect them to know. They would possibly know if there is funding from the municipal government, for the entity, they would know broadly about the funding cycles, but they might not know about the other planning documents and any other planning processes that pertain to tourism where they could potentially influence or participate. PR1

The inputs from all three participants suggest that that the definitions and processes outlined in the model for integrated tourism infrastructure planning will need to be very carefully considered, reviewed and revised beyond the lifespan of this study. This view is supported by participant TR1 who reflected that after a decade their planning is no closer to a providing a common definition of "integrated planning".

5.3.1.4 People

This theme encapsulates both the people who are served by infrastructure delivery and people who deliver infrastructure. The quote below from an infrastructure planner best expresses this theme.

The biggest challenge for integrated tourism infrastructure planning is stakeholder buy-in and support for an intervention - on the non-technical side this is a

key risk. Especially in a democracy like South Africa which has brought along its own set of limitations, particularly in an infrastructure space, because of the multitude of stakeholder groups that one has for any particular intervention be it private or public sector based. This is not just a South African challenge; interest groups are a big international issue. Almost any technical risk can be properly mitigated through deploying the correct expertise. DB2

Although the theme of "people" was anticipated, the extent and significance of this being raised by participants was a surprise. This theme was consistently raised by both tourism (*"Infrastructure is awesome but people are awesomer"* GP1) and infrastructure planners (*"Infrastructure is easy, people are complex"* DB2) alike. The issues raised were twofold. The first issue was the importance of infrastructure serving the needs of people. In order to do this, all stakeholders, particularly the communities, would have to be meaningfully engaged in public sector planning in order to secure their buy-in. Although participants, without exception, agreed that this was a sound principle, they grappled with how to realise this principle in practice as evidenced by the reflection of participant PR1.

Community involvement in the planning of infrastructure is important. If the principle is that local users are a use group then obviously the involvement in contributing to defining what that means and what the needs are is important. Whereas the principal is sound, the realization of that is way more difficult than what first meets the eye. And that's what I'm grappling with at the moment is this notion of yes, tourism planning must be inclusive and you could say that the IDP process is the democratic process that is meant to be inclusive, but if you look at how people actually get involved in that or get involved in committees that are making decisions about tourism infrastructure, for example, Ward Committees where are the residents within that? …. So I think operationalizing local involvement in tourism decision-making is far more complex than what it appears to be in the academic literature. I think it's particularly complex in the South African context where on the surface, there are mechanisms and

processes for participatory decision-making yet people are not using those mechanisms, therefore we have to ask why not and what is the alternative then? We can't just say that we have an inclusive participatory IDP process or we have a Ward Committee for tourism infrastructure planning or infrastructure planning more generally it's a wicked problem. PR1

The second issue raised regarded the needs of people who delivered infrastructure i.e. public sector officials. Participants expressed the need for learning opportunities and platforms for public sector officials to share experiences. Collaboration/integration in the public sector is not an easy task and participants also pointed out that public sector performance management systems do not incentivise or reward collaboration.

People are a critical ingredient not just in the planning process but also in the defining the purpose of infrastructure as further reflected by participant GP1.

I always thought that infrastructure was value laden but infrastructure is actually value free and our view of infrastructure changes. Infrastructure people think that the whole world revolves around infrastructure and that infrastructure is fantastic. If people who planned for infrastructure thought about function and purposes as opposed to structure, a shift in approach would make a difference – it depends on your perspective and values. GP1

Tourism and infrastructure planners both have different but important perspectives but in the end a guiding principle for integrated tourism infrastructure planning should be the function of infrastructure in relation to the people that the infrastructure is intended to serve.

Capacity development or training of public sector officials was considered important. Given the multi-sectoral nature of tourism, public sector officials often have academic or professional qualifications in fields other than tourism. None of the key informants

interviewed were formally trained in tourism but have gathered a range of practical knowledge and experience in tourism. It is the observation that although there is a large cohort of mainly junior officials who have formal training in tourism, these officials have not been prepared for the public sector workplace as tourism development is not a focus of the tertiary curricula. Skills development for new entrants into the public sector and ongoing professional development of current public sector officials was a significant matter raised. Participant TO5 suggested that a structured programme of training be developed.

Hive off a commission – perhaps people from CSIR maybe give them a task to also start training and collecting information and maybe at some point when you need it the information will be there. Develop the tools and train on the use of these tools for analysis, walk people through an assist people to use these tools. A single minded purpose bring in the academics and geographers, universities and use them for this purpose. TO5

Without exception, the case studies highlight that visionary leadership supported by strategic and operational leadership is critical for tourism growth and development. Tourism, and by extension tourism infrastructure requires multidisciplinary teams.

5.3.1.5 Key informant interview participants' views on the researchers' proposed elements for the model on integrated tourism infrastructure planning

As indicated in Chapter 4, once participants had expressed their own perspectives on the semi-structured questions in the key informant interviews, the researcher shared Figure 28[39] below, briefly explained the figure and invited inputs on the current system of planning and the proposed elements for a model.

[39] Figure 28 is the same as Figure 8 which was previously shared in Chapter 3 and is reproduced here for ease of reference

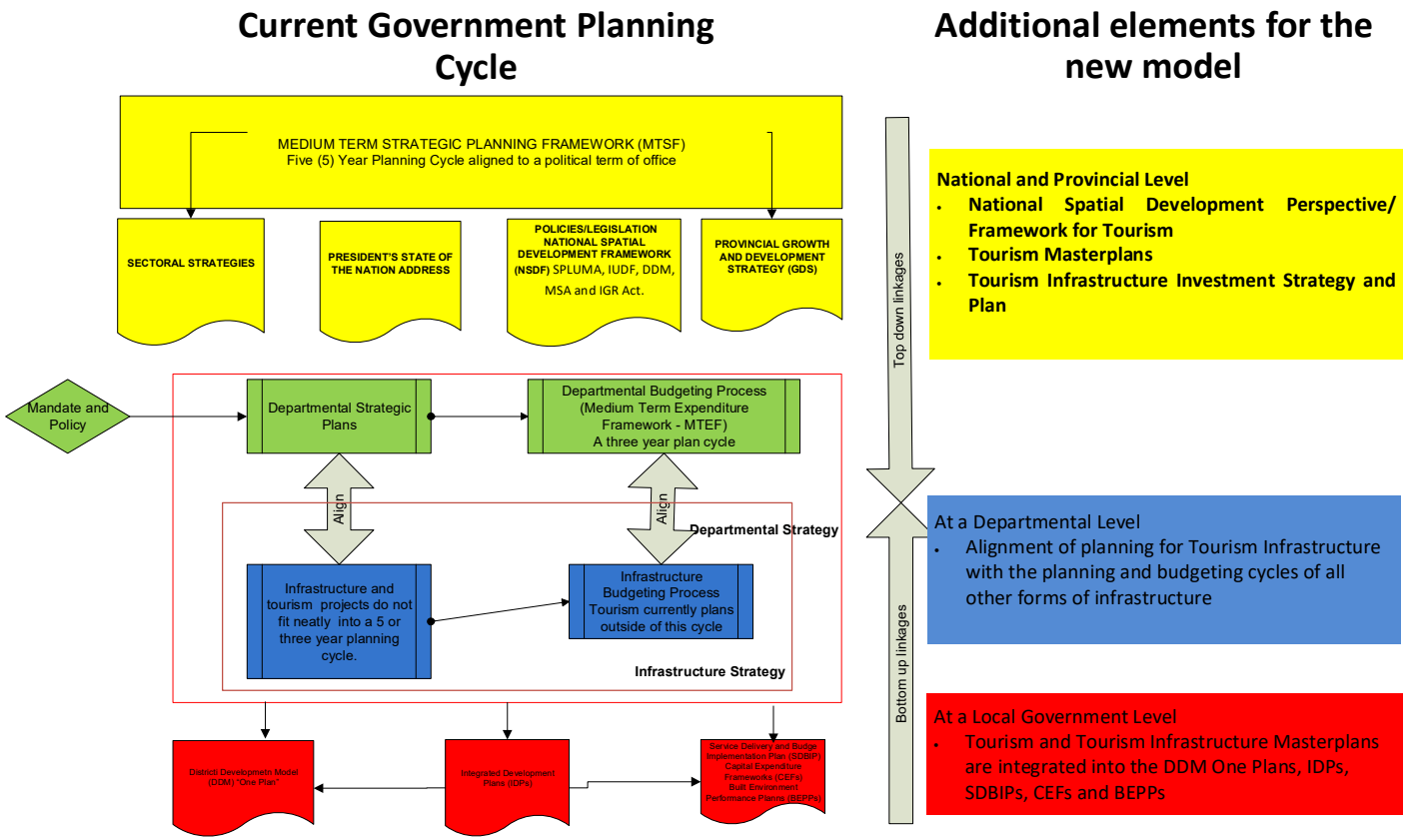


Figure 28 A graphic representation of the current status of the tourism and infrastructure planning system for Gauteng, South Africa (adapted from the South African Public Sector Infrastructure Planning Cycle from Republic of South Africa – National Treasury 2006) (Figure on the left hand side) Diagram shared with key informant interviewees expressing the researcher's perspective on the current government planning cycle and suggested elements for a new model (blocks on the right hand side)

The researcher suggested the incorporation of the following three elements, as defined below, into a model for integrated tourism planning:

1. **National Tourism Spatial Development Framework** which would spatially map current and future tourism development in order to designate and protect tourism zones.
2. **Regional Tourism Masterplans** which would outline the strategy and planned initiatives for regional tourism economic development. Importantly, tourism regions are not defined by geographic boundaries.
3. **Tourism Infrastructure Investment Strategy and Plan** which would outline the long-term capital investment plan and projects for tourism infrastructure.
4. However a fourth element, that of **People** has emerged through the research as being significant for the effectiveness of model. This element is supported by the findings from both the key informant interviews (Section 5.1.3.4) and focus groups (Section 5.3.3.5). As this element has already been discussed in detail in the preceding sections, it will not be further discussed in this section but will be reflected on again in Chapter 6.

Outlined below is a summary of the views expressed by the interview participants, integrated with evidence from the case studies, on the three elements suggested by the researcher for incorporation into the model for integrated tourism infrastructure planning.

5.3.1.5.1 National Tourism Spatial Development Framework

Overall, there was consensus and enthusiasm for the inclusion of this element in a model for integrated tourism infrastructure planning. However, before the details of the consensus are explained, it is worth noting that there was a single interviewee who was not enthusiastic about spatial planning. In the interviewee's own words:

It is not possible to reverse Apartheid spatial planning. We are where we are right now because of spatial planning. When we create universities, we should also create towns, we need to have an anchor for any type of development, spatial planning is not a goal in itself. DB1

The interviewee went on to explain that economic planning should be the goal of all planning. Interestingly this view was widely supported by participants with participant TO6 suggesting that every Department should have an economic mandate and that tourism and the Local Economic Development (LED) should be linked. Although participant DB1 was not enthusiastic about spatial planning, the usefulness of spatial planning as a tool was not discarded.

The country does have an SDF, the impact is yet to be understood; it is important to be able to see development on a map to avoid perpetuating the current situation where only certain Provinces become economically active in the mainstream, as opposed to other Provinces where households merely get by on a daily basis. If development does not happen within the context of an SDF, there will be differentiated infrastructure development taking place. DB1

Participant TO5 was sceptical that a single National Tourism Spatial plan was feasible due to the number of tourism offerings in South Africa but supported the idea of spatial plans.

Not sure that you can have a single tourism spatial plan as there are many different offerings in one place. But a spatial plans would be useful, in order to see the potential e.g. mountains and bodies of water – this has got to be at a local level to start mapping – need to map out layers in a systematic way and then have some concepts. TO5

Back to the details of consensus on the usefulness of a National Tourism Spatial Framework. The value of a spatial plan for tourism at a National scale was its potential for ensuring alignment at all three levels of government and the

prioritisation of tourism. As one interviewee put it *"make it easier for tourism to speak the spatial language of, for example, water, energy and road planners who are able to present their plans spatially." PW1* This was further evidenced by reflections below from participant TO3.

A tourism spatial plan would absolutely help tourism because tourism in its nature the value chain I don't even think we can quantify it. If there was a spatial plan for the Country and then you had it by Province, things could be prioritised because you would be able prioritise because your see your longer term vision and understand what needs to happen to operationalise that spatial plan. If you don't know what is happening in a spatial context how do you then put the other support in space e.g. training, infrastructure and skills needed to support the realisation of the spatial plan. TO3

The prominence of spatial planning in the South African context and the requirement for municipal Spatial Development Frameworks (SDF's) would perhaps explain the enthusiasm for this particular suggested element. Several participants referred to the Spatial Planning and Land Use Act (SPLUMA) and expressed the view that as planners are obligated to comply with SPLUMA, a National Tourism Spatial Development Framework would position tourism to take advantage of the provisions in this Act. As participant CG1 described this:

Sometimes people need to be shown, not just told, what can be done. If you had a national tourism spatial plan you could design it in such a way that you could map where the metros, small towns and intermediate cities are and you could superimpose that spatial plan with national corridors for transport for so that you know where the main linkages and accessibility to tourism nodes [are] and you can also superimpose the economic activities that are there and the opportunities that bring about tourism which allows municipalities to designate land uses. CG1

In addition to expressing enthusiasm for a National Tourism Spatial Development Perspective, interviewees also offered advice and caution. *"The idea of a tourism*

spatial plan is great but for this to be effective two conditions must be met: planning should be long term in nature and should be aligned with regional economic planning" TO1. Interviewees also pointed out that a tourism spatial plan would assist tourism infrastructure planning only if tourism was properly integrated into the national spatial perspective rather than a stand-alone document. The importance of people was also emphasised as evidenced by the quotes from two interviewees.

"A tourism spatial plan would improve tourism infrastructure planning if we (state, communities, citizens, consumers), were all deliberate in our approach, we could bring in tourism elements. The people who are the inhabitants of this space must be at the centre of planning." T04

"Spatial planning capacity is lacking especially in a community as this can cost money but spatial planning is essential and if this is not done properly then tourism cannot work."PR3

Although none of the case studies commenced with a national tourism spatial plan, they all employed spatial planning as a tool for tourism development. Spatial development frameworks were employed to good effect in SANParks through zonation in the individual Park Management Plans. Spatial planning was not initially a tool used in tourism planning in Cradle of Humankind in Gauteng but later become an important tool. Spatial planning was also a used in as a tool in the Dinokeng planning. The V&A Waterfront development used the concept of a spatial plan but without "fixing" the development zones to allow for flexibility in future developments. On a balance the case studies provide support for spatial planning as a useful planning tool for integrated tourism infrastructure planning.

5.3.1.5.2 Regional Tourism Masterplans

Most participants had never experienced or participated in Regional Tourism Masterplanning, but tourism and regional economic planners were the most excited about this element. This may well be explained by an understanding from

these interviewees that both tourism and economic development do not adhere to administrative boundaries and that the current government system of planning, which is aligned to administrative boundaries, hampers both tourism and economic growth. Participant TO3 provides an apt description

Regional planning for tourism makes sense because this perennial issue of municipalities dealing with administrative boundaries in their approach to tourism has in fact been raised and is seemingly an unsolvable problem. What I like about this model is the bold thing, if you like, of in fact saying that planning should not happen at the local level. If the regions are planned as tourism regions they will then be marketed in that way. When you plan for these as regions you are not hampered by the limited resources of a single municipality. What I also like about a regional approach is that it would then automatically unlock funding, because then it is the province or national entity that then goes to look for funding to develop whole regions, not just to develop a small area. TO3

Interviewees also offered advice and caution on Masterplans expressing that while Masterplans have been a very useful base for the integration of planning, they also present a number of challenges. These challenges include resourcing requirements, stakeholder buy-in to the implementation process and the lack of collective ownership of the elements of the Masterplan. Participant TO1 explained that even though a Masterplan is a two year process, it takes time to get traction and *"there can always be improvements on broader, deeper and wider stakeholder engagements"*. This same interviewee expressed that Masterplans are great tools for evidence based planning but can be quite a cumbersome process to implement, requiring time and a dedicated team. Additionally it is difficult to define the Masterplan area: "*In Gauteng a regional Masterplan might cover multiple individual areas, whereas in the Northern Cape it may be one large consolidated area*".

Participant WC1 expressed scepticism on whether a Masterplan could work in all areas of the country, citing the human and financial resources as a limitation for this tool's applicability to all parts of South Africa. The importance of people was also emphasised as evidenced by the quote from participant TO4 *"Any Masterplan must be defined by people on the ground, plans must take their cue from the lived experience of people. Sustainability is key, work with what exists in people's experience."TO4*

In both SANParks and the V&A Waterfront the concept of Tourism Infrastructure Masterplans are utilised. In SANParks, each National Park has a ten-year Management Plan which includes capital development plans. In the V&A Waterfront, a package of plans/blueprint guided infrastructure development. Gauteng has utilised Tourism Infrastructure Masterplans to the best effect. The case studies provide support for the use of Tourism Infrastructure Masterplans for integrated tourism infrastructure planning.

5.3.1.5.3 Tourism Infrastructure Investment Strategy and Plan

Interviewees were unanimous that a tourism infrastructure investment strategy and plan that set out the resourcing requirements and costing for tourism infrastructure would be invaluable in informing broader planning but also gaining stakeholder buy-in and support. The following quote from an interviewee best articulates the value of this element for integrated tourism infrastructure planning.

A tourism infrastructure investment Masterplan that defines the key sets of infrastructure needed to move tourism forward I would definitely say could help because one of our weaknesses as tourism is that we speak in generic terms and even where we've had other Departments in this particular case, in fact, being willing to assist us, we have struggled often to articulate our specific needs so that we can gain support from them. It would help not just the direct Departments that

are implicated, but the whole of government. I do feel sometimes that we are not always able to articulate things in such a way that people who are not in our space can understand. It would really assist them and us to have specifics about what is it that we need when we say infrastructure, but what exactly and supporting what? I would imagine that a Masterplan would also outline some principles that would help provinces and municipalities in deciding whether for example whether they need convention centres. So it would really help to strengthen our case as tourism, but also just practicalize the kind of support that tourism needs. TO3

A tourism infrastructure investment strategy and plan was also viewed as a useful resource to attract investors. Investors were seen as government departments, Development Funding Institutions and the private sector. This quote from an interview describes this use.

A tourism infrastructure investment Masterplan is a useful tool. The most important impediment to these is the constraint of funding and skills for implementation. The State can't do this alone, we need to get the private sector involved, we need to create a conducive sector to enable private sector involvement. We must be deliberate in our budgeting framework to include the elements of the infrastructure Masterplan. The Masterplan should include an assignment of funding and appropriations in order to make this plan happen. DB1

Interestingly, the tourism infrastructure investment strategy and plan invoked inputs from several interviewees on the District Development One Plan Process and how a tourism infrastructure investment strategy and plan could best inform the priorities of a One Plan. The quote below from participant DB1 highlights this value proposition.

The "One Plan" issue is a structural issue; the most well-funded local authorities are the Local Municipalities who receive revenue and the equitable share. The "One Plan" is not about a District as an entity but about the District as

a system, what are the socio-economic stresses of a district? It should be "One Plan, One Budget", this is an aggregation of all the plans that people have, it does not belong to the District but a plan that shows the work of all Government Departments – plot everything that is being done into the system and create a tollgate of infrastructure investment if we are using infrastructure as a driver for economic development. Who is in a position to co-ordinate and drive this "One Plan"? This should be the role of district development agencies but they are not yet mandated to perform this role. This would begin to enhance the role of the District itself. The total value of what is being spent by the State will become clearer through the "One Plan", unemployment, quality of life, genii coefficient and service delivery should be used as criteria for the evaluation of the success of the One Plan. The IDP process then becomes the cornerstone of evaluating the progress of the One Plan against the set criteria, at the moment the IDP is just dreams and aspirations rather than the reality, the One Plan should be the reality and helps us to achieve our goals. DB1

All three case studies demonstrate that the existence of a clear tourism infrastructure strategy and plan makes investment in tourism infrastructure possible. In all instances, public sector investment in tourism and infrastructure has preceded and enabled private sector investment. For South Africa unlocking capital investment in existing and new tourism infrastructure is required. In South Africa, in particular, interventions are required to increase operating budgets to ensure that tourism infrastructure is adequately managed and maintained. The case studies provide support for Public Private Partnerships as a strategy to support tourism growth and development.

5.3.1.5.4 The current system of planning

Participants were unanimous that integrated planning is a challenge. The three quotes outlined below demonstrate different elements of this challenge.

Participant ID1 reflects on the challenges of the IDP planning process highlighting the lack of capacity at local government to develop the IDP and therefore create evidence based prioritisation of projects. This reflection is also supported by the literature on spatial planning in South Africa (Harrison and Todes, 2013; Todes, Karam, Klug & Malaza, 2010).

The IDP processes are very flawed, what we found is that the municipalities would hire a service provider to complete the IDP and the consultant would often cut and paste from one municipality's IDP into another one's IDP. Fundamentally the spatial planning around a lot of the IDPs is fundamentally flawed as it is based on bringing people in from the outside who don't work on factual information. The reason that we work with Municipalities is because they own the assets. The lack of co-operative governance is also one of the biggest stumbling blocks for spatial planning. There needs to be someone who has the teeth to intervene in processes where co-operative governance does not work. A model being developed would have to look at how red tape is being unblocked – sometimes red tape is being utilised to prevent projects from coming to fruition. There are many different interests and own agendas in tourism. Tourism is a complex sector. ID1

Participant TO6 reflected on the fragmented nature of planning highlighting the challenges of securing collaboration between the three spheres of government.

Currently, tourism follows, rather than guiding, hard infrastructure development. Often as tourism planners, or planners in general, we plan for local government and then assume that they we can simply handover to them in the end. This is not sustainable, role clarification is required, national government should set priorities and act as an integrator but implementation should take place at a local government level. However, National Government is seen to hold the "purse" and so local government sits back waiting for a handout when in fact National should be asking what contribution local government will make instead – reversal of roles. Power is held by the perceived weak - Municipalities still hold the key, "still turn the taps" and can and do exercise their power sometimes to prevent

development from occurring because they were not involved in planning. The planning question from National to local needs to be reframed to What are you doing and how do we assist? TO6

Participant PR3 highlighted the challenge of a lack of appropriate skills in the public sector which yields poor problem solving and a lack of integration.

It's just shocking that the spatial planners very seldom understand economics. They study geography and a bit of engineering, demographics and spatial planning but they don't understand the logic of a relatively free society and they don't understand how to operationalise that freedom and how to encourage people to make things up as they go along, improvise, spot new opportunities. PR3

The three case studies all highlight that while there are challenges and impediments in the current system of planning, none of these are insurmountable if there is visionary leadership, political will, and capable strategic and operational teams planning and implementing projects. The V&AW case study in particular highlights that public sector planners working in partnership with the private sector are capable of finding innovative solutions to implementation challenges.

5.3.1.5.5 In summary

Key informant interviewees, individually, broadly supported the three elements proposed by the researcher for the model on integrated tourism infrastructure planning. There was debate on centralised planning but the concept of a national government setting priorities which cascades downwards was supported provided that all spheres of government were involved in the conceptualisation of these plans. There was also agreement that planning for tourism infrastructure should be done at a national and provincial sphere with local government focussing on implementation and being supported in this role by other spheres of government. Broad regional economic development plans, as opposed to plans linked to administrative boundaries, for tourism was also endorsed .

5.3.2 The first form of the model for integrated tourism infrastructure planning in the South African public sector

The researcher used her own experience plus the data from key informant interviews to develop the first form of the model for integrated tourism infrastructure planning. This model is represented in Figure 32 below. The model attempted to capture:

1. **Policy Framework** (first block on the top from the left): Public sector planning commences with an understanding of the prevailing policy. The researcher attempted to capture all relevant policies.
2. **Elements required for integrated tourism infrastructure planning** (second set of three blocks on the top from the left): These are comprised of the National Tourism Spatial Development Perspective; Regional Tourism Masterplans; and Tourism Infrastructure Strategy and Plans, with explanations within in each element of the strategies that these elements need to be incorporated. The one-directional arrows demonstrate that information moves down from the National Tourism Spatial Development Perspective into the Regional Tourism Masterplans, and then flows into the Tourism Infrastructure Strategy and Plan. A hierarchy of plans was envisaged in this first version of the model.

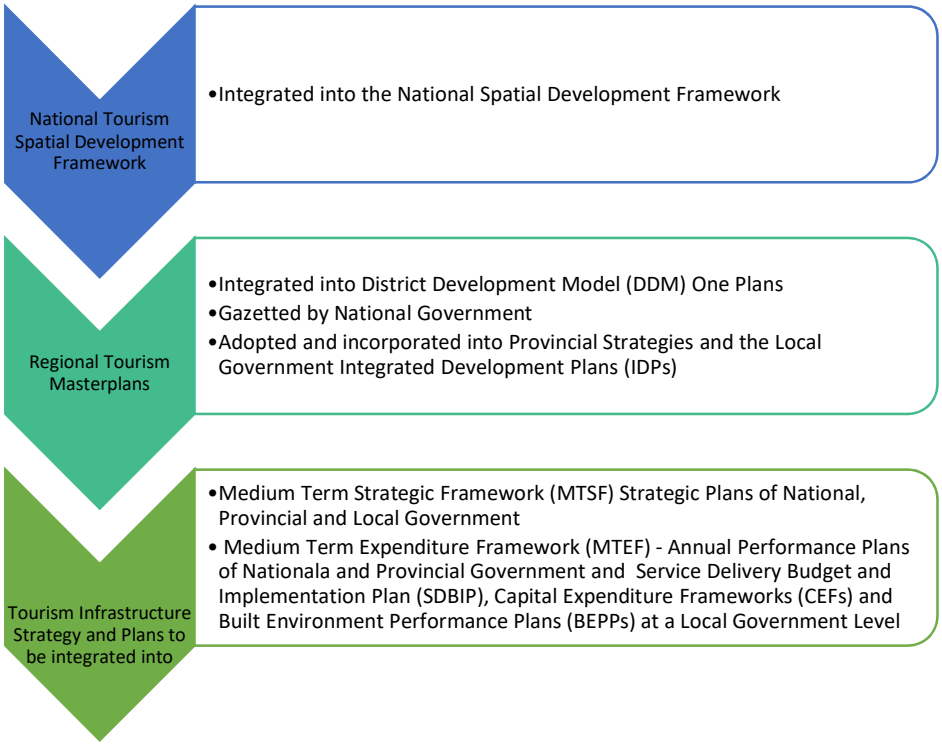


Figure 29 Hierarchy of plans envisaged in the first form of the model for integrated tourism infrastructure planning

3. **Purpose and content of the elements required for integrated tourism infrastructure planning**(third set of three blocks on the top from the left): The purpose and content were provided for the National Tourism Spatial Development Perspective; Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plans as outlined below

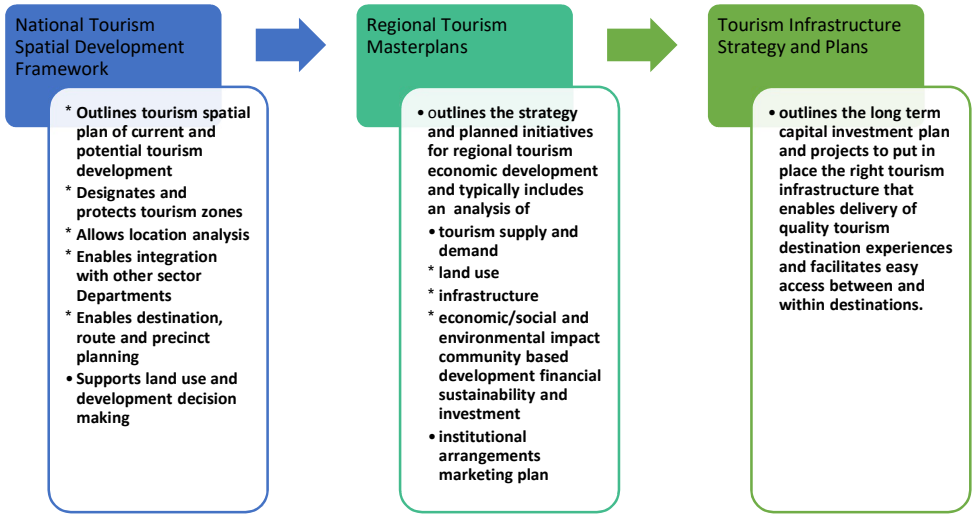


Figure 30 Purpose and content of the elements of the model for integrated tourism infrastructure planning

4. **Roles of tourism and infrastructure planners for the elements required for integrated tourism infrastructure planning**(fourth set of three blocks on the top from the left): The roles and responsibilities of tourism and infrastructure planners were provided for the National Tourism Spatial Development Perspective; Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plans as outlined below

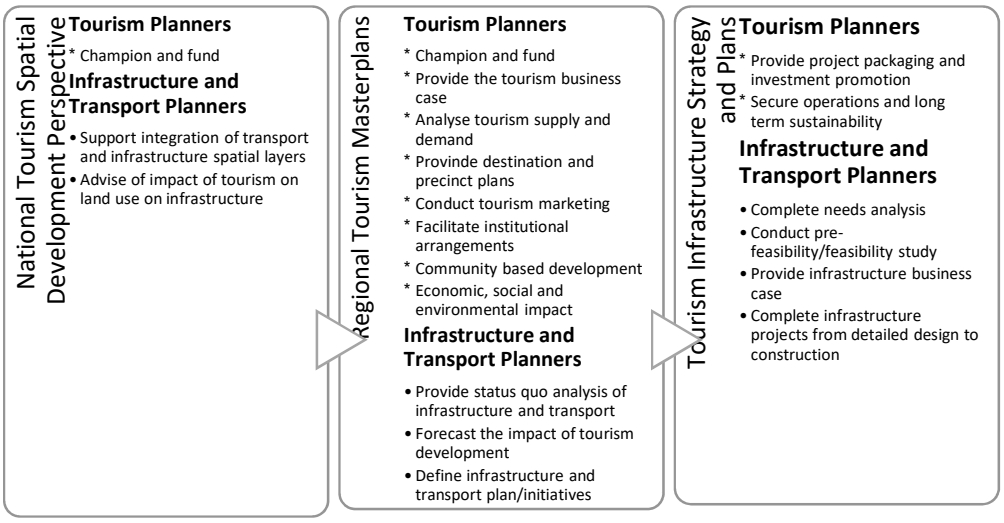


Figure 31 Roles of tourism and infrastructure planners for elements of the model of integrated tourism infrastructure planning

The last two blocks in Figure 32 contain a list of all the **Abbreviations** used in the model (first block on the bottom left) and a set of **Notes** (second block on the bottom left) as outlined below:

- All of these tools are long term plans with 20-30 year implementation horizons. They would need to be broken down into manageable delivery timeframes that align with governments' 5 year MTSF, 3 year MTEF and annual budgeting and planning cycles.
- This model has not addressed the matters of public consultation, personal and institutional relationship building i.e. the human factor. These will be included in future forms of the model

This model was presented for discussion and inputs to participants in the first two focus groups.

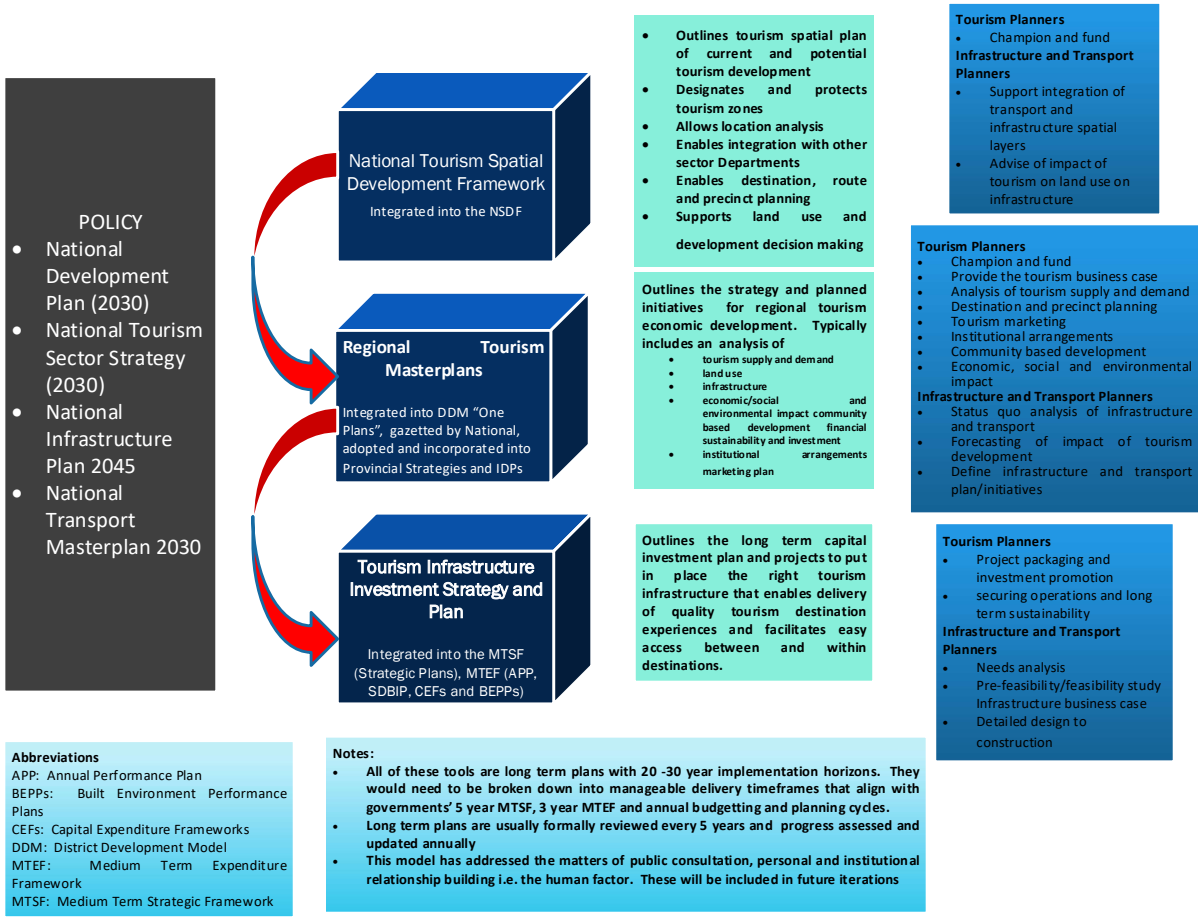


Figure 32 First form of a model for integrated tourism infrastructure planning presented to focus group participants(Researchers own construction)

5.3.3 Focus group findings

Participants in the first two focus groups were presented with the very first form of the model for integrated tourism infrastructure in the South African public sector as illustrated in Figure 38 and described in Section 5.3.2 above. This model had not yet addressed any of the people-related issues that had been raised by key informant interviewees.

Focus group participants made many inputs to this first form of the model. All of the inputs made were very valuable but the most useful input was "*Remember not to wander down the rabbit hole and to stay focussed*." With this sound bit of advice firmly in mind, contained below is a summary of the inputs received from focus group participants and the researchers' reflection on these inputs in relation to refining the next form of the model for integrated tourism infrastructure planning.

5.3.3.1 General comments

This set of comments expressed broad support for the model and its potential to assist integration. The researcher appreciated these comments as they provided confirmation for the value, scope and direction of the research as a tool that could support integrated tourism infrastructure planning. These comments did not require any further decision making from a research perspective.

It's necessary and important work that has the potential to have much wider impact. PR1

The model looks at the lifecycle which is sensible. PW1

The end result of an implementable, collaborative strategy is very exciting.ID1

The integration into statutory plans is absolutely critical, this can be built into implementation plans where plans for tourism plans are developed separately.

This also means that in the process of planning it is critical to have not just tourism planners around the table but the infrastructure people/ whole of government approach in the technical team. This would assist tourism people to understand what is in an infrastructure pipeline and what constraints might exist but also builds understanding amongst those who are not familiar with tourism about how they can support tourism. This could result in a "joined-up"/whole of government approach to tourism. PR3

5.3.3.2 Practical suggestions for improvements to the content of the model

This set of comments did require decision making from a research perspective. Where practically possible, comments were incorporated into the revised model. These include a bi-directional flow between the key elements/building blocks of the model as suggested by participant T05 as it better describes the intention of flow of information and plans between different elements of the model.

The building blocks in the model should be bi-directional. National plans could feed down and inform the other spheres and there may be local areas, regions and Provinces where there is capacity that can generate fine scale plans that can feed into the national level, bi-directional flow is important. TO5

Participant T03 suggested that the use of the word "Champions" in the explanations of model should be reconsidered. This suggestion was made for two reasons, firstly "Champions" are seen as individuals within an ecosystem and this has the unintended consequence of assigning responsibility to an individual rather than to an institution. Secondly, when a "champion" leaves the ecosystem, the work that they support is at risk of no longer being implemented. These comments align with the findings in the Case Study Chapter of the importance of institutional relationships. The use of "Champions" in reference to individuals was therefore removed from the model but retained in reference to institutions.

The introduction of "District" Tourism Masterplans and categorisation of the level of importance of different types of infrastructure were not added to subsequent versions of the model. The introduction of a different building block for "District" Tourism Masterplans was suggested by participants PW1 and SA1 as a way to align with the District Development Model currently mooted by government. This view was in part supported by participant LG1 who suggested that it would be better to use terms that are currently in existence in government policies and documents. However several key informant interviewees had expressed that the nature of tourism development is that it not confined to administrative boundaries. Participant LG1 had also separately expressed that the limitation of local government planning was that it restricted spending and prioritisation to the confines of a municipal area. Weighing all these different inputs the researcher settled on the use of "Regional Tourism Masterplans" as this was considered a more accurate reflection of the nature of tourism development *"A region doesn't obey geographical boundaries, it is where tourism makes sense" TO5.* Further, this did not preclude the development of District Tourism Masterplans which could use information from Regional Tourism Masterplans; but must be aware of integration beyond a District's boundaries. The importance/weighting of different types of infrastructure related to a system or method of prioritising infrastructure needs was also raised in the focus group. Whilst this matter is important, it would have to be considered within the broader context of integrated infrastructure development. This matter was therefore not included in the model.

5.3.3.3 Roles and responsibilities of different spheres of government

The roles and responsibilities of the different spheres of government was a topical discussion in the focus groups. This set of comments did require decision making from a research perspective. The key issue related to which level of government should lead in terms of the different elements of the model. While the Constitution does allocate mandates and responsibilities for tourism and

infrastructure planning and development, the reality is that capacity across the different spheres of government remains uneven, with the greatest challenges lying at local government. The two different views expressed by participants was 1) that planning should remain the responsibility of national and provincial spheres of government with local government being responsible for implementation and 2) that national government should not be responsible for all planning but that work should be done from within various spheres of government.

From the discussions, it was clear that the model would need to include the roles and responsibilities of various spheres of government and different sector departments. While the model will assign roles and responsibilities to various spheres of government, using an ideal scenario, from a practical perspective these roles and responsibilities will have to be assigned depending on the available skills and capacity at the time of implementing any given element described in the model.

A further consideration of cross-border integrated infrastructure planning was suggested by participant TO6 as an expansion of the concept of a Regional Tourism Masterplan. Whilst cross border integrated tourism infrastructure planning is not specifically the intention of this model, the Regional Tourism Masterplan as a tool does not follow administrative boundaries and thus can be utilised for cross-border integrated tourism infrastructure planning.

5.3.3.4 Implementation

There were two threads of comments in relation to implementation. The first thread related to mechanisms to make the model practically implementable. Within this thread were reflections on the need definitions and practical tools allow planners to use the model. The second thread related to how to "fix"

implementation plans within the context of electoral terms which result in changes to administration. Both threads are best represented by reflections from participant T01

How does the model ensure greater implementability? The "What" and "Why" elements are clear, the "how to?" is not clear and doesn't have practical tools to implement. Once you introduce the human factor in processes like this you are adding complexity, but if the model can be clear about implementation then some of this complexity can be undercut. In the end you are trying to sharpen the planning process that will ensure implementation upfront, not as an afterthought which has been a problem with guiding principles that are loosely connected, outline the principles clearly including the bi-directional flow and the mechanism to lock plans into place when the external environment keep changing.

While the development of a "how to guide" is considered to be outside the scope of this study, the presentation of the final model contained in Chapter 6 does attempt to address some of the issues related to implementation. Recommendations are also made for areas of further research study in Chapter 7.

5.3.3.5 People

The details of this theme as reflected in Section 5.1.3.4 of the key informant interviews will not be repeated here. However as this theme is carried over from the key informant interviews into the focus groups, there is an overlap with the information contained in Section 5.1.3.4 and this section. Whilst in Section 5.1.3.4. this theme encapsulated both the people who are served by infrastructure delivery and people who deliver infrastructure, the inputs from participants in this section focussed on the people who deliver infrastructure. The theme of people had not been considered as a separate element of the model but emerged strongly through the key informant interviews. This was therefore the least resolved

element at the time that the focus groups were conducted. The researcher highlighted this in the focus group discussions and participant provided further insights and suggestions to assist with the resolution of this element.

Participants suggested that the model should reflect the need for capacity/knowledge building in relation to the key elements of the model as reflected in the quote from participant TO5 below. The substance of comments from participant TO3 and PR3 below both reflected on the need to create capacity at a local level with participant PR3 bringing in the dimension of a partnership between the public and private sectors.

If the building blocks are there and are solid regardless of changes in thinking e.g. DDM, the essence of this work must remain. Building capacity and having the people who understand the building blocks is therefore critical. This should not be a grand central planning scheme but rather have in place the key building blocks. TO5

In many instances local government is very resource constrained and does not have the capacity to run with plans being developed for their areas, whilst you don't want national to usurp the role of local government, the dilemma is that if they don't step in there will be no-one implementing these plans resulting in disappointment from communities and the private sector and growing lack of confidence in government. Creating the capacity at a local level, even if this is not in local government, to implement projects is critical. TO3

Consider including in the model something on broadening resources to ensure successful implementation. Often smaller municipalities or local government do not have the resources to roll out implementation or even to put the basic plan together but there might be people from the private sector who would be willing to contribute to fulfil the greater plan, not as paid consultants but merely to share and contribute to implementation. PR2

Participants reflected on the need to bridge the gap in understanding of tourism as an important economic sector by the broader public and private sector. This was seen as particularly important by participant PR1 in the context that much infrastructure planning for tourism takes place outside of tourism planning as expressed in the quote below. Participant LG1 made practical suggestions for improving the understanding of tourism through public participation processes as reflected below.

Talking about a tourism focussed infrastructure planning process, however there is a lot of planning for tourism infrastructure that takes place at various spheres of government that is not part of a dedicated tourism planning process. This is a greater concern than the model because very often projects are conceived for tourism that are not informed by a good understanding of tourism, the capacity of people involved in planning at various levels is a critical element, how does this fit into this model? PR1

Public participation is an important element, getting stakeholders to take ownership is more difficult. Consider running tourism readiness programmes to get all stakeholders and role-players to understand tourism, this is particularly important in community tourism development. LG1

Participant GP1 reflected that while people are a critical ingredient, there are also other factors like context and timing that impact on the success of a tourism destination. However, irresponsible actions by public servants that tarnish the reputation of government and erode the trust of citizens also diminish the appreciation of good work in the public sector.

One can't plan for or anticipate the alchemy that makes a tourism destination a success – a tourism infrastructure plan can't impact on the carelessness of other colleagues in government and this should perhaps be highlighted in the research. GP1

Although this theme of people was anticipated by the researcher, the extent of its significance was not. As an anecdote, when the researcher embarked on this PhD journey her inclination was to research the profile of the model civil servant. Her supervisor smiled politely and suggested that this be explored through post-doctoral work. The supervisor was correct as the scope of such a study would be too wide for a PhD. The researcher's intuition and experience about the importance of people in implementation was however also correct.

The presentation of the final model contained in Chapter 6 does attempt to address some of the issues raised in this section. However, at the time of drafting this thesis, the people element has not yet been fully resolved. This element is also included in the Chapter 7 recommendations for areas of further research study.

5.3.3.6 Management of data

The focus group made useful suggestions related, in the main, to the creation of a central repository of information. The central repository would house spatial data, information from all tourism planning processes, a record of developments, land ownership and stakeholder databases. The intention of this central repository would be to serve as point of reference for current and future planning. This work falls outside the scope of the study but has been included as recommendation of the study.

The inputs from the focus group discussion informed Figure 38 contained below which represents the second form of the model for integrated tourism infrastructure planning. The most visible change is the bi-directional arrows reflecting the dynamic process of developing the various elements/building blocks of the model. The text has also been simplified for ease of reading. The "Policy Block" no longer features a list of policies as these change overtime but the

retention of the “Policy Block” is in recognition of the principle that policies always need to be considered in public sector planning. The proposed model for integrated tourism infrastructure planning will be presented in Chapter 6.

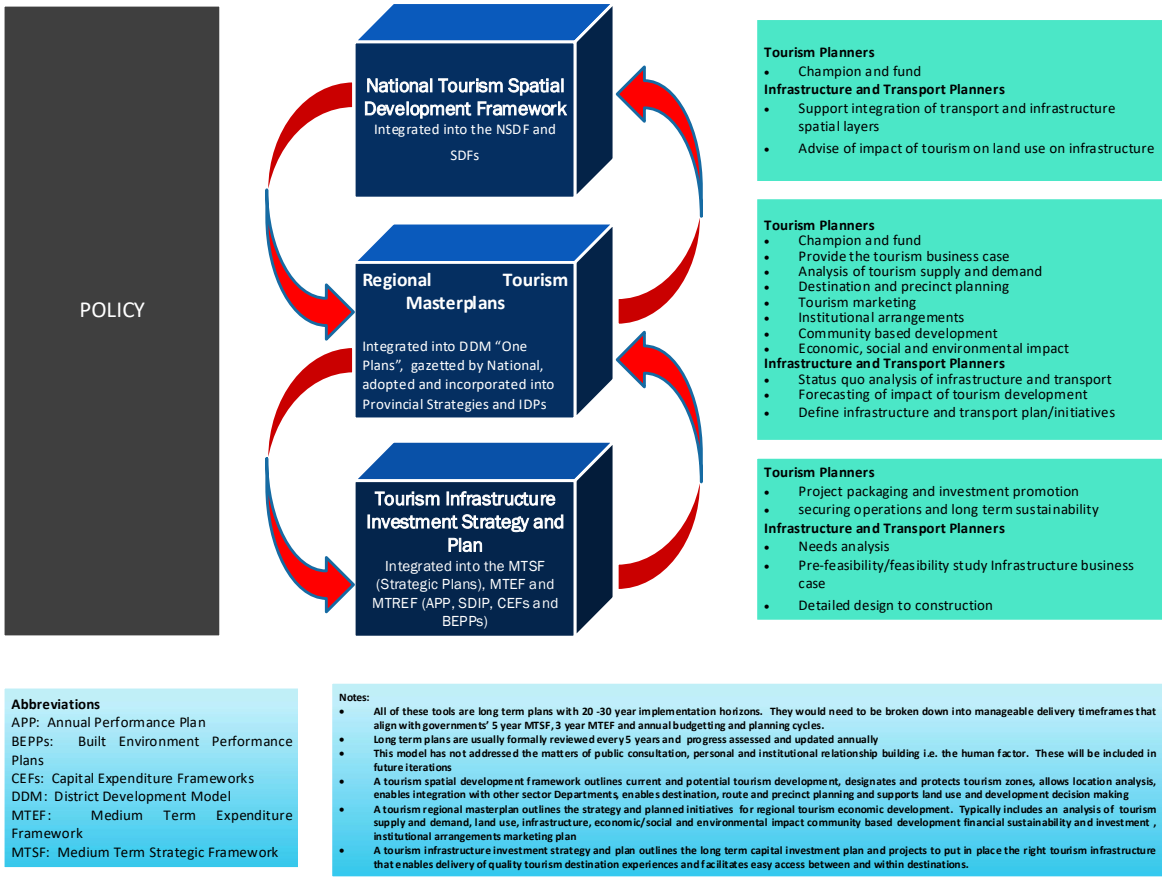


Figure 33: Second form of a model for integrated tourism infrastructure planning post first two focus groups(Researchers own construction)

5.3.4 Testing the model for integrated tourism infrastructure planning for the South African public sector in the Karoo Region

5.3.4.1 Background

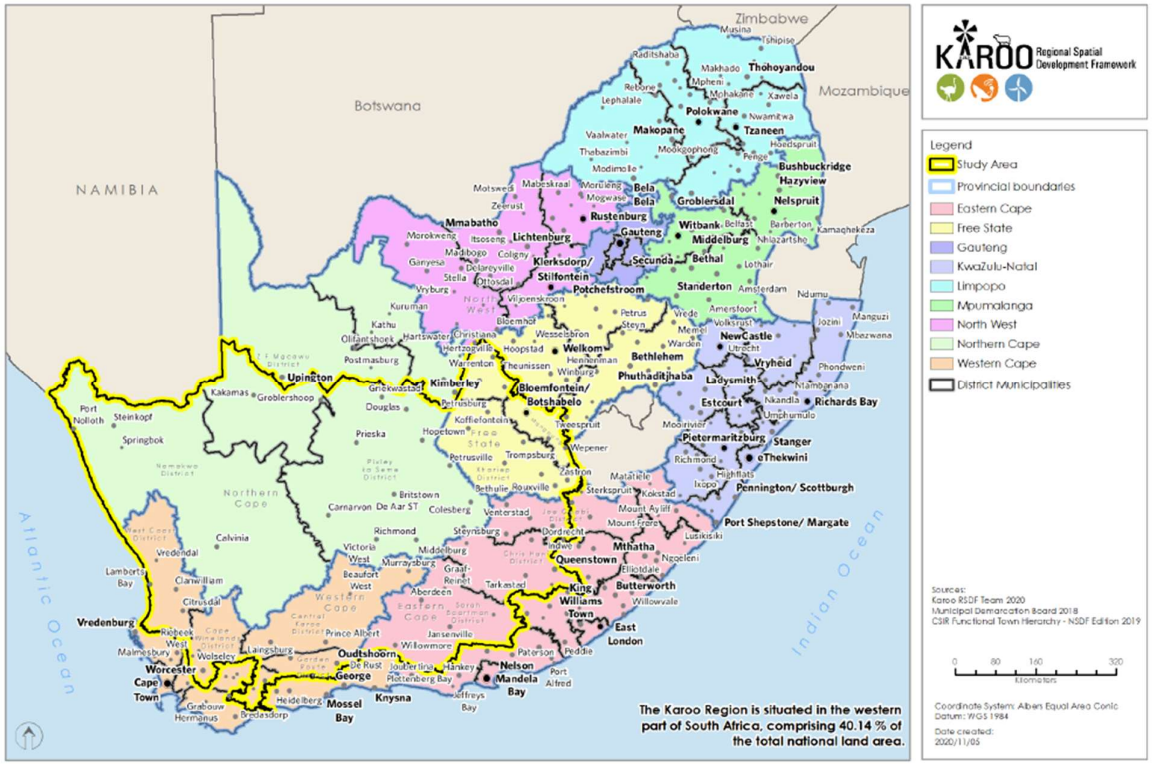
As described in Section 3.5.1. on data collection, after the first two focus groups were completed, the researcher embarked on an extensive review of literature and documents to test the model's practical application for integrated tourism infrastructure planning in the Karoo Region of South Africa.

This region was deliberately selected for a number of reasons. Firstly, like tourism, the Karoo region is not defined by administrative boundaries but rather by regional economic integration. Covering just over 40% of South Africa's national land, it straddles the Free State Province; the Eastern, Western and Northern Cape Provinces, i.e. four of the nine Provinces in South Africa; 13 District Municipalities; one Metropolitan Municipality and 36 Local Municipalities. Secondly, the Karoo was officially proclaimed a region on the 19 October 2020 (Republic of South Africa, 2020). This proclamation further enables cross border and public-private co-operation. Thirdly, and perhaps most importantly, the region presents an opportunity for integrated planning to contribute significantly to economic growth and development. Figure 34 below provides a map of the Karoo Region.

Figure 34: Map of the Karoo Region (Source: Karoo Regional Spatial Development Framework Map 1:10)

Map 1: Karoo Study Area in the South African Context

Karoo RSDF: **Study Area in context of South Africa**



The findings of the extensive literature review process are not provided here. However, a summary is offered to provide context for the findings from the third and final research focus group.

"The Karoo offers nothingness, which is increasingly valuable, in terms of space, silence and solitude" Karoo Tourism Strategy (Karoo Development Foundation, 2012:7).

The Karoo Tourism Strategy (Karoo Development Foundation, 2012) describes the Karoo tourism offering as "extensive, diverse, authentic and of extraordinarily high standard", but also maintains that the artificial boundaries between Provinces and Municipalities hampers regional development. There is an abundance of themed Karoo tourism attractions. These range from geology and landscape; palaeontology; astronomy and astrotourism; historical sites linked to architecture, San and Khwe struggle sites; Missionary History; cuisine and wine; game farming, Adventure Tourism; succulent biological heritage and associated fauna and the people of the Karoo.

The Karoo tourism strategy also made a number of recommendations for tourism infrastructure requirements, which include:

1. Developing the Orange River, the Gariep and the Van der Kloof Dams [40] (two of the largest dams in South Africa) into the "Karoo Riviera"
2. Developing the South African Large Telescope (SALT)/Square Kilometre Array (SKA) into a world-leading astro-tourism area
3. Karoo Railway Tourism
4. Developing Karoo Geo-parks
5. Promoting game farms and hunting tourism

[40] There have sadly been recent reports of failing infrastructure at both these dams

6. A centrally located airport to link with larger centres/airports in the country and region – Beaufort West was mooted at the time
7. Road maintenance
8. Signage
9. Urban street maintenance
10. Central Business District (CBD) refurbishments
11. Well-managed attractions e.g. picnic sites and museums
12. Safe parking facilities
13. Service Delivery

Due to the vastness of the Karoo Region, it is administratively managed as four different Provinces, 13 District Municipalities; one Metropolitan Municipality and 36 Local Municipalities rather than as a single cohesive region. This results in inconsistencies in public sector service delivery and differing quality infrastructure which impacts on the tourism experience. Participant PR3 described some of infrastructure challenges in the Karoo Region and emphasises the value of integrated planning for economic growth.

The work in the Karoo started because the Karoo is a region divided into four provinces and we discovered that there was zero collaboration between the provinces, so the one province would repair a road up to the border and the other province wouldn't. On one side of the border your tourist/traveller could drive on a nice road and at the other side of the road they would disappear into a pothole! …. In the Karoo where tourism or tourism infrastructure for us became critical was the issue of air travel, air links are absolutely critical. There isn't an airport in the Karoo, the closest airport is in PE and Bloemfontein and then there are a lot of little airfields where private flights can land. For a while we made a strong pitch for a public airport or for an airport servicing scheduled flights in Beaufort West and we published a lot about that. In terms of airline thinking, if you build an airport chances are it will be used, and it will stimulate new activity so that it is used. We pushed this argument, the National Department of Tourism was slightly interested,

and the local municipality didn't see the point of the airport for the benefit of the town. The important thing about having an airport with scheduled flights is that you can have car rental, that's the winning formula because with a car rental you don't need to have local transport and you have flexibility to move around to do any of the activities like visiting family, being a tourist, shopping, etc. The short sightedness of the municipality is linked to the problem that people associate infrastructure, not with economic spin-offs but with consumption. Municipalities see consumption infrastructure like taps and toilets as being more important and being a greater need than understanding the turnkey role of infrastructure and seeing infrastructure as a lever to make other things happen. I think governments focus on addressing the problems of the poor has actually created a kind of myopia and lacks the understanding that stimulating the economy, creating jobs and the circulation of money is also seriously in the interest of the poor as much as the provision of taps and toilets. We get stuck with this very limited understanding of infrastructure. PR3

There have been a number of tourism infrastructure projects supported by the National Department of Tourism in the Karoo region. These are contained in Table 18 below. This list of projects includes the completion of three regional tourism Masterplans for:

1. Sutherland to Carnarvon (Department of Tourism, 2020a): This Masterplan has a 30 year time horizon and suggested two potentially catalytic products. First, a world class multipurpose National Desert Botanical Garden building on the riverine rabbit project and nursery. Second, leveraging the Sutherland Observatory and Square Kilometre Array (SKA) to combine science, local tradition and folk tales for new tourism product development. To deliver these products would require a total investment of R 548 million, which could have an economy-wide impact of approximately R 231.5 million on provincial GDP and R109.5

million in revenue, bringing vulnerable households R 26.8 million in income and creating 1 712 formal and informal jobs.

2. Port Nolloth to Hondeklipbaai (Department of Tourism, 2020b): This Masterplan has a 30 year time horizon with the tourism focus on adventure, nature-based, cultural and heritage products and experiences. To deliver such tourism products in the Hondeklip Baai/Port Nolloth Corridor would require a total investment of R 682 million, which could have an economy-wide impact of approximately R 481 million on provincial GDP, R 284 million on revenue and create 3 562 formal and informal jobs. Major access roads requiring immediate attention are the R355 and R382, with 50 km requiring paving between Hondeklip Baai and Kleinzee; and 18 km of road needs paving to connect Hondeklip Baai from Kamieskroon to the N7 highway.
3. Orange River Mouth to Vioolsdrift (Department of Tourism, 2020c): This Masterplan has a 30 year time horizon and extends 120km from the Orange River Mouth at Alexander Bay to Vioolsdrift. Tourism offers adventure and nature-based experiences at the Orange River Mouth, Transfrontier Park and Richtersveld World Heritage Site and Park, and cultural experiences of the San Ways of Life, Rock Art and a Faith Based Missions. To deliver these products would require a total investment of R 574 million, potentially providing an economy-wide impact of approximately R 273 million on provincial GDP, R 161 million on revenue and create 2 021 formal and informal jobs. Major access roads requiring immediate attention are the paving of the 101km road between Alexander Bay and Sendelingsdrift, and paving of 188 km road to connect the R 382 with Eksteensfontien and Kuboes.
4. Wild Coast Masterplan (Department of Tourism, 2020d): This Masterplan has a 30 year time horizon and has 4 tourism development zones namely Mbizana/Mkambati, Lusikisiki/Mbotyi, Port St Johns/Libode and Coffee Bay/Hole in the Wall. The area offers action, adventure, culture and

heritage encounters. To deliver these products would require a total investment of R 673 million which could have an economy-wide impact of approximately R 587 million on provincial GDP, and create 7 136 formal and informal jobs. Major access roads requiring immediate attention are the R61/Hluleka Nature Reserve, R349 near the Coffee Bay and the Lusikisiki/Mbotyi coastline, and a 195km portion of the N2 Wild Coast Meander.

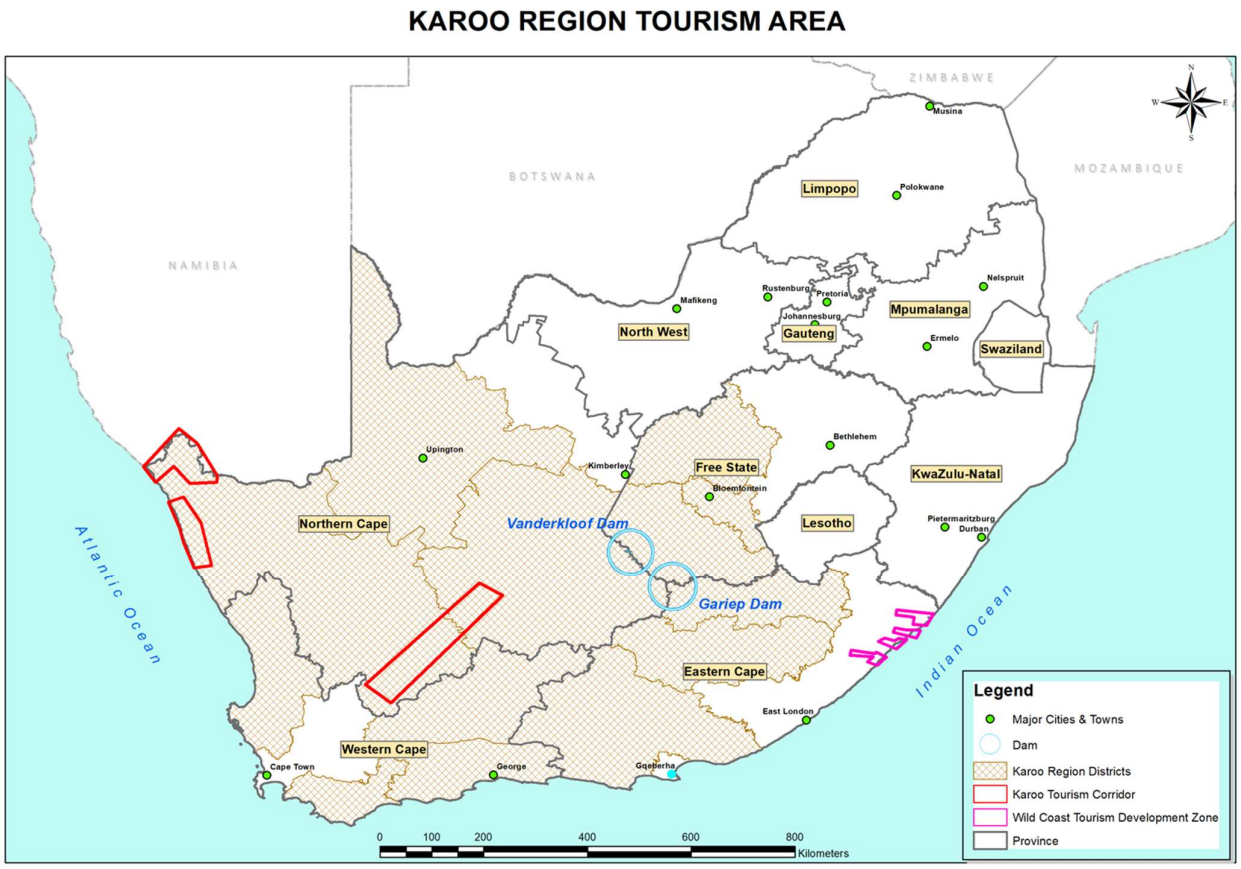
Table 18: List of infrastructure related initiatives in the Karoo Region that are supported by the National Department of Tourism (Source: National Department of Tourism Presentation for the Karoo Region Stakeholder Forum, July 2021)

NDT SUPPORT IN THE KAROO REGION (only infrastructure related)	KAROO ROLE ***(PROVINCE, DISTRICT, LOCAL)***	INDICATIVE TIMELINES
Piloting and implementing a budget resort brand and network concept (prioritizing economically depressed regions)	Participation and piloting support	March 2023
Implement Leopard Trail and Interpretation Centre at Baviaanskloof WHS (EC)	Participation; coordination	March 2022
Construction of the Dinosaur Interpretation and Exhibition Centre (FS)	Participation; coordination	March 2022
Construction of visitor facilities at Goukamma Nature Reserve (WC)	Participation; coordination	March 2022
Fund and monitor the implementation of infrastructure maintenance in National Parks and Provincial State-Owned Attractions: • Addo National Park (EC) • Camdeboo (EC) • Mountain Zebra (EC) • Karoo (NC) • Augrabies (NC) • Namakwa, (NC)	Participation; coordination	March 2022

• Richtersveld Transfrontier Park (NC) • Kgalagadi (NC) • Tsitsikamma (WC) • Bontebok (WC) • Tankwa-Karoo (NC/WC)			
CROSS-CUTTING INITIATIVES	**SUTHERLAND TO CARNARVON INITIATIVES**	**PORT NOLLOTH TO HONDEKLIPBAAI INITIATIVES**	**ORANGE RIVER MOUTH TO VIOOLSDRIFT INITIATIVES**
Implement nationwide shared campsites designs **Implement prioritised initiatives from the Indi-Atlantic Route** **Implement prioritised initiatives from Cruise Tourism Maximization Strategy and Coastal and Marine Tourism** **Prioritise bulk (energy, water, ICT) and roads**	Implement Carnarvon Precinct Plan	Implement Kleinzee Precinct Plan	Develop and market the San Diamond Challenge
	Complete SKA Interpretative Centre Facility as well as Knowledge Hub	Detailed feasibility for the Northern Cape Coastal Aviation Infrastructure	Expansion of river adventure activities along the river mouth
	Concept for Astro-Tourism: Stargazing and Khoi storytelling	Concept for Northern Cape Coastal Waterpark	Upgrades of strategically-located accommodation facilities in Eksteenfontein, Kuboes, Lekkersing, Sanddrift
	Package a range of Khoi and Xhosa cultural events and festivals	Revamp Augrabies Park and Waterfall – 56 m high	Develop tourism products and experiences around Rock art and San ways of life (guided tours, village

infrastructure			stays, artifacts, San Heritage Route)
	Develop a multi-purpose academic centre for environmental, historical and social research	Upgrade Port Nolloth and Kleinzee Museums Repackage Namakwa festival(s)	Guided routes, hiking trails, accommodation facilities in Richtersveld National Park, World Heritage Site and Ais Transfrontier Park
	Karoo succulent garden (Loxton)	Upgrade Nama Khoi cultural centre	Concept for Research Retreat
	Develop art and craft cluster to manufacture local curios	Market region for its 4 849 plant species and 150 bird species	Assess faith-based mission tourism
		Develop Kleinzee Beach and waterfront for swimming, snorkelling, accommodation, seafood restaurants.	Infrastructure (interpretative centre, ablution facilities, boardwalks) at Orange River Mouth
		Develop and promote Kamiesberg adventure tourism	
		Upgrade of Klipspringer, Gorge and Dassie Hiking Trails	

Figure 35: Karoo Region Tourism Infrastructure Initiative Areas (Department of Tourism 2022)



Although there has been a great deal of work to integrate planning in the Karoo Region, particularly through the Karoo Regional Initiative, this work has not been without its challenges. The key challenge is changes to and capacity at a political and administrative level. This frustrates collaborative efforts which often have to recommence following electoral changes. Personal or political agendas also impact on the success of collaborative efforts. Changes in the public sector occur very slowly. Below are three interviewee perspectives on the challenge of integration from participants PR3, TO1 and SA1.

The SALGA initiative has taken perseverance, open and progressive thinking and gradually that is how one changes paradigms, it will take a while but it's a good investment. The challenge is the systemic problems at both the political and administrative level, it requires high level political interest and support. PR3

The broader Karoo Regional Integration is very effective in integrating the tourism infrastructure space. While the SALGA process was instrumental in bringing in various stakeholders, it was conceptual and therefore there is no level of commitment – very useful from a spatial planning view but the process was not well co-ordinated. Stakeholder consultations in the regional economic development in a more structured format had just commenced but have now been halted, the "One Plan" is better planned in conception and analysis is taking the approach of defining sector priorities and then superimposing these on a region but in practice this is not the case. TO1

I think that the benefit of a regional approach is quite big. The challenge is that when we finish with a conference, some of the stakeholders continue with the work but at the municipal level, they're not institutionalizing it despite having Council resolutions adopting that they will be part of the Karoo region, that's a policy issue but they don't do enough to collaborate with each other. I think when they return they go back into the same routine and I think that's the challenge. It's

difficult to get municipalities to look at regional initiatives because then they begin to think of their municipality, they will just talk about the municipal area and sometimes if the Mayor is a Ward Councillor, he will talk about his Ward. It's difficult for municipalities to make the paradigm shift in their thinking, "If I think about this region, where will this initiative be best placed even if it means that I get less of it?", because what they will want to do is make sure that "This will benefit my municipal area more than the other ones" and that's the challenge That's something that we are have to work on, how do you be become more a part of this regional approach where you think regionally but you can still see the benefits for your local municipality or your local town centre? That is for me the big challenge besides the challenges within municipalities, some of which are dysfunctional politically and administratively with not much happening in those areas. SA1

5.3.4.2 Focus Group Findings

The third and final focus group was designed to present to, and elicit inputs from the participants, of the model's practical application for integrated tourism infrastructure planning in the Karoo Region of South Africa. Comments from this third focus group were used to further refine the model. At the end of a very long research journey the quote below from participant TO3 was confirmation of the value of the model, but also an indication of the continuous practical challenge of integrated planning in a very complex South African public sector.

The model does work for integrated tourism infrastructure planning in the Karoo. An area that may be outside the scope of this study is the area of accountability on planning. This might be raised as an area for further study. Government has so many plans but the system does not reward the implementation of plans. The public sector has been turned into a "compliance machine". Anything that is not incentivised is not easy to implement in the public sector, the model is workable but how will implementation be incentivised and how

will people be held accountable for implementation? There must be a way to lock in the plans and also lock in the actual implementation. TO3

Participants PR3 and SA3 appreciated the contribution made by the consolidation and analysis of information by the researcher on the Karoo Region. Participant SA4 also indicated that this information would assist planning, particularly for small towns, in the Karoo Region in the Karoo Region. The value of this model in addressing the skewed distribution of tourism infrastructure projects from rural areas and in supporting inclusive participation and development is also highlighted. Participant SA4 further provided useful suggestions for how to improve implementation of the model within the context of addressing some of the broader challenges to infrastructure implementation, e.g. the lack of data, shortage of skilled individuals to plan and implement projects and the need to develop and package bankable projects.

What is really valuable is that you have gathered up an almost state of the art of where various thinking is going in the Karoo region and you're the first person to have done this in the last decade. PR3

An important discussion that emerged during this focus group was about how to achieve a balance between supply and demand approaches. Whilst participants understood that the model itself was a supply driven approach, participant PR3 highlighted that a balance between demand and supply might lie with combining the "systems" and "people" elements. The key thread of this argument was that an only supply driven approach, which is typically followed by government, does not provide support to a "demand" driven approach that come from citizens.

The current government logic of planning is very elegant but quite deceptive. There is a built intention at quite a profound level between the focus on people and the focus on systems ….. The system is on the face of it very rational and logical and is the basis of all government plans, national, provincial and local but what happens in practice is that things get incredibly snarled up, in practice

due to budget pressures different sectoral Departments spend on their priorities but the system of planning (integration) actually breaks down …. in a way, you might have the answer to this which is the emphasis on "People" – people are endlessly creative and can make a difference. Instead of a State that devises plans at different levels and endlessly rolls these out in a supply driven fashion actually responds in a demand driven fashion to innovative individuals in communities. There is a tension between a supply driven and demand driven approaches and the model is trying to straddle them, can't just have a supply or demand driven approach, there needs to be a balance of both, very often government officials buy into a supply driven approach. Be careful not to present this approach (supply driven) as the only approach, there is another logic which is bottom up demand driven, a good example of this institutional approach is the National Lottery, while they get the responsiveness to people right the downside of the approach is that there is no overarching planning or coherence. The model will have to find a balance between these two modalities. The fact that the research has found that "people" are the most important element is incredibly important and insightful…. The state must know when to intervene and how much to intervene and when to wait and give a demand driven response to develop. … Planners need to be sensitised as to what can local people handle at a given time. So I think that a balance between a demand and supply driven approach can work but the challenge for a model is to say when and how do you marry the "people" thing with the "systems" thing. PR3

The input from participant PR3 sparked further debate on the role of state versus the role of citizens. Participant TO5 reflected that the state had a critical role to play in wider area long term planning in the form of a Tourism Masterplan which allowed for supply side responses to develop. This input provides clarity on the role that Tourism Masterplans can play in identifying tourism infrastructure projects that should be included in the IDP of local authorities. This input further clarifies that the role of National Government is, largely, planning. Although

National Government implements some catalytic projects, the responsibility for implementation must lie with Provinces and Local Government. Ongoing capacity-building to support this distinction in roles is a necessity. This input is very valuable in explaining the practical implementation of the model.

In the wider plan the State does need to do spatial planning and can't necessarily wait for people to plan, responsiveness to people is important but planning also needs to be pragmatic. It's necessary to have the right people in the right places to think through these challenges. The Tourism Planning model that is being used starts at a National level and then goes to the local level but National Government is not responsible for implementing all of this work, implementation support is provided for example through investment promotion or the Expanded Public Works funding. Capacity building has been done and needs to be continued to be done to create capacity at all levels of government. Masterplans actually assist to provide tangible projects for the IDP process and the Masterplans do not contain only new projects but have begun with what exists on the ground. TO5

Participant WC1 supported the rationale of the current model but reflected on the need for the state to partner with both the private sector and communities.

There are multiple ways of looking at planning and there are different rationalities around the approaches. As a planner this looks fine as this needs to talk to other planning instruments like SPLUMA and IDPs etc., there is logic in having different tourism infrastructure plans as this brings attention to the infrastructure that is needed at different destination scales, at the same time because the power does not sit with Tourism, but rather the Infrastructure team principally roads who have the biggest influence on how our urban environments are shaped, the challenge for the tourism sector is how do you get the needs of tourism addressed/prioritised in the Infrastructure Plans and Strategies falling within the SPLUMA framework. How do you incorporate communities planning and owning spaces in ways that can create meaning for tourists? This is where place making aspects become important. WC1

The discussion on finding a balance between supply and demand driven approaches is an important reminder of the complexity of public sector planning and the importance of government's role in creating an enabling environment for private sector initiatives rather than leading these developments themselves. The implications of Leiper's (1979) concept of PIIT for the model on integrated tourism infrastructure planning is an area recommended for future research. Implicit in the model is a demand driven approach to supplying tourism infrastructure but central to the model are skilled and capacitated public servants. This has always been an implicit assumption on the researcher's part. It has become obvious through this research that "People" are a critical element of the model and in fact central to the integration of tourism infrastructure planning.

Participant WC1 and TO2 also posed a set of question that required the researcher to carefully reflect on the underlying assumptions of the model. These inputs emphasised that the underlying assumptions for the proposed model will need to be clearly articulated. The approach being mooted in this model is not public policy although the National Department of Tourism has explored the use of Masterplans in various regions of South Africa. This model therefore provides "**a** way" rather than "the **only** way" for integrating tourism infrastructure planning. The model is created within the current context of planning, as effecting changes within the government system is time consuming and onerous. The model does assume an ideal functioning system of government, and attending to issues of corruption fall outside the scope of this research. As stated previously, although the model has specifically been designed for the South African public sector, the elements of the model and the intended purpose that they serve can certainly be applied in other countries. The model is not intended to be policy or legislation, but rather a tool for achieving integration of tourism infrastructure. The model also does not envisage changes to the constitutional mandates and responsibility for infrastructure or tourism. It takes a more pragmatic approach towards

flexibility in assigning roles, and on dependence of the available skills and capacity at the time of implementing any given element described in the model.

Is the research indicating that this is the ideal framework required for tourism infrastructure or is this the approach that National government is advocating should be taken for tourism infrastructure planning? WC1

What are the assumptions for the model? Will the model be implemented in the prevailing legislative and policy framework? If the IGR Framework was working then the model would make perfect sense as co-operation is contemplated within this framework as well as the spatial development framework and now the District Development Model. What is the scale of the infrastructure that is being developed and will the model articulate which level of government infrastructure should be implemented at e.g. should trails be implemented at a local government level and bulk infrastructure remains where it is now? We often say that the state is inflexible but what is the alternative – not unique to South Africa as the State is responsible for accounting for massive public funds? The model assumes an optimally functioning state but we have the morass of corruption that we are still dealing with and the local government level is where some of our biggest challenges in governance occurs - where is the model applicable? Is it just South Africa? If so, what are the issues that the model needs to speak to within the prevailing conditions of the State? The model is great but does it just add another layer to one of the best policy and legislative frameworks in the world? Do the people issues fall outside the scope of the model and if this is not dealt with what are the implications? Will tourism still be seen as a key economic sector and if so how does this affect the categorisation of infrastructure? TO2

Participants T06 and SA4 both reflected on the importance of public sector planners understanding the infrastructure needs for tourism in order to facilitate integration of these needs into broader infrastructure planning. Participant SA4 highlighted the need to maintenance of existing infrastructure. A key learning for the researcher through this study has been the critical importance of

infrastructure maintenance. With the notable exception of SANParks, other government entities responsible for tourism infrastructure assets do not have condition assessments, i.e. technical assessments identifying the maintenance needs for these assets, and do not have a systematic or budgeted maintenance plan. It is not possible to manage what one does not fully understand. A key recommendation from this study is that all state entities managing tourism assets should complete condition assessments of their infrastructure and budget adequately for infrastructure maintenance.

"*This is another example of poor infrastructure maintenance that prevents a tourism asset from realising it's true potential. These are some issues that the research might want to investigate from a policy and planning perspective. SA2*

Participant TO6 further reflected that a distinction was required between bulk infrastructure and infrastructure serving purely a tourism function. The intention of the model is to integrate all infrastructure in the delivery of tourism, not just infrastructure that purely addresses the needs of tourists. Hence the broad encompassing definition of tourism infrastructure as proposed through this study.

The tourism sector does not have demand scenarios informing plans, it's important to have these demand scenarios and drivers in order to engage with those responsible for bulk infrastructure (e.g. water, roads) and influence their plans. Are the needs of tourism understood and communicated? – the Phalaborwa IDP did this very well. There are two types of infrastructure, those that are built by sister Departments (bulk) and those that are tourism specific. Cross border tourism projects (across municipalities) should be understood so that infrastructure developed in one region considers and supports what is being done in another region. Cross border initiatives should be prioritised at a National level as these straddle borders. In the Masterplans it's important to look at both the direct and induced benefits of tourism infrastructure investment in order to make the case for the investment. TO6

"Eureka! I've found it!" Archimedes' moments are rare in research. Participant PR3, provides singular clarity that the model created through this research links spatial and economic planning with infrastructure planning. In the combination of these three elements lies the practical contribution of this study.

The idea with the Karoo Tourism Agency was to build a flexible structure that is not bound to government systems, build a cadre of individuals who know what they are doing (and understand what is going on in the region), give them a budget and give these individuals an opportunity to freewheel and work with communities to develop the area. IDPS are a very blunt and heavy instrument and do not drive development, IDPs help to co-ordinate sectors where it is required. The shift in this research is that it's moving away from infrastructure into spatial thinking, the magic in this would be to marry the spatial planning with community development! Think spatially first, create the institutions outside of government and the institutions can lobby for the infrastructure. The State needs to be relieved from micro planning and micro implementation. How do you marry demand driven innovation and supply driven support? PR3

5.3.4.3 In summary

The researcher's own assessment of the testing of the model for integrated tourism infrastructure planning in South Africa is summarised in Figure 36 below. In summary, only the first two elements of the model, i.e. the National Tourism Spatial Development Framework and Regional Tourism Masterplan, could be tested in the Karoo Region. Both these elements demonstrate usefulness at an integrated tourism infrastructure planning level. Although the third element, i.e. Tourism Infrastructure Investment Strategy, could not be tested, the contents of the regional Masterplans do provide a basis for support of the third element.

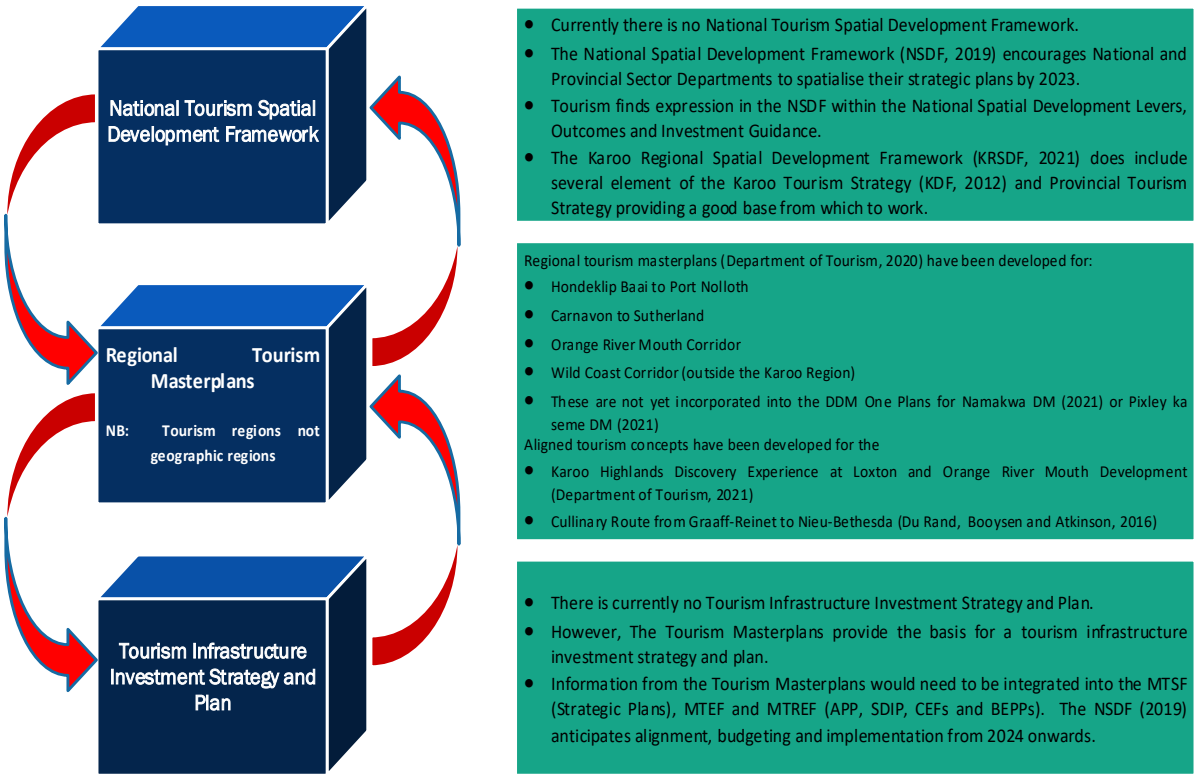


Figure 36: The researcher's assessment from testing the model in the Karoo Region

5.4 Conclusion

This chapter presented and discussed the findings from the research study. The chapter provided the findings from 26 key informant interviews and three focus groups. It includes a proposed definition of tourism infrastructure. This chapter also introduced the initial description of a model for integrated tourism infrastructure planning in South Africa. The proposed model for integrated tourism infrastructure planning for the South African public sector will be presented in the next chapter. For ease of readability, the model itself is contained on the next page and is followed by the chapter providing a detailed explanation of each element of the model.

A MODEL FOR INTEGRATED TOURISM INFRASTRUCTURE PLANNING IN THE SOUTH AFRICAN PUBLIC SECTOR

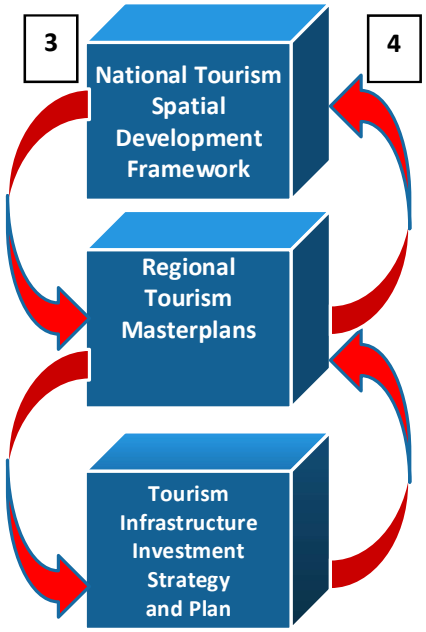
1

Tourism is "the activities of persons traveling to and staying in places outside their usual environment for not more than one (consecutive) year for leisure, business and other purposes" (UNWTO 2016). Tourism infrastructure firstly enables tourism and secondly is the physical place or space that tourists enjoy whilst at a tourism destination. Tourism infrastructure is "the supply chain of leisure, business, natural, cultural, enabling and collaborative infrastructure that helps to create a tourism destination" (Adapted from the Australian Transport and Tourism Forum (2008). The components of this supply chain are: **Enabling Infrastructure (Public sector funded**. This infrastructure supports a number of economic sectors including tourism) Transport, Energy, Water and Sanitation, Safety and Security, Healthcare Facilities; **Leisure and business infrastructure (Mostly private sector funded)** hard infrastructure like accommodation, convention centres, stadiums, museums, and tourist precincts and soft infrastructure like a brand and customer service excellence; **Natural and cultural infrastructure (Public sector funded)** includes national, provincial and local parks, reserves, museums, world heritage sites and visitor centres and **Collaborative Infrastructure (Public private partnerships) –** The network of the institutions and relationships between public and private sector actors who develop and market tourism destinations and distribute tourism products.

2

POLICY

3



4

Tourism Planners
- Champion and fund

Infrastructure and Transport Planners
- Support integration of transport and infrastructure spatial layers
- Advise of impact of tourism on land use on infrastructure

Tourism Planners
- Champion and fund
- Provide the tourism business case
- Analysis of tourism supply and demand
- Destination and precinct planning
- Tourism marketing
- Institutional arrangements
- Community based development
- Economic, social and environmental impact

Infrastructure and Transport Planners
- Status quo analysis of infrastructure and transport
- Forecasting of impact of tourism development
- Define infrastructure and transport plan/initiatives

Tourism Planners
- Project packaging and investment promotion
- securing operations and long term sustainability

Infrastructure and Transport Planners
- Needs analysis
- Pre-feasibility/feasibility study Infrastructure business case
- Detailed design to construction

5

PRINCIPLE

At the heart of this model is collaboration between the people who control resources, systems and institutions at the different sphere of government.

PEOPLE

Those who serve:
- Ongoing capacity building and information through peer learning networks
- Incentives and recognition for joint planning and implementation
- Tourism infrastructure toolkit which includes a common set of definitions, planning tools and case studies of successes and failures

Those who are served:
- Place-making
- Asset based community development

6

Assumptions:
- **The model has been developed for the use in South African tourism and infrastructure public sector planning. Implementation is envisaged within current policy and legislative frameworks**
- **All of these tools are long term plans with 20 -30 year implementation horizons. They would need to be broken down into manageable delivery timeframes that align with governments' 5 year Medium Term Strategic Framework (MTSF), 3 year Medium Term Expenditure Framework (MTEF), Medium Term Revenue and Expenditure Framework (MTREF) and annual budgetting and planning cycles. These would also need to be integrated into relevant policies, strategies and plans at a National, Provincial and Local Government Level and widely communicated.**
- **Long term plans are usually formally reviewed every 5 years and progress assessed and updated annually**

Definitions
- **A tourism spatial development framework outlines current and potential tourism development; designates and protects tourism zones; allows location analysis; enables integration with other sector Departments; enables destination, route and precinct planning; supports land use and development decision making.**
- **A tourism regional masterplan outlines the strategy and planned initiatives for regional tourism economic development. Includes an analysis of tourism supply and demand; land use; infrastructure; economic, social and environmental impact; community based development; financial sustainability and investment and institutional arrangements. Importantly a tourism region is not defined by political boundaries.**
- **A tourism infrastructure investment strategy and plan outlines the long term capital investment strategy and planned projects to put in place the right tourism infrastructure to deliver quality tourism destination experiences and facilitate easy access between and within destinations.**

Figure 37 A proposed model for integrated tourism infrastructure planning in the South African public sector (Source: Researchers' own construction)

Chapter 6

6 Proposed model for integrated tourism infrastructure planning in the South African public sector

6.1 Introduction

The aim of this study was to develop and test a model for integrated tourism infrastructure planning in the South African public sector. The first outline of the model was provided as Figure 32 in Section 5.3.2. The final model is provided in Figure 37. This chapter provides a detailed explanation of each element of the model and also provides additional notes on implementation.

6.2 A detailed explanation of the model

This section provides a detailed explanation of the model for integrated tourism infrastructure planning. Figure 37 is comprised of six components:

1. Definitions of tourism and tourism infrastructure
2. Policy Framework
3. Elements required for integrated tourism infrastructure planning
4. Roles of tourism and infrastructure planners with the elements required for integrated tourism infrastructure planning
5. Principle and People
6. Assumptions and definitions

Each component of this model will now be explained in further detail.

1. **Definitions of tourism and tourism infrastructure** (first block on the top): This provides context for the model and is outlined in the text box below.

Tourism is defined as "the activities of persons traveling to and staying in places outside their usual environment for not more than one (consecutive) year for leisure, business and other purposes" (UNWTO 2016).

It would therefore stand to reason that tourism infrastructure firstly, enables tourism and secondly, refers to the physical place or space that tourists enjoy whilst at a tourism destination.

Tourism infrastructure is, therefore, "the supply chain of leisure, business, natural, cultural, enabling and collaborative infrastructure that helps to create a tourism destination" (Adapted from the Australian Transport and Tourism Forum (2008). The components of this supply chain are:

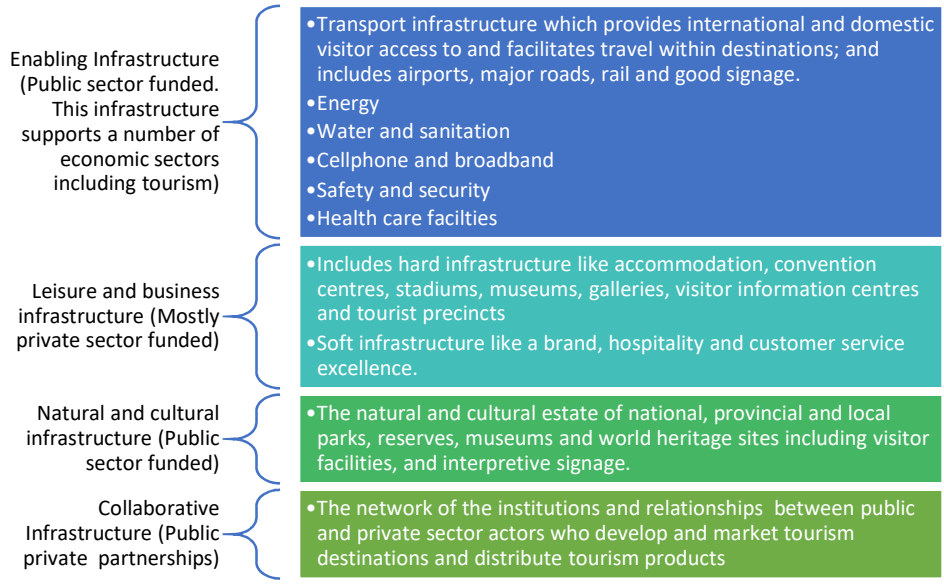


Figure 38 Definition of Tourism (UNWTO, 2016) and Tourism Infrastructure (Adapted from Australian Transport and Tourism Forum, 2008)

2. **Policy Framework** (first block in the middle from the left): Public sector planning commences with an understanding of the prevailing policy. This block is included in recognition that all work in the public sector must be

cognisant of the prevailing policies. Since policies change over time, the current government policies have not been listed.

3. **Elements required for integrated tourism infrastructure planning** (second set of three blocks in the middle from the left): These are comprised of the National Tourism Spatial Development Framework; Regional Tourism Masterplans; and Tourism Infrastructure Strategy and Plan. They are the essential building blocks of the model. The bi-directional arrows demonstrate the flow of information between the National Tourism Spatial Development Framework, the Regional Tourism Masterplans and the Tourism Infrastructure Strategy and Plan. In other words these three building blocks continue to inform the others in an iterative fashion.
4. **Roles of tourism and infrastructure planners with the elements required for integrated tourism infrastructure planning** (third set of three blocks in the middle from the left): The roles and responsibilities of the various planners are outlined below.

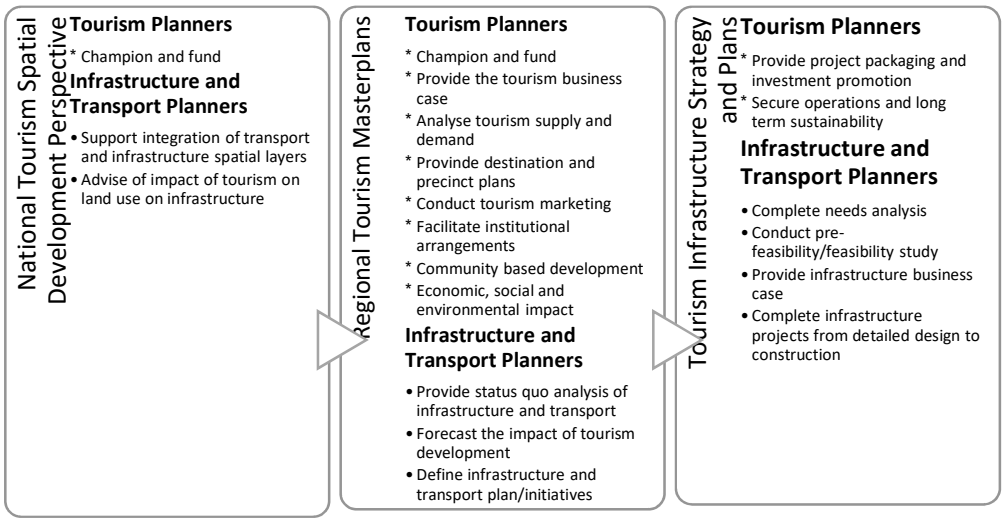


Figure 39 Roles and Responsibilities of Tourism Planners, Infrastructure and Transport Planners for the National Spatial Development Framework, Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan (Source: Researchers own construction)

5. **Principle and People** (Fourth block in the middle from the left): This model will work if there is collaboration between the people who control resources systems and institutions at all three levels of government. As pointed out repeatedly in the research process, people matter! The element of people has two dimensions, firstly those who serve and secondly those who are served. Those who serve refers to public servants, and those who are served refers to communities to which tourism infrastructure is delivered. Although this element of people remains unresolved at the time of writing this thesis, the model suggests the following for each dimension.

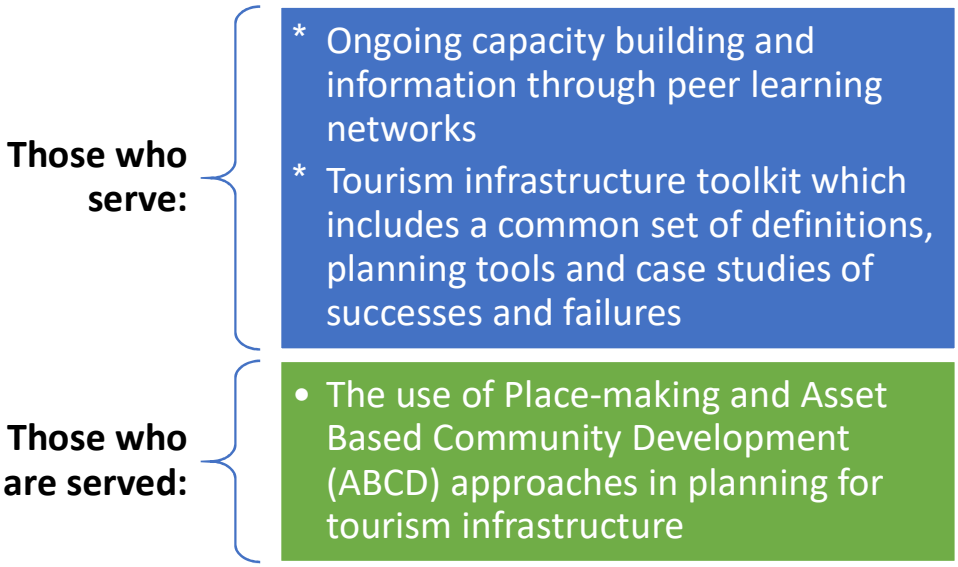


Figure 40 People Element – Important issues for consideration (Source: Researchers own construction)

6. **Assumptions and Definitions** (last block on the bottom): The block spells out the assumptions of the model as well as providing definitions for the building blocks of the model i.e. National Tourism Spatial Development Framework; Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan. The assumptions and definitions are provided below.

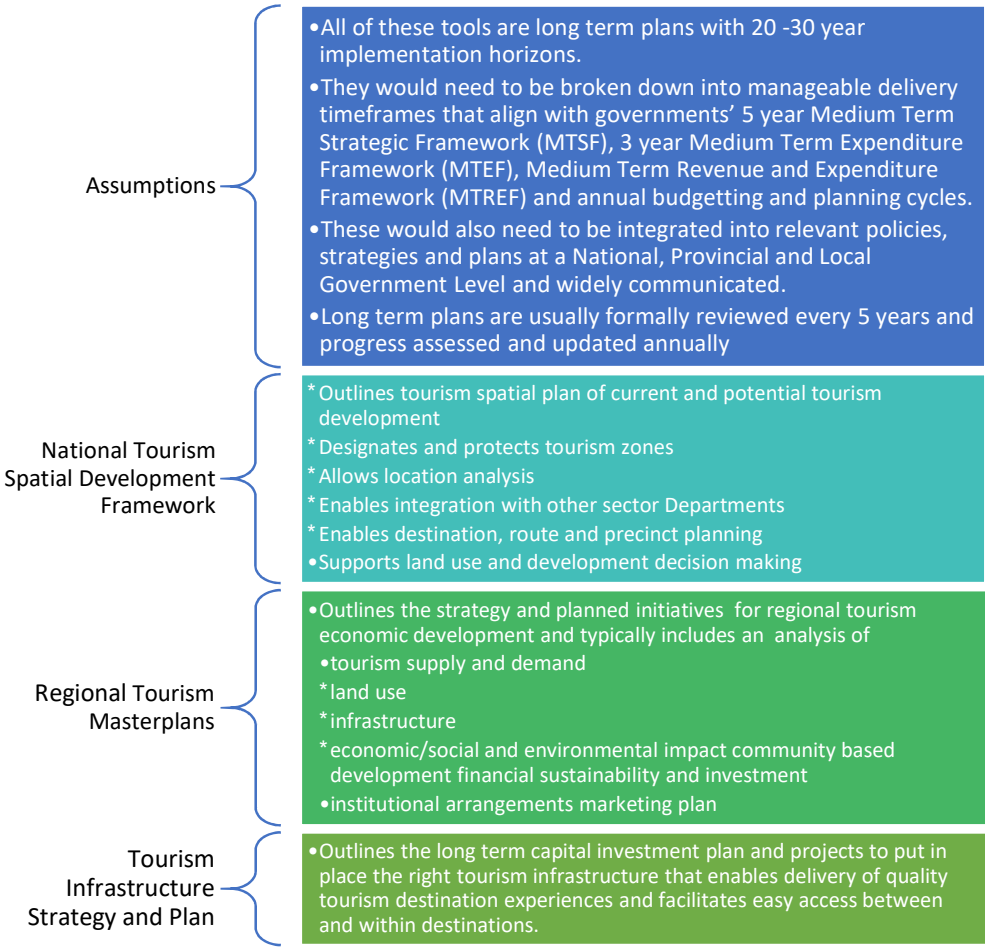


Figure 41 Assumptions and Definitions for the National Spatial Development Framework, Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan (Source: Researchers own construction)

6.3 Some important notes on implementation of the model for integrated tourism infrastructure planning

All of the building blocks i.e. National Tourism Spatial Development Framework; Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan are long-term plans with 20 -30 year implementation horizons. Each of them would need to be broken down into manageable delivery timeframes that align with government's 5 year Medium Term Strategic Framework (MTSF), 3 year Medium Term and Expenditure Framework (MTEF – applicable to National and Provincial

Government) and Medium Term Revenue and Expenditure Framework (MTREF – applicable to Local Government as well as annual budgeting and planning cycles. The integration of the various building blocks and applicable policies, strategies and plans are outlined below.

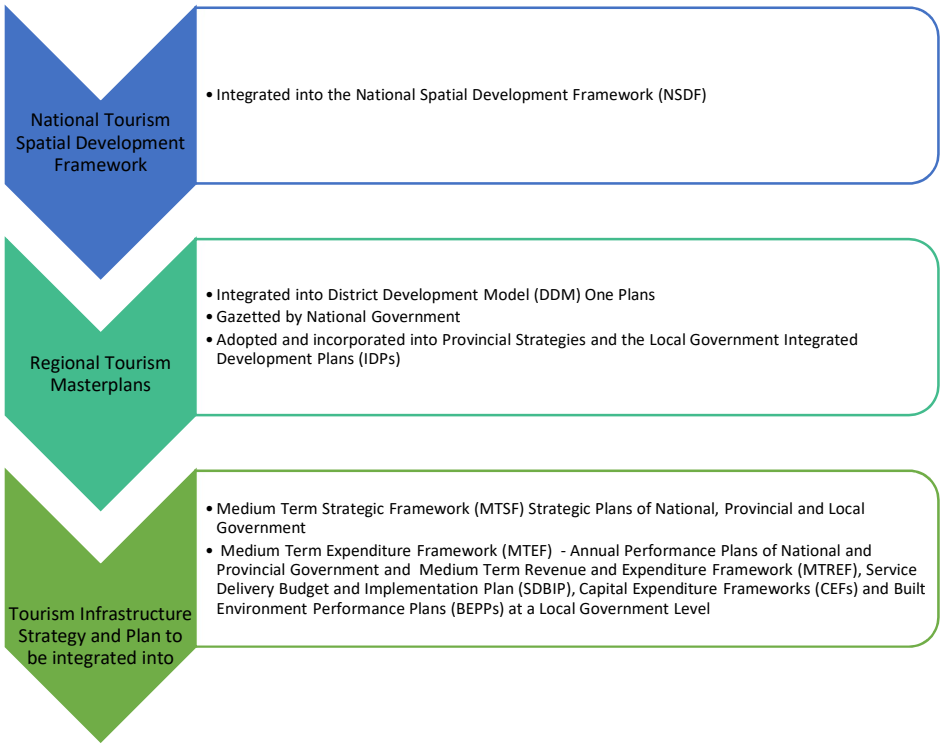


Figure 42 Integration of the various building blocks of the model with applicable policies, strategies and plans

Ideally, National Government will have the central role in the development of all three building blocks in the model, and in monitoring their integration and implementation. In line with the spirit of the Tourism White Paper, the role of National Government is not to dictate the course and direction of tourism infrastructure development to Provincial or Local Government, but rather to work with Provincial and Local Government to ensure that agenda and priority setting at a National level would be informed by the agenda and priority of each Province and Local Authority. Ideally, implementation would largely remain the responsibility of Provincial and Local Government who will be supported by

National Government where required. From a practical perspective, however, these roles and responsibilities will have to be assigned depending on the available skills and capacity at the time of implementing any given element described in the model.

6.4 Conclusion

This chapter presented the proposed model for integrated tourism infrastructure planning for the South African public sector. The next chapter commences with a discussion of the research findings and connects these findings with the existing literature. The chapter also outlines the study contribution and limitations, a set of recommendations and suggestions for future research.

Chapter 7

7 Research outcomes, contribution to knowledge, study limitations, recommendations and suggestions for future research

7.1 Introduction

This chapter connects the main research findings with the existing body of theory. The contribution and limitations of the study are further described. The chapter concludes with recommendations and suggestions for future research.

The aim of this study was to develop and test a model for integrated tourism infrastructure planning in the South African public sector. This study was a qualitative multi-method study. Various methods, such as reviews of documents, key informant interviews, and focus groups were employed. The research also contains the reflections of the researcher who has extensive experience in public sector planning.

The research question explored in this study was: "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the South African public sector?" The research findings confirm the value of the "building blocks"/elements of this model, although only the first two elements, i.e. the National Tourism Spatial Development Framework and Regional Tourism Masterplans could be tested, in theory, in the Karoo Region. Both these elements demonstrate usefulness to an integrated tourism infrastructure planning level. Although the third element, i.e. Tourism Infrastructure Investment Strategy and Plan, was not tested, the contents of the Regional Tourism Masterplans do provide a basis for support of the third element. The importance of the fourth element related to "People" has firmly been established through the research process, however at the time of writing this thesis this element has not yet been

fully resolved in the proposed model for integrated tourism infrastructure planning.

7.2 Research outcomes

The researcher set out to answer this research question: "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the South African public sector?" To reiterate, the model proposes three key elements - a National Tourism Spatial Development Framework; Regional Tourism Masterplans; and a Tourism Infrastructure Strategy and Plan. A People component has also emerged as being significant for the effectiveness of the model. The research discussion section affirms many of the research findings, in particular the importance of the people component in light of the capacity and governance constraints of the current planning system as raised in the literature review section.

The study further confirmed that the model will support the integration of tourism, economic, spatial and infrastructure planning and development. In the long term integrated public sector tourism infrastructure planning in South Africa, should yield greater public sector investment, stimulate greater private sector investment, and ultimately support the growth and competitiveness of the tourism sector. The research was always personal to the researcher who is invested in finding public sector solutions for integrated tourism infrastructure planning. This research is the beginning of a step change towards a rigorous, comprehensive and integrated approach to tourism infrastructure planning that must underpin inclusive and responsive destination development and growth. At the heart of the research process has always been a deep desire to deliver services to the people of South Africa so that they may thrive from tourism development.

There were three specific research objectives in this study. The paragraphs below describe how each of the research objectives were achieved.

1. Specific research objective 1: Undertake a systematic empirical understanding of the current processes used for tourism infrastructure public sector planning in South Africa to identify the integration challenges.

   This objective was achieved through the literature and document review, the 26 key informant interviews and case studies. The research findings are specifically outlined in Chapter 5 and 6 of this thesis. In summary, the research found that the current planning system is fragmented from both a systems (multiple spheres of government and private sector) and people (different skills and capacity levels in both the public and private sector. However, there have been successful attempts, as evidenced in the case studies, of integrated tourism infrastructure planning.

2. Specific research objective 2: Determine the key elements that are required to develop an integrated model for tourism infrastructure planning undertaken by the public sector in South Africa.

   This objective was achieved through the literature and document review, the 26 key informant interviews and case studies. The research findings are specifically outlined in Chapter 5 and 6 of this thesis. There were four key elements required to develop an integrated model that were supported through this research process. To reiterate, these elements are: National Tourism Spatial Development Framework, Regional Tourism Masterplan, Tourism Infrastructure Investment Strategy and Plan and People.

3. Specific research objective 3: Develop and test a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa.

   This objective was achieved through the literature and document review, the 26 key informant interviews, the case studies and the focus groups. The information gathered through the literature and document reviews, the key informant interviews, the case studies and the first two focus groups was utilised to develop the model. This is data collection process and research findings are described in Chapters 4 and 5 of this thesis. The model was tested through an assessment of its application to the Karoo Region and feedback received from the third and final focus group, both as outlined in Section 5.3.4.

The research objectives of this study have therefore been fully achieved.

7.3 An Integration of the research findings with the existing literature

This section is arranged in three parts. The first part deals with the integration of the main research findings on the definitions of tourism infrastructure with the literature. The second part deals with the integration of research findings on the model for integrated tourism infrastructure planning with the literature. The third part summarises the gaps in the existing literature and the contribution of this study to knowledge.

7.3.1 What is tourism infrastructure?

The research findings from the key informant interviews on the definitions of tourism infrastructure were arranged in five themes. The same structure is utilised to present an integration of the research findings with the literature. Broadly, the research findings confirmed that there is no common or consistent definition of tourism infrastructure which informs the Gauteng Provincial Government (2012b).

The research also found that the current definitions of infrastructure do present challenges for integrating tourism infrastructure planning as highlighted by Mistilis (1999). The research findings have confirmed the usefulness of the definition of tourism infrastructure from the Tourism and Transport Forum (2008).

7.3.1.1 Purpose of tourism infrastructure

This theme of definitions in the research findings described tourism infrastructure as a "feeling and experience" of both the tourist and the citizens who use this infrastructure. This finding agrees with several authors who found that infrastructure plays an important role in influencing the tourist's experience (Mo, Howard & Havitz, 1993; Dwyer & Kim, 2003). This finding also supports the research that highlights the positive correlation between tourist satisfaction levels and the quality of tourism infrastructure (Smith, 1994 as cited in Imikan & Ekpo, 2012).

7.3.1.2 State of tourism infrastructure

This theme of definitions in the research findings described tourism infrastructure as being fragmented, generally inadequate, lacking sufficient investment from the public sector with only limited investment from the private sector. In these definitions, low public sector investment in tourism was attributed to the lack of integrated planning and silo sector specific thinking. These definitions also highlighted the need for more public private partnerships in the development of tourism infrastructure. This finding is consistent with the research by Mistilis (1999), Tsekeris (2014), WTTC (2015) and Adu-Ampong (2019), who assert that co-ordinated infrastructure development, which yields integrated policy at a national or regional level, is a critical factor for attracting public and private sector investment. It is therefore critical to identify and address the competing interests within and between sectors.

7.3.1.3 Tourism infrastructure as a system

This definitions in the research findings describe tourism infrastructure as a system. The idea that the system is greater than the sum of its parts is encapsulated in these definitions. The natural environment, built environment, people (who serve and are served by the tourism sector) and relationships between the public and private sectors are all seen as important elements of tourism infrastructure. This finding supports the definition of tourism infrastructure from the Australian Transport and Tourism Forum (2008). In particular the resonance with focus group participants of the definition of "Collaborative Infrastructure" by the Australian Tourism and Transport Forum (2008) is easy to understand as relationships are critical currency in both the tourism and public sector.

7.3.1.4 Tourism infrastructure as an opportunity

This theme of definitions in the research findings described tourism infrastructure as an economic opportunity to unlock the tourism potential, i.e. that the value of tourism infrastructure can only be understood through its social and economic contributions. This finding echoes Watermeyer (2013), who indicates that public infrastructure, which is central to the economy of a country, has little inherent value, but rather creates value through the economic and social activities it supports.

7.3.1.5 Tourism infrastructure as viewed by tourism planners

This theme of definitions in the research findings provides a technical description of tourism infrastructure and supports the importance of academic work in helping tourism planners make sense of the world. The interview participants who provided these descriptions were actively using the models created by Ritchie and Crouch (2003) and Butler (1980), and carefully considered the investment in tourism infrastructure in terms of its economic impact, as highlighted by Watermeyer (2013). This finding also supports Mistilis (1999) who concluded that

when tourism infrastructure public policy remains absent, it can even be detrimental to growth in the sector.

7.3.2 A model for integrated tourism infrastructure in the South African public sector

The research findings from the key informant interviews on the model were arranged in four central organising themes. The same structure is used to present the integration of the research findings with the literature.

7.3.2.1 Tourism as an important and valued economic sector

This research finding suggests that tourism broadly, and tourism infrastructure specifically, would receive more support if the benefits of the sector were widely understood. This finding supports the work being done researchers Wang and Liu (2020) and Nyasha et al. (2021) in quantifying the impact of tourism development on economic growth.

7.3.2.2 Planning principles

This theme describes the need for integrated tourism infrastructure planning to sustain regional economic development and therefore should be based on strong tourism demand analysis that deliberately plans for investment in infrastructure for tourism. The intentional planning for tourism infrastructure supports the work by Gunn (1994) and Inskeep (1991), who both advocated for purposeful planning for tourism development. This research finding is also in agreement with the work of Prideaux (2000) who highlighted that the composition of infrastructure at a tourism destination is often ignored. This research finding also supports Watermeyer and Phillips (2020) and Neuman (2012), who point out that, if infrastructure is not planned and delivered in an efficient and effective manner, it could impede economic growth. This finding is also consistent with Hickford et al. (2019) who highlighted that infrastructure planning is not a core activity but rather incorporated as part of a subset of other planning priorities; although a shared

vision for the delivery of integrated infrastructure planning is seen as important, a shared vision rarely manifests. SAICE (2017) recommend better cooperation between spheres of government and increased private/public sector collaboration. Arts et al. (2016), Malekpour, Brown and de Haan (2015), Neuman (2012) all call for integrated planning and Hall et al. (2013) call for cross-sectoral integration in order to maximise the impact from public sector spend.

7.3.2.3 Definitions and Processes

This theme in the research findings describes the need for the model to provide a clear set of definitions and processes. Two elements viewed as requiring clear definitions were "integrated planning" and "tourism infrastructure". This research finding, in fact, confirms the value of the research study. This finding also supports the opinions of Dredge (1999) and Inskeep (1988), who assert that tourism planners do not provide the language/framework of tourism to be used by other professionals, which provides challenges for the integration of tourism into broader planning. This finding is also supported by McLean (2017) who highlights the need for clear definition and processes for integrating infrastructures.

7.3.2.4 People

This describes both the people who are served by infrastructure delivery and the people who deliver infrastructure. Although the theme of "people" was anticipated, the extent and significance of what was raised by participants was a surprise. The issues raised were twofold. The first issue was about the importance of infrastructure serving the needs of people. The second issue raised was about the needs of people who delivered infrastructure, i.e. public sector officials. The emphasis on people in the findings of this study are less surprising when viewed within the context of the broader literature. This finding has resonance with several authors. McLean (2017; 2018) highlights that although officials know how to regulate and organise individual infrastructure networks there is still a need for

them to learn how to simultaneously co-ordinate and manage multiple systems as an integrated whole. Hickford et al. (2019) also highlight that planners are challenged with managing planning processes and infrastructure providers are challenged with engaging with complex planning frameworks. Further, the continuous professional development of infrastructure planners to enhance their ability to implement integrated infrastructure planning is central in the five principles of good infrastructure as mooted by Hickford et al. (2019) and emphasised by ARUP (2013). This finding is further supported by SAICE (2009; 2011; 2017) which recommends that South Africa should focus on institutional capability and capacity for infrastructure planning, development and maintenance. The same focus is supported by Watermeyer and Phillips (2020). This research finding also goes along with Rogerson (2013), who underscores the vital need for capacity development for tourism planning in local government. Lastly, as Gunn (1994) states, "*Planning is too important to be left to planners*". Gunn (1994) saw tourism planning as involving two critical sets of people, those who plan and those who are planned for. Within this context, Gunn (1994) indicated that the role of the planner is to understand the different agendas of divergent groups, and to bring these groups together, to build consensus on how their agendas could be realised through tourism development.

7.3.3 Contribution of the study to knowledge

7.3.3.1 Knowledge Contribution

The literature review highlighted the lack of a structured manner to integrate infrastructure planning and development (Todes, Karam, Klug and Malaza, 2010) as well as poor linkages between infrastructure planning, spatial planning and capital investments (Watermeyer & Phillips, 2020; Du Plessis, 2014; Harrison & Todes, 2013; Rogerson, 2013). Despite a recognition of the symbiotic relationship between tourism and infrastructure development (Ben-Dalia, Collins-Kreiner &

Churchman, 2013; Beauregard, 1998; Ritchie and Crouch, 1993; Heath, 1993; Dwyer & Kim, 1993) the deliberate planning for tourism infrastructure is notably absent. Although infrastructure integration is desirable, it is complicated to achieve as it involves many different actors, is context specific, and has different planning, governance and ownership frameworks (McLean, 2017; Art et al, 2016).

There are also no clear models for infrastructure integration (McLean, 2017; Neuman, 2012). While there is strong policy and legislation for integrated planning in South Africa, a practical guideline on exactly how to achieve alignment and integration remains elusive (Harrison & Todes, 2013; Todes, Karam, Klug & Malaza 2010; Du Plessis, 2014). The lack of a systematic and consistent guideline for how to achieve integration results in continued fragmented planning and a lack of integration. Importantly, the lack of integrated planning results in misalignment between infrastructure development and capital investment strategies (Du Plessis, 2014). This study contributes to the knowledge on integrated tourism and infrastructure planning and offers a practical model to integrate infrastructure planning, spatial planning and by extension capital investment.

7.3.3.2 Theory contribution

The definitions of public infrastructure have been critiqued for being too narrow and not encompassing aspects related to tourism infrastructure (Mistilis, 1999; Gunn, 1994) thereby creating challenges in addressing the public infrastructure needs for the tourism sector. This study contributes to the theory by offering a definition of tourism infrastructure for use by the South African public sector.

7.3.3.3 Practical contribution

The researcher set out to solve a real life problem to suggest improvements needed to the current system of planning in order to support tourism

infrastructure planning. By far the most valuable practical contribution of this research has been the application of the knowledge gleaned to my work as a tourism policy maker. The research has provided a new appreciation of the value and power of tourism planning. In drawing the links between tourism and infrastructure it is hoped that this research will similarly assist planning by public sector tourism and infrastructure officials in South Africa and elsewhere by offering a model for integrated tourism infrastructure planning. The research also assists both the public and private sector to better understand tourism and infrastructure processes in order for them to better advocate for planning and funding of tourism infrastructure for further development of the tourism sector.

The value of the research is the contribution to the integrated tourism infrastructure planning by the public sector in South Africa. Application of the research is intended to improve integrated tourism infrastructure planning. In the long term, improvements to integrated public sector tourism infrastructure planning should yield greater public sector investment, encourage further private sector investment and ultimately support the growth and competitiveness of the tourism sector.

7.4 Recommendations

Outlined below is a list of five recommendations from this study:

1. The Department of Tourism should develop a National Tourism Spatial Development Framework. This work is the basis of infrastructure spend by all government Departments and Entities. The lack of a national spatial layer for tourism, which should be incorporated into the NSDF, disadvantages infrastructure investment in the tourism sector.
2. A key learning for the researcher through this study has been the critical importance of infrastructure maintenance. With the notable exception of SANParks, other government entities responsible for tourism

infrastructure assets do not have condition assessments (i.e. technical assessments identifying maintenance requirements) for these assets and do not have a systematic or budgeted maintenance plan. It is not possible to manage what one does not fully understand. A key recommendation from this study is that all state entities managing tourism infrastructure assets should complete condition assessments of their infrastructure and budget adequately for infrastructure maintenance.

3. The Department of Tourism should create a Tourism infrastructure toolkit which includes a set of common definitions, planning tools and case studies of successes and failures.
4. The Department of Tourism, working with existing institutions, should develop a capacity-building programme on tourism development to support the professional development of tourism and infrastructure planners at all levels of government. Aligned with this recommendation, a peer-learning network should be scheduled regularly.
5. Elements of tourism development as envisaged by the 1996 Tourism White Paper and current tourism development matters should be included in any future revisions to government policy and legislation.

7.5 Limitations of the study

The study focussed on the South African public sector planning context and therefore its general applicability to other countries and contexts has not been tested. The research proposes a model for integrated tourism infrastructure planning. The model could benefit from the inclusion of further elements, e.g. timelines and processes of planning for individual infrastructure systems (e.g. water and electricity).

The model has been tested in a very limited theoretical manner. Given the long-term nature of infrastructure planning, only two elements of the model, i.e. the National Tourism Spatial Development Framework and Regional Tourism

Masterplans, could be tested theoretically. Both these elements demonstrate usefulness from an integrated tourism infrastructure planning level. Although the third element, i.e. Tourism Infrastructure Investment Strategy, could not be tested, the contents of the regional Masterplans do provide a basis for support of the third element. Testing of the third element, i.e. Tourism Investment Strategy and Plan, which reflects individual project level planning, will be is possible only with the passage of time.

The element of People, i.e. both who plan for tourism infrastructure and those who benefit from tourism infrastructure, has not been fully determined at the time of drafting this thesis. This element has emerged as being important for the model. Future research on this aspect is recommended.

7.6 Suggestions for future research

Outlined below are areas suggested for future research:

1. **Application of this model in other countries and contexts**

   This study developed and tested a model for integrated tourism infrastructure planning for the public sector in South Africa. The application of this model in other countries and contexts has not been tested. The broader application of the model is therefore unknown.

2. **People Element**

   The element of People has emerged as being important for this model. However, at the time of drafting this thesis, this particular element had not been fully resolved. There are two facets for future research. The first facet relates to people who infrastructure is planned for, participatory planning for tourism infrastructure development is an area that requires further research. Despite the requirement of participatory planning in South Africa, meaningful engagement with citizens on tourism infrastructure needs has not been achieved. The model would greatly

benefit from practical guidelines for meaningful engagements. The second facet relates to people who plan tourism infrastructure. Emerging out of this study is the need for further skills development and training for tourism and infrastructure planners. Further, integration is central to successful service delivery in South Africa. However, the public sector performance management system does not recognise or reward individuals who work to achieve integration. Further research on a performance management and development system to incentivise integrated planning in the South African public sector is recommended.

3. The state of tourism infrastructure in South Africa

A complete assessment of the state of tourism infrastructure in South Africa has not been completed. Maintenance emerged as an important learning from the study. A complete assessment of the state of the tourism infrastructure in South Africa would assist with the prioritisation of maintenance needs.

4. The implications of Leiper's (1979) concept of Partial Industrialisation In Tourism (PIIT) for the model on integrated tourism infrastructure planning is an area recommended for future research. The final focus group in this study generated discussion on achieving a balance between supply and demand approaches within the model. The researcher similarly encountered the work of Leiper (1979) when the study was nearing completion. The PIIT offers a perspective that could assist with the prioritisation of tourism infrastructure within the context of diminishing public resources.

5. Further multidisciplinary research

This research study has integrated knowledge from tourism, infrastructure and spatial planning. Further studies on the nature of infrastructure integration challenges in a multi-disciplinary context are suggested. Future research that examines infrastructure planning models in different economic sectors is also suggested.

7.7 Final words

This chapter connected the main research findings with the body of theory. The contribution and limitations of the study have also been described. The chapter concluded with a set of recommendations and suggestions for future research.

While the aim of the research, of developing and testing a model for integrated tourism infrastructure planning in the South African public sector, has been achieved, the task of integrating tourism infrastructure planning in South Africa has only just begun. The research itself is well-timed, as Costa (2020) argues that future tourism planning theory and practice will require models that link economic, spatial and infrastructure planning.

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Appendix 1: Interview Participant Information Sheet



Interview Participant Information Sheet for the research study entitled "A model for integrated tourism infrastructure planning in the South African public sector"

My name is Shamilla Chettiar and I am a registered PhD student at the University of the Witwatersrand. My supervisors for this research are Professor Samuel Laryea and Professor Kevin Wall. My research will develop a model for public sector officials in all spheres of government to use to improve integrated tourism infrastructure planning. The research will suggest improvements to the current tourism infrastructure planning.

The research question that will be explored is "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa? Within public sector planning, tourism is the responsibility of all levels of government. Case studies at local, provincial and national level will be developed in order to understand the entire planning system. The case studies will be utilised to develop a model for integrated tourism infrastructure planning in the South African Public Sector. The model developed will outline a process for integrated tourism infrastructure public sector planning.

As part of this project, I would like to invite you to participate in an interview. The information that you provide through the interview will be used in the development of both the case studies and model for integrated tourism infrastructure planning. The interview is expected to take no longer than 1.5 hours and will be scheduled at your convenience. Some follow up emails or telephone conversations may also be required. Due to the COVID 19 pandemic, it is anticipated that the interview will be conducted using virtual platforms such as Zoom and Team Meeting Rooms. With your permission, I would also like to record the video and audio of this virtual interview.

A total time commitment for your participation in the interview, and follow up email and telephone conversations is anticipated to be no more than three hours. There are no other personal costs to you to participate in this research. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or chose not to answer any questions. The information that you provide will be kept confidential and held securely in password protect files. Your participation in the research will be acknowledged in the final research report. However, if you prefer that your identity be anonymous, then a pseudonym (false name) to represent your participation will be utilised in my final research report. Please also note that it is possible that the information from the interview may be used anonymously after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.

This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you. If you have any concerns or complaints regarding the ethical procedures of this study,

you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,

Researcher: Ms Shamilla Chettiar (email: 9102623N@witsstudent.ac.za; telephone: 082 564 0399)

Supervisors: Prof Samuel Laryea (email: samuel.laryea@wits.ac.za ;telephone: 011 717 7657)
Prof Kevin Wall (email: kevin.wall@up.ac.za)

Appendix 2: Interview Participant Consent Form



Participant Consent Form

Participation in a research study entitled "A model for integrated tourism infrastructure planning in the South African public sector" conducted by Ms Shamilla Chettiar as part of Ph.D. studies at the University of the Witwatersrand

I hereby agree to participate in this research study. I confirm that the research has been explained to me and I understand what my participation will involve.

Please carefully read each of the statements below and tick either the" Yes" or "No" Box

I confirm that I have read and understood the information sheet for the study and have had the opportunity to ask questions	Yes ☐	No ☐
I understand that my participation is voluntary and that I am free to withdraw at any time without providing a reason	Yes ☐	No ☐
I agree to take part in the study	Yes ☐	No ☐
I agree to have the interview audio and video recorded	Yes ☐	No ☐
I agreed to anonymised use of quotes in the research	Yes ☐	No ☐
I agree that the information I provide may be used anonymously after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.	Yes ☐	No ☐

Name of participant Signature Date

Researcher: Signature Date

Appendix 3: Focus Group Participant Information Sheet



Focus Groups Participant Information Sheet for the research study entitled "A model for integrated tourism infrastructure planning in the South African public sector"

My name is Shamilla Chettiar and I am a registered PhD student at the University of the Witwatersrand. My supervisors for this research are Professor Samuel Laryea and Professor Kevin Wall. My research will develop a model for public sector officials in all spheres of government to use to improve integrated tourism infrastructure planning. The research will suggest improvements to the current tourism infrastructure planning.

The research question that will be explored is "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa? Within public sector planning, tourism is the responsibility of all levels of government. Case studies at local, provincial and national level will be developed in order to understand the entire planning system. The case studies will be utilised to develop a model for integrated tourism infrastructure planning in the South African Public Sector. The model developed will outline a process for integrated tourism infrastructure public sector planning.

As part of this project, I would like to invite you to participate in three focus group sessions. The model for integrated tourism infrastructure planning will be presented, discussed and refined through these focus group sessions. The focus group session will involve other participants who have agreed to be a part of this research. Confidentiality and anonymity of the focus groups therefore cannot be guaranteed as you may already know or be known to other participants. Three focus group sessions of not more than two hours each are expected to take place, initially planned over a period of two months. Some follow up emails or telephone conversations may also be required. Due to the COVID 19 pandemic, it is anticipated that the focus group sessions will be conducted using virtual platforms such as Zoom and Team Meeting Rooms. With your permission, I would also like to record the video and audio of these virtual focus group sessions.

A total time commitment for your participation in the focus groups, and follow up email and telephone conversations is anticipated to be no more than one day spread over a two month period. There are no other personal costs to you to participate in this research. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or chose not to answer any questions. Your participation in the research will be acknowledged in the final research report. However, if you prefer that your identity be anonymous, then a pseudonym (false name) to represent your participation will be utilised in my final research report. As indicated above, confidentiality and anonymity of the focus groups cannot be guaranteed as you may already know or be known to other participants. Please also note that it is possible that the information from the interview may be used anonymously after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.

This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,

Researcher: Ms Shamilla Chettiar (email: 9102623N@witsstudent.ac.za; telephone: 082 564 0399)

Supervisors: Prof Samuel Laryea (email: samuel.laryea@wits.ac.za ;telephone: 011 717 7657)
Prof Kevin Wall (email: kevin.wall@up.ac.za)

Appendix 4: Focus Group Participant Consent Form



Participant Consent Form

Participation in a research study entitled "A model for integrated tourism infrastructure planning in the South African public sector" conducted by Ms Shamilla Chettiar as part of Ph.D. studies at the University of the Witwatersrand

I hereby agree to participate in this research study. I confirm that the research has been explained to me and I understand what my participation will involve.

Please carefully read each of the statements below and tick either the" Yes" or "No" Box

I confirm that I have read and understood the information sheet for the study and have had the opportunity to ask questions	Yes ☐	No ☐
I understand that my participation is voluntary and that I am free to withdraw at any time without providing a reason	Yes ☐	No ☐
I agree to take part in the study	Yes ☐	No ☐
I agree to have the focus group audio and video recorded	Yes ☐	No ☐
I agreed to anonymised use of quotes in the research	Yes ☐	No ☐
I agree that the information I provide may be used anonymously after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.	Yes ☐	No ☐

Name of participant: Signature Date

Researcher: Signature Date

Appendix 5: Interview and Focus Group Participant Information Sheet



Interview and Focus Groups Participant Information Sheet for the research study entitled "A model for integrated tourism infrastructure planning in the South African public sector"

My name is Shamilla Chettiar and I am a registered PhD student at the University of the Witwatersrand. My supervisors for this research are Professor Samuel Laryea and Professor Kevin Wall. My research will develop a model for public sector officials in all spheres of government to use to improve integrated tourism infrastructure planning. The research will suggest improvements to the current tourism infrastructure planning.

The research question that will be explored is "What are the key elements that are required to develop a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa? Within public sector planning, tourism is the responsibility of all levels of government. Case studies at local, provincial and national level will be developed in order to understand the entire planning system. The case studies will be utilised to develop a model for integrated tourism infrastructure planning in the South African Public Sector. The model developed will outline a process for integrated tourism infrastructure public sector planning.

As part of this project, I would like to invite you to participate in an interview and three follow-up focus group sessions. Due to the COVID 19 pandemic, it is anticipated that the interview and focus group sessions will be conducted using virtual platforms such as Zoom and Team Meeting Rooms. With your permission, I would also like to record the video and audio of these virtual interview and focus group sessions.

Interview
The information that you provide through the interview will be used in the development of both the case studies and model for integrated tourism infrastructure planning. The interview is expected to take no longer than 1.5 hours and will be scheduled at your convenience. Some follow up emails or telephone conversations may also be required. A total time commitment for your participation in the interview, and follow up email and telephone conversations is anticipated to be no more than three hours. The information that you provide in the interview will be kept confidential and held securely in password protect files.

Focus Groups
The model for integrated tourism infrastructure planning will be presented, discussed and refined through these focus group sessions. The focus group session will involve other participants who have agreed to be a part of this research. Confidentiality and anonymity of the focus groups therefore cannot be guaranteed as you may already know or be known to other participants. Three focus group sessions of not more than two hours each are expected to take place, initially planned over a period of two months. Some follow up emails or telephone conversations may also be required. A total time commitment for your participation in the focus groups, and follow up email and telephone conversations is anticipated to be no more than one day spread over a two month period.

There are no other personal costs to you to participate in this research. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or chose not to answer any questions. Your participation in the research will be acknowledged in the final research report. However, if you prefer that your identity be anonymous, then a pseudonym (false name) to represent your participation will be utilised in my final research report. As indicated above, confidentiality and anonymity of the focus groups cannot be guaranteed as you may already know or be known to other participants. Please also note that it is possible that the information from the interview may be used anonymously after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.

This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,

Researcher: Ms Shamilla Chettiar (email: 9102623N@witsstudent.ac.za; telephone: 082 564 0399)

Supervisors: Prof Samuel Laryea (email: samuel.laryea@wits.ac.za; telephone: 011 717 7657)
Prof Kevin Wall (email: kevin.wall@up.ac.za)

Appendix 6: Interview and Focus Group Participant Consent Form



Participant Consent Form

Participation in a research study entitled "A model for integrated tourism infrastructure planning in the South African public sector" conducted by Ms Shamilla Chettiar as part of Ph.D. studies at the University of the Witwatersrand

I hereby agree to participate in this research study. I confirm that the research has been explained to me and I understand what my participation will involve.

Please carefully read each of the statements below and tick either the" Yes" or "No" Box

I confirm that I have read and understood the information sheet for the study and have had the opportunity to ask questions	Yes ☐	No ☐
I understand that my participation is voluntary and that I am free to withdraw at any time without providing a reason	Yes ☐	No ☐
I agree to take part in the study	Yes ☐	No ☐
I agree to have the interview and focus group audio and video recorded	Yes ☐	No ☐
I agreed to anonymised use of quotes in the research	Yes ☐	No ☐
I agree that the information I provide may be used anonymously after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.	Yes ☐	No ☐

Name of participant Signature Date

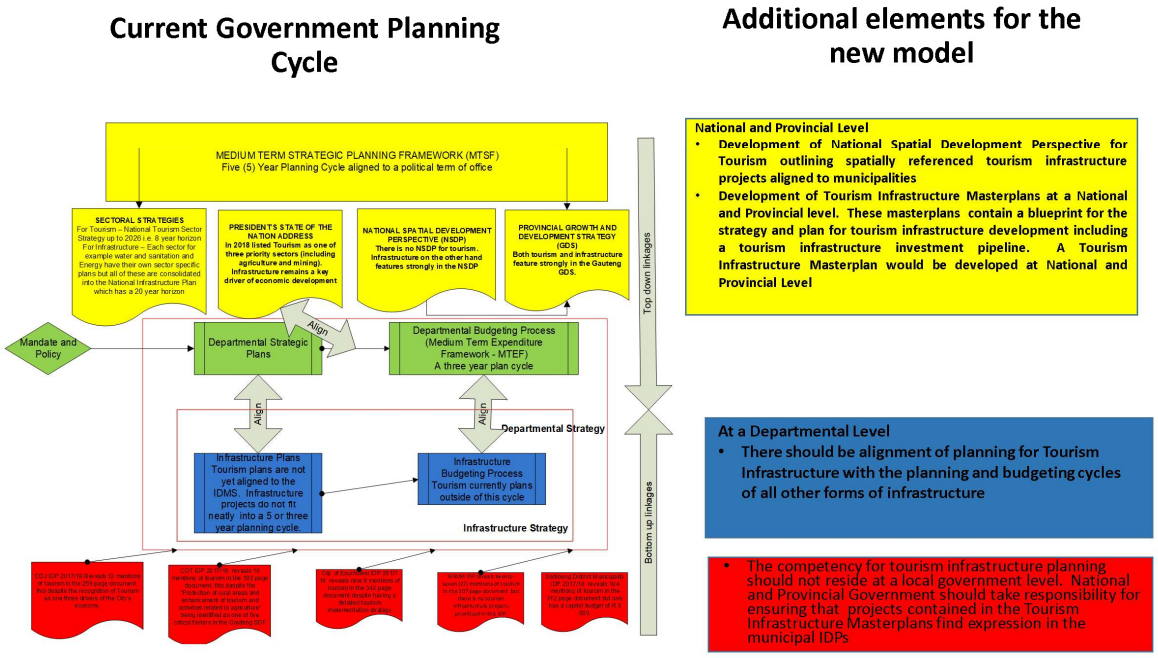
Researcher: Shamilla Chettiar Signature Date

Appendix 7: Questions for the semi-structured key informant interviews

Thank you for taking the time to meet with me. The interview should not take more than 1.5 hours. The research study aims to develop and test a model for integrated tourism infrastructure planning undertaken by the public sector in South Africa. Please can you confirm your willingness to participate in this research by signing the attached consent form. I have a few questions for you and depending on your responses will ask follow up questions.

1. What is your view of tourism infrastructure?
2. How is tourism infrastructure planning undertaken at the moment?
3. How would a tourism spatial plan improve tourism infrastructure planning?
4. How would a tourism infrastructure investment masterplan improve tourism infrastructure planning?
5. Do Municipal Capital Expenditure Frameworks (CEFs) i.e. long term infrastructure investment plans and Metropolitan Municipalities Built Environment Performance Plans (BEPP) sufficiently cater for integrated tourism infrastructure planning? How can these be improved?
6. What are some of the challenges for integrated tourism infrastructure planning?
7. What are your suggestion for improving integrated tourism infrastructure planning?
8. Once the initial responses are provided, the researcher will share the attached diagram and ask the respondent to share their views on the accuracy of the current model and the proposed changes as outlined in the diagram.

Diagram shared with key informant interview participants which provides a graphic representation of the current status of the tourism and infrastructure planning system for Gauteng, South Africa (adapted from the South African Public Sector Infrastructure Planning Cycle from Republic of South Africa – National Treasury 2006) (Figure on the left hand side) and the researchers view of additional elements required for an integrated model for tourism infrastructure planning.



Appendix 8: Research Ethics Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Chettiar

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H20/07/06**
PROJECT TITLE	A model for integrated tourism infrastructure planning in the South African public sector
INVESTIGATOR(S)	Ms S Chettiar
SCHOOL/DEPARTMENT	Construction Management and Economics/
DATE CONSIDERED	24 July 2020
DECISION OF THE COMMITTEE	Approved Risk Level: Minimal
EXPIRY DATE	28 September 2023

DATE 29 September 2020 **CHAIRPERSON** J. Knight

(Professor J Knight)

cc: Supervisor : Prof Samuel Laryea and Prof Kevin Wall

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Chettiar
Signature

30 / 09 / 2020
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix 9: Letter of consent from the Department of Tourism

TD14

tourism

Department:
Tourism
REPUBLIC OF SOUTH AFRICA

Private Bag X424, Pretoria, 0001, Tourism House, 17 Trevenna Street, Sunnyside, Pretoria, 0002
Tel: +27 (0)12 444 6000, Fax: +27 (0)12 444 7000, Call Centre: 0860 121 929, www.tourism.gov.za

Enquiries: Ms A Potgieter
Telephone: 012 444 6140
Fax: 012 444 7000
E-mail: apotgieter@tourism.gov.za

Ms S Chettiar
Deputy Director-General: Destination Development

Dear Ms Chettiar

PERMISSION TO CONDUCT RESEARCH IN THE DEPARTMENT OF TOURISM

It is a pleasure to inform you that the Department of Tourism hereby grants permission for you to conduct research for your coursework titled: A model for integrated tourism infrastructure planning in the South African public sector.

It is expected that the final outcomes of the study are made available to the department, through the Deputy Director-General: Corporate Management.

Compliance with POPI is furthermore required, prior to publication.

Sincerely,

Director-General
Signed by: Ms A Potgieter
Capacity: Director: HR Utilisation and Employee Health and Wellness
Date: 7 August 2020

8 Appendix 10: Letter of consent from the South African National Parks (SANParks)



To develop, expand, manage and promote a system of sustainable national parks that represent biodiversity and heritage assets, through innovation and best practice for the just and equitable benefit of current and future generations.

South African NATIONAL PARKS

Ref 14/1/2/3

19 June 2020

LETTER GRANTING PERMISSION FOR RESEACH

Permission to utilise the South African National Parks (SANParks) as a case study in Ph.D.Research

This letter seeks to grant permission to Ms Shamilla Chettiar to conduct her Research Proposal Abstract ***"A model for integrated tourism infrastructure planning in the South African public sector"***

- The research will be purely for academic purposes and no information collected will be used for other purposes other those indicated in the research template;
- The researcher will provide any reports or feedback to the section in case there is need;
- No confidential information shall be released to outsiders;
- The researcher will remain professional and conduct her research in an ethical manner.

SANParks wishes Ms Chettiar all the best in her research studies.

Yours sincerely

Fundisile Mketeni
CHIEF EXECUTIVE OFFICER
Date: 19 JUNE 2020

c.c. Hapiloe Sello: ME Tourism Development and Marketing

addo elephant
agulhas
IAI-IAis / richtersveld
augrabies
bontebok
camdeboo
garden route
golden gate highlands
groenkloof
karoo
kgalakgadi transfrontier
kruger
mapungubwe
marakele
mokala
mountain zebra
namaqua
table mountain
tankwa karoo
west coast

643 Leyds Street
Muckleneuk
Pretoria

PO Box 787
Pretoria
0001

Tel: 012 426 5000
Fax: 012 343 0905

Central reservations: 012 428 9111
reservations@sanparks.org
www.sanparks.org

9 Appendix 11: Letter of consent from the National Treasury



national treasury

Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Enquiries : Alfred Tau
Telephone : (012) 315-5455
Email : Alfred.Tau@Treasury.gov.za

Ms S Chettiar
Construction Management and Economics Department
University of the Witwatersrand
JOHANNESBURG

Dear Ms Chettiar

PERMISSION TO CONDUCT RESEARCH WITHIN NATIONAL TREASURY

The National Treasury acknowledges your letter requesting permission to conduct research within National Treasury and are pleased to confirm that your request has been granted. Mr Tarafara (Pule) Setai within the Inter-Governmental Relations Division has been recommended as the official that will assist you to collate the information required for your research.

While undertaking research at the National Treasury, the following terms and conditions apply:

- You are expected to follow reasonable instructions in relation to the terms of the right of access;
- You are required to co-operate with the National Treasury in discharging its duties under the Health and Safety Act and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while in the National Treasury premises;
- You must observe the same standards of care and propriety in dealing with staff, visitors, equipment and you must act appropriately, responsibly and professionally at all times;
- All information you have gathered remains secure and *strictly confidential* at all times;
- Ensure that you understand and comply with the requirements of the National Treasury Code of Practice and the Data Protection Act; and
- Furthermore, you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

The department may terminate your right to conduct a research at any time either by giving a written notice to you or immediately without any notice if you are in breach of any of the terms and conditions described in this letter, or if you commit any act that National Treasury reasonably consider to amount to serious misconduct, or to be disruptive and / or prejudicial to the interests and / or business of the National Treasury.

You are also requested to note that upon completion of your research, you are expected to share your findings and recommendations with the department for lessons learned.

Please contact Mr Tarafara Setai, Chief Director: Provincial and Local Government Infrastructure within the Inter-Governmental Division (IGR) on (012) 315 5777 or via E-mail at Tarafara.Setai@Treasury.gov.za to assist with further arrangements and coordination of information required.

Yours sincerely

— II —
LAURA MSEME
ACTING HEAD: OFFICE OF THE DIRECTOR-GENERAL
DATE: 14-4-2021

10 Appendix 12: Letter of consent from the South African Local Government Association (SALGA)

Enquiries: Khalil Mullagie
Tel: 021 446 9800
Fax: 021 418 2709
Mobile: 082 883 8337
E-mail: kmullagie@salga.co.za

SOUTH AFRICAN LOCAL GOVERNMENT ASSOCIATION
SALGA
Inspiring service delivery

Ms Shamilla Chettiar
Email: 9102623N@students.wits.ac.za

Dear Ms Chettiar

Request for permission to utilise the Karoo Region STR as a case study for the research study entitled "A model for integrated tourism infrastructure planning in the South African public sector"

Your letter dated 22 July 2021 has reference. Thank you for your interest in the Karoo Region STR.

I am happy to confirm that permission is granted for you to utilise the Karoo Region STR as a case study for your research. It is expected that the:

- The research will be conducted in an ethical and professional manner
- No confidential information will be released to outsiders
- Researcher will provide a copy of the case study report to SALGA

I wish you well in your research journey and look forward to seeing the outcomes of the Karoo Region STR in particular.

Yours sincerely,

KHALIL MULLAGIE
South African Local Government Association (SALGA)
Provincial Director of Operations
Western Cape

Page 1 of 1

TEL: 012 369 8000 | FAX: 012 369 8001
PHYSICAL: Block B, Menlyn Corporate Park, 175 Corobay Ave, Waterkloof Glen Ext 11, PRETORIA 0181
POSTAL: PO Box 2094, PRETORIA 0001
www.salga.org.za