

## A Model for Integrated Tourism Infrastructure Planning in the South African Public Sector

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### Abstract

Tourism infrastructure is considered critical for tourism growth and destination competitiveness. 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. Private sector investment in tourism infrastructure usually follows public sector investment. This paper presents the results of a qualitative, multimethod study. 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 study proposes three key elements of the model - 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 effectiveness of the model. The study further confirmed that the model will support the integration of tourism, economic, spatial and infrastructure planning and development. Application of this research is intended to integrate public sector tourism infrastructure planning in South Africa which in the long term should yield greater public sector investment, stimulate greater private sector investment, and ultimately support the growth and competitiveness of the tourism sector.

**Keywords:** Tourism infrastructure; public sector; South Africa; planning; model

### Introduction

As tourism spans across 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. 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 serves a purely tourism purpose e.g. a hotel. This is mainly related to budgetary constraints. The annual National Tourism budget available for infrastructure on average is approximately R 200 million for tourism infrastructure priorities across South Africa (Department of Tourism, 2021). 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.

This study proposes a model for integrated tourism infrastructure planning which is intended to address this challenge. This paper reports on the results of the study, including the proposed model. The definition of tourism infrastructure was one of the key concepts explored in the study. Adapting the definition of the Australian Transport and Tourism Forum (2008), research participants proposed the following definition of tourism infrastructure for South Africa: “The supply chain of leisure, business, natural, cultural, enabling and collaborative infrastructure that helps to create a tourism destination”. This definition is further elaborated upon in the results section. This paper is organised in three sections. Firstly, the literature review presents existing insights on the research topic from scholarly work on tourism, economics, infrastructure and planning. Secondly, the research method and results, including the model itself, are presented and discussed. Thirdly, the limitations of the study and areas for future research are outlined.

## **Literature review**

### ***Tourism planning***

Tourism has expanded as a spontaneous rather than planned activity (Tosun & Jenkins, 1998; Kerimoglu et al., 2013; Costa, 2020). Until the beginning of the 1900’s, infrastructure planning for leisure travel was incorporated into mainstream planning as tourism facilities and infrastructure was limited to a small number of amenities, restaurants and accommodation facilities (Costa, 2020). Tourism planning emerged out of necessity 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; 2020; Dredge, 1999; Neuman & Smith, 2010).

Gunn (1977) remains a seminal text on tourism planning. He concluded that tourism has been dominated by a philosophy of promotion or in current terms marketing. 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 the role of tourism planning is to match tourism supply to demand.

Inskeep (1991) supported Gunn’s view and included tourism policy, spatial planning, transport, facilities and services organisational structure, legislation, investment policy and marketing strategy amongst the elements of tourism planning. Tourism planning is therefore a much broader process with infrastructure planning being but one component of this process. Smith (1993) was amongst the first to develop a model which recognised the importance of infrastructure for the tourism product. Despite the progression of thinking, tourism planning still does not explicitly plan for tourism infrastructure. 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 impacts 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). This recommendation is relevant to the South African context.

### ***Tourism, infrastructure and the economy***

An important 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; World Travel and Tourism Council (WTTC), 2015). Tourism growth leads to investments in privately and publicly owned infrastructure, such as

the development of accommodation, roads and air transportation, which in turn benefits other economic sectors and citizens (Ben-Dalia et al., 2013; WTTC, 2015). Conversely, tourism development would not be possible without infrastructure like roads, sanitation, harbours, portable water, electricity, safety services, hospitals, communication and accommodation (Kim, 2000 as cited in Imikan & Ekpo, 2012).

Some studies show that basic public infrastructure development in mature tourism destinations, does not match the pace and scale required to support tourism expansion (Santos, Ferreira & Costa, 2014). This hinders tourism competitiveness 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 (Crouch & Ritchie, 2003). Special emphasis on tourism infrastructure is necessary given its role in influencing the tourist's experience as well as providing business opportunities (Dwyer & Kim, 2003; Mo et al., 1993; Santos et al., 2014). There is a positive correlation between tourist satisfaction levels and the quality of infrastructure in a tourism area (Ritchie & Crouch, 2000; Smith, 1994). Several authors (see Hassan & Burns 2014; Seetanah et al., 2011; Sharma & Bansal, 2010) agree that the construction of infrastructure and service facilities are essential to development in the tourism industry. 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 the satisfaction levels of a tourist and by implication economic growth.

In the broader economic literature, it is widely accepted that infrastructure enables economic growth (Duran-Fernandez & Santos, 2014; Schürenberg-Frosch, 2014). The converse is also true, the lack of infrastructure inhibits economic growth (Ehlers, 2014; Gaal & Afrah, 2017). Calderon et al. (2018) concur that infrastructure development can help to reduce poverty and should become a priority for Africa. In all dimensions of infrastructure performance, Sub-Saharan Africa ranks the lowest of all developing regions. Calderon et al. (2018) indicate that public sector funding is insufficient to address the large quality, quantity and access gaps in infrastructure. An improvement in the efficiency of public sector infrastructure spend in order to realise multiplier effects of investment and economic growth is therefore recommended (Calderon et al., 2018).

Wang and Liu (2020) examined the relationship between tourism competitiveness and economic growth and confirmed the significance of the tourism sector to economic growth in developing countries. They found that ICT, port and road infrastructure as well as tourism safety contributed significantly to tourism competitiveness. Conversely it was also found that in developing countries with low economic growth the lack of investment in communication, airport roads and other infrastructure hindered tourism competitiveness. (Wang & Liu, 2020). Nyasha et al. (2021) recommended further investment in tourism infrastructure development in Sub-Saharan Africa as it firstly grows the tourism sector and secondly contributes to the development of other economic sectors e.g. transport.

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. Public infrastructure investment policy is critical to informing infrastructure investment (Tsekeris, 2014). There is a positive correlation between public sector spend and private sector investment, given limited public funds it is critical that these are used to leverage private sector investment (Wong & Webb, 2014: 695).

Although the critical role that infrastructure plays to economic growth is widely accepted by governments, it has been argued that government policies often inhibit private sector investment into tourism infrastructure (Mistillis, 1999; Tsekeris, 2014). Government is

perceived by the Private Sector as lacking discipline in decision making, having too many different layers of government involved in decision making and not adhering to deadlines (Mistillis, 1999). These issues have a detrimental effect on leveraging private sector involvement from public sector infrastructure spend. This observation in the literature is borne out in South Africa as the Department of National Treasury (Republic of South Africa, 2016) indicates that in recent years the number of Public Private Partnerships (PPPs) has declined. One reason cited for this decline is the delays and cancellations of various public sector projects often as a result of the increasing difficulty of raising long-term debt financing (for the public sector partner) at affordable rates.

The South African National Development Plan (NDP) recognises the importance of public infrastructure (energy, water and transport) in enabling economic growth (Watermeyer & Phillips, 2020). However, Watermeyer and Phillips (2020) point out that if infrastructure is not planned and delivered in an efficient and effective manner then 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 (Consulting Engineers South Africa (CESA), 2018 as cited in Watermeyer and Phillips, 2020). The public sector spent R 3 trillion between 1998/99 and 2017/18 on new infrastructure and the maintenance of existing infrastructure (Watermeyer & Phillips, 2020). However, since 2017 there has been a reduction of R 303 billion in public infrastructure spend. Underspending on capital budgets is also a challenge in the public sector. The consequence of public sector capital underspend is evidenced in the Infrastructure Report Card (IRC) where South Africa earned a D+ overall on the state of infrastructure in ten sectors (South African Institution of Civil Engineers (SAICE), 2017). This grade indicates infrastructure is 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.

There are several practical examples of the impact of failing/failed infrastructure on tourism in South Africa. The lack of maintenance of the water sanitation infrastructure which resulted in sewage pollution of the Vaal River impacted on both current and future tourism activities, threatening amongst others a revenue of R1.2 billion per annum from bait and fly fishing (SAHRC, 2021) and reducing the attractiveness of investment for the R11bn River City, a mixed-use development comprising of residential, commercial and tourism components (Blom, 2018). 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) reported that raw sewage had leaked into Durban harbour due to damage caused to the largest pumping station as result of load-shedding implement 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. Tourism in the City of Cape Town has similarly been impacted by water shortages, in this instance the severe drought of 2015 and 2018 which will be used here as a proxy for 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). Dube et al. (2020) surmise that tourists were afraid to visit the City due to reports of water shortages, in tourism perception is reality. The supply of reliable energy has been brought sharply to the fore with South Africans experiencing regular planned (load shedding) and unplanned power outages. Botha (2019) reported on the impact of “load shedding” on

restaurants in the Nelson Mandela Bay Metropolitan Municipality with the impacts on operations (80%); equipment (60%); costs (53); security (47%) and staff (33%). The greatest impact on operations emphasises the cumulative impact of loadshedding on the other four factors. Inadequate capacity and budgets for maintenance of infrastructure and the resultant failures in infrastructure have massive implications for the economy broadly and for tourism specifically (Giddy et al., 2022; SAICE, 2017). It is difficult for tourists to return to destinations in which they have had negative experiences.

### *Tourism models*

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, these models have shaped the framing and solutions for tourism destination planning and policy problems.

Bazargani and Kiliç (2021) revealed that TDC 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 (Bazargani & Kiliç, 2021). 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, 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). Bazargani & Kiliç's (2021) study strongly suggests 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. 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 make 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).

Tourism in South Africa has not yet achieved maturity. Provinces like Gauteng and the Western Cape that have well developed tourism infrastructure can now have the private sector take over the role of tourism infrastructure investment. However, in other Provinces 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. TALC and TDC serve as useful conceptual frameworks and are helpful in understanding a country's position (Kubickova & Martin, 2020) and can be used to inform strategies and actions to improve destination competitiveness (Bazargani & Kiliç's, 2021). While models of the TALC and TDC have continued to shape the trajectory of tourism research, 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.

### *The South African context*

The South African Constitution identifies infrastructure and tourism as shared functions between all spheres of government (Government of South Africa, 1996). This makes for a very complex policy and planning process. 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 an important 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 also have responsibility for “cultural management”. Public Works is shared between Provincial and National government while the local sphere of government 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 also concurrent functions between all government spheres.

In South Africa, the Medium-Term Strategic Planning Framework (MTSF) which outlines government’s strategic direction is a five year planning cycle while the Medium Term Expenditure Framework (MTEF) which outlines indicative budgets is a three year planning cycle. Although both tourism and infrastructure planners work within the MTSF and MTEF planning cycle, a key challenge is that planning takes place independently of each other making it very challenging to integrate tourism and infrastructure planning. At a local government sphere, the integration of tourism into the five year Integrated Development Plans (IDPs) are impacted upon by both the local authority officials’ abilities to define and defend tourism’s importance and the communities understanding of and support for tourism as an economic driver.

Over the past two decades, the South African government has spent over R2.5 trillion on infrastructure, or an annual average of 6% of GDP (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 18 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 5 (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, 2015). There are few 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, integrated planning is key to maximising the use of public spend on infrastructure.

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 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. 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). In order for the tourism sector to thrive the integration of tourism infrastructure needs into planning and development in other sectors is critical.

## **Research method**

This study was a qualitative multi-method study which utilised secondary resources, reviews of documents, key informant interviews, focus groups, case studies and 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 primary research data for this qualitative research study was collected through 25 key informant interviews and three focus groups (with a total number of 21 participants). Research participants were mainly involved in either the tourism or infrastructure sectors. However, some participants had neither tourism nor infrastructure experience but were engaged in wider public planning processes. Participants were drawn from both the private and public sectors. Public sector participants represented a cross section of experience from various government departments and agencies at a national, provincial and local sphere. Most participants in the key informant interviews also participated in the focus groups. However, there were nine (9) participants who only participated in the key informant interviews and three (3) participants who only participated in the focus groups. The sampling strategy for participants was borne out of the researcher’s own experience that the system of tourism and infrastructure planning in South Africa is comprised of both public and private sector players. 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.

## **Results and discussion**

### ***Key informant interviews***

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 for the development of a model on integrated tourism infrastructure planning. Once participants had expressed their own perspectives on these various issues, the researcher shared Figure 1, briefly expressed her own perspective of the current system of planning and suggested elements for a model and invited inputs from the key informant interview participants. Information from the key informant interviews was used to develop the model for integrated tourism infrastructure planning.

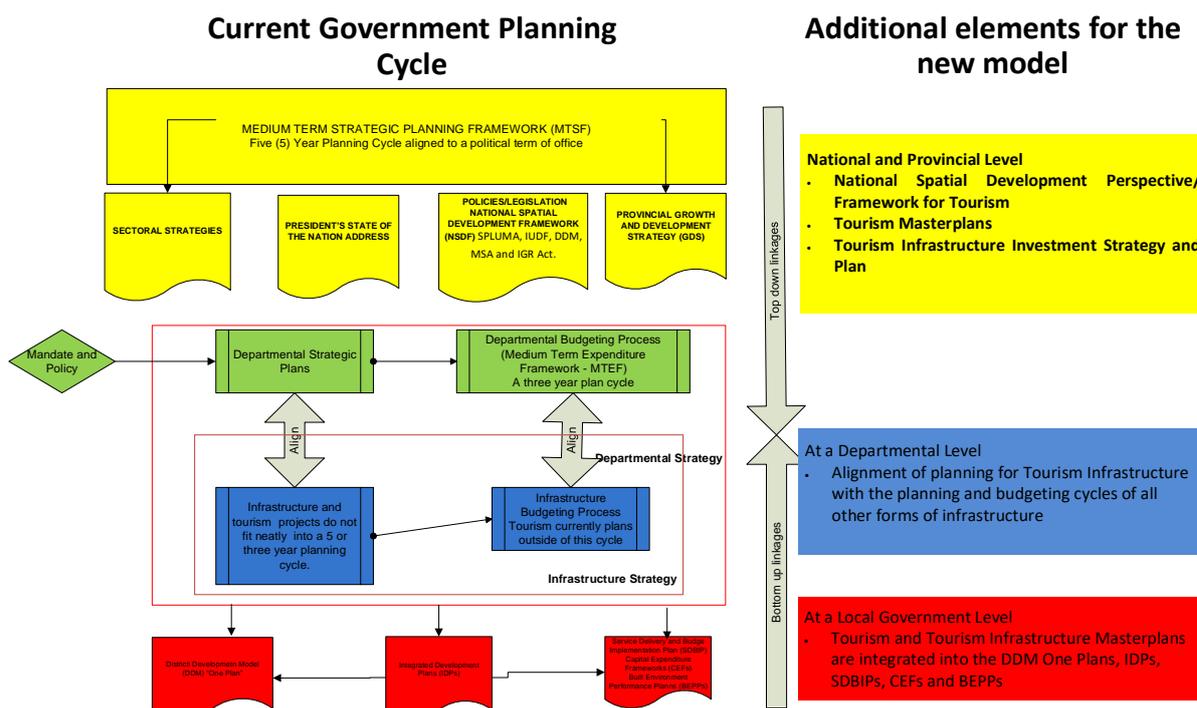


Figure 1. Diagram shared with key informant interview participants sharing the researcher's perspective on the current government planning cycle and suggested elements for a new model

The researcher suggested the incorporation of 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 map current developments, outline the strategy and planned initiatives for regional tourism economic development, importantly tourism regions are not defined by political boundaries.
3. Tourism Infrastructure Investment Strategy and Plan which would outline the long term capital investment and maintenance plan and projects for tourism infrastructure.

Outlined below is a summary of the views expressed by the interview participants on these three elements.

#### *National tourism spatial development framework*

Overall, there was consensus and enthusiasm for the inclusion of this element in a model. However, it is worth noting that there was a single interviewee who was not enthusiastic about spatial planning and expressed a view that it was not possible to reverse Apartheid spatial planning and that spatial planning should not be goal in itself. 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 another participant suggesting that every Department should have an economic mandate and that tourism and the Local Economic Development (LED) should be linked. Although the interviewee was not enthusiastic about spatial planning, the usefulness of spatial planning as a tool was not discarded. All other interviewees expressed 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 spheres of government and prioritisation of tourism. 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. In addition to expressing enthusiasm for a National Tourism Spatial Development Framework, interviewees also concurred that planning should be long term in nature and should be aligned with regional economic planning. Interviewees also pointed out that a tourism spatial plan would only assist tourism infrastructure planning if tourism was properly integrated into the national spatial perspective rather than a stand-alone document. The importance of people i.e. both people who plan and for whom planning is done was also emphasised.

### *Regional tourism masterplan*

Most participants had never experienced or participated in regional tourism master planning 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 align to political boundaries and that the current government system of planning which is aligned to political boundaries hampers both tourism and economic growth. Interviewees also offered advice and caution on tourism master plans 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 into the implementation process and the lack of collective ownership of the elements of the masterplan. The importance of people in defining the masterplan was also emphasised. 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 support that with regards to 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.

### *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. 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.

### *Focus groups*

- (1) The first two focus groups were designed to present to and elicit further feedback from the focus group participants on a synthesis of information provided in the key informant interviews. Participant inputs gathered through these focus groups was used to refine the model for integrated tourism infrastructure planning in the South African public sector.
- (2) An extensive review of literature and documents was then completed to test the model's practical application for integrated tourism infrastructure planning in the Karoo Region of South Africa. This region was deliberately selected as it 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; thirteen District Municipalities; one Metropolitan Municipality and thirty-six Local

Municipalities. Secondly, the Karoo was officially proclaimed as a region on the 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 significantly contribute to economic growth and development

- (3) The third focus group was designed to present and elicit participants inputs on the researchers 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.

The Mind Map in Figure 2 provides a synthesised thematic overview of key informant interview participant’s thoughts on elements for a model for integrated tourism infrastructure planning in the South African public sector. This Mind Map was presented and discussed in the first two focus groups in order to establish consensus on the elements required for a model for integrated tourism infrastructure planning.

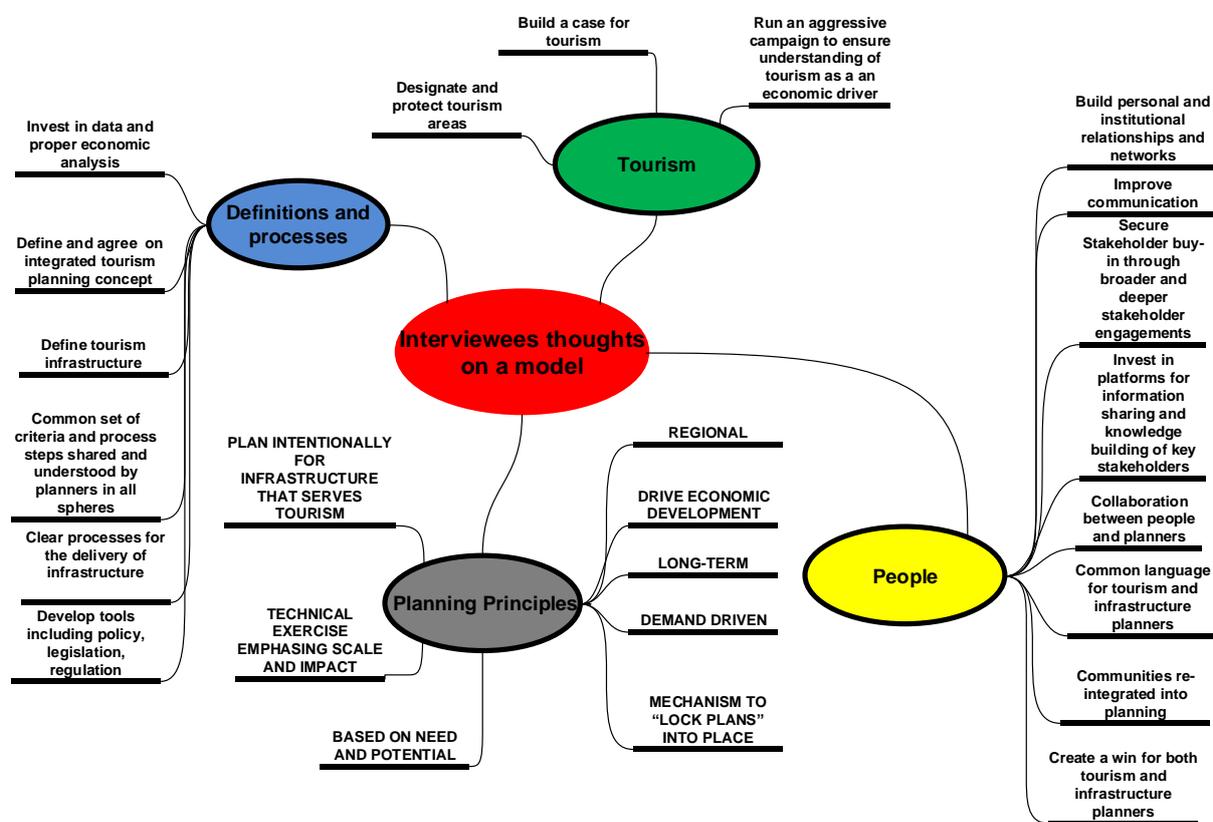


Figure 2. Mind map of key informant interview participants thoughts on a model for integrated tourism infrastructure planning in the South African public sector

The inputs provided through the 21 key informant interviews are arranged into four central organising themes as outlined below.

*Tourism as an important and valued economic sector*

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.

### *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 key informant 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 Kwa-Zulu Natal and the Cradle of Humankind in Gauteng to develop from a planning 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 requires some mechanism to “lock in/fix” technical planning for infrastructure over successive political terms.

### *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 develop tools for policy, legislation and regulation.

### *People*

This theme encapsulates both the people who are served by infrastructure delivery and people who deliver infrastructure. Although the theme of “people” was anticipated, the extent and significance of this being raised by participants was a surprise. The issues raised were twofold. The first issue was about the importance of infrastructure serving the needs to people. In order to do this all stakeholders, in particular communities, would have to be meaningfully engaged in public sector planning in order to secure their buy-in. Although participants agreed that this was a sound principle, without exception, participants also grappled with how to practically realise this principle. The second issue raised was about 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.

### *Case studies*

Three country case studies were also completed as part of this study. The first country case study for South Africa encompassed the Gauteng Province, Cradle of Humankind, South African National Parks and the Victoria and Alfred Waterfront. The second and third country case study was for Dubai and Ghana respectively. All case studies provided evidence for the value and use of Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plans. The importance of people, both visionary leadership and a committed project implementation team, was also highlight in all case studies. The South African case study in particular highlighted the critical need for maintenance of existing tourism infrastructure.

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

This section provides a detailed explanation of the proposed model for integrated tourism infrastructure planning in the South African Public Sector. This model contained as Figure 3

is culmination of inputs from reviews of documents, key informant interviews, focus groups, case studies and the reflections of the researcher.

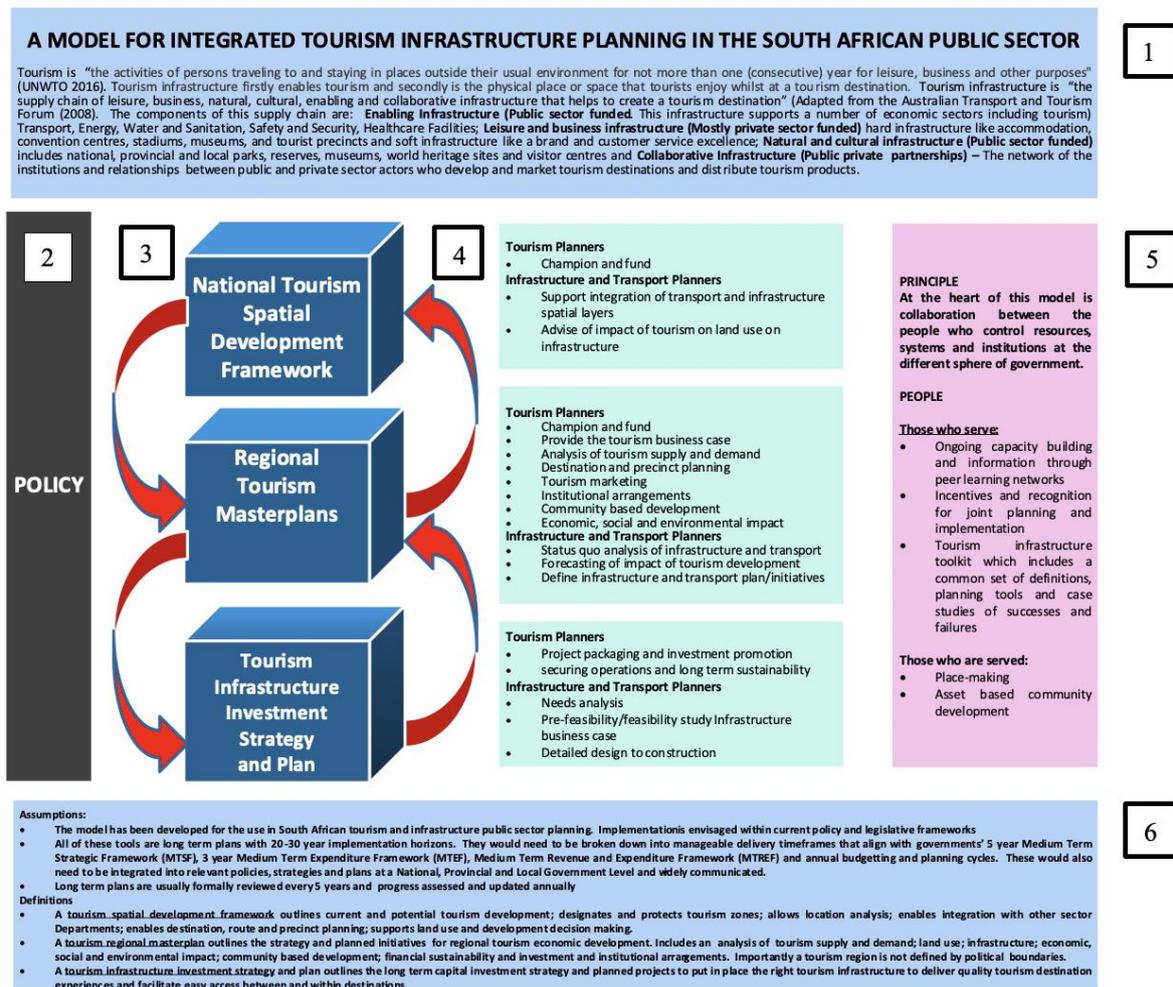


Figure 3: A proposed model for integrated tourism infrastructure planning in the South African public sector (Source: Researcher’s own construction)

Figure 3 above is comprised of six elements as described below.

1. Definitions of tourism and tourism infrastructure (first block on the top): This provides context for the model and contained in the model 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 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:

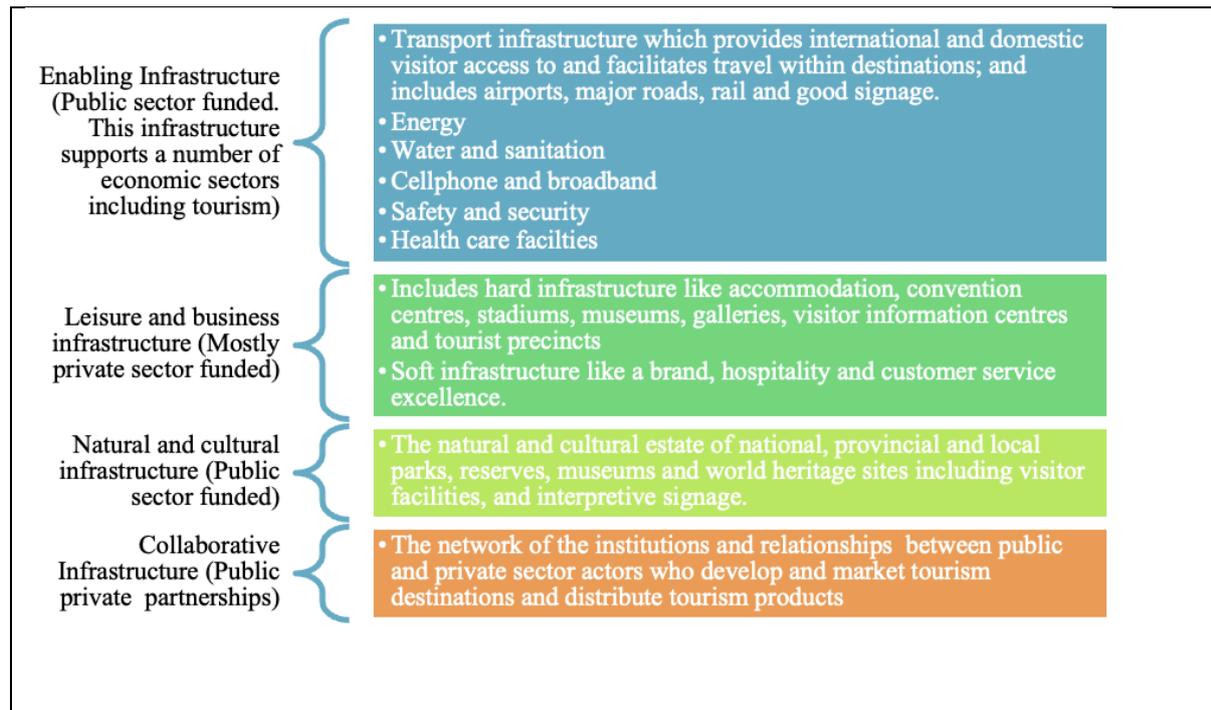


Figure 4: Definition of Tourism (UNWTO, 2016) and Tourism Infrastructure (Adapted from Australian Transport and Tourism Forum, 2008)

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. As 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. These are the essential building blocks of the model. The bi-directional arrows demonstrate a two way 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 for the elements required for integrated tourism infrastructure planning (third set of three blocks in the middle from the left): The roles and responsibilities of tourism and infrastructure planners are provided for the National Tourism Spatial Development Framework; Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan as outlined below.

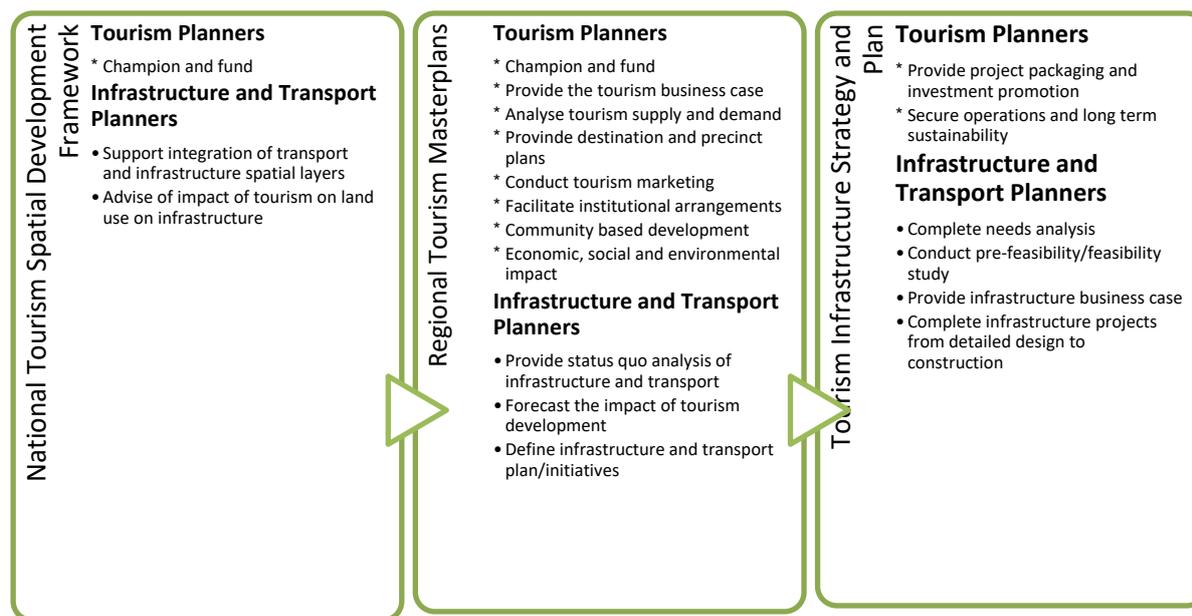


Figure 5: Roles and Responsibilities of Tourism Planners, Infrastructure and Transport Planners for the National Spatial Development Framework, Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan (Source: Researchers own construction)

5. Principle and People (Fourth block in the middle from the left): This model works if there is collaboration between the people who control resources systems and institutions at all three spheres 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 whom tourism infrastructure is delivered. Although this element of people remains unresolved at the time of writing this article, the model suggests the following for each dimension.

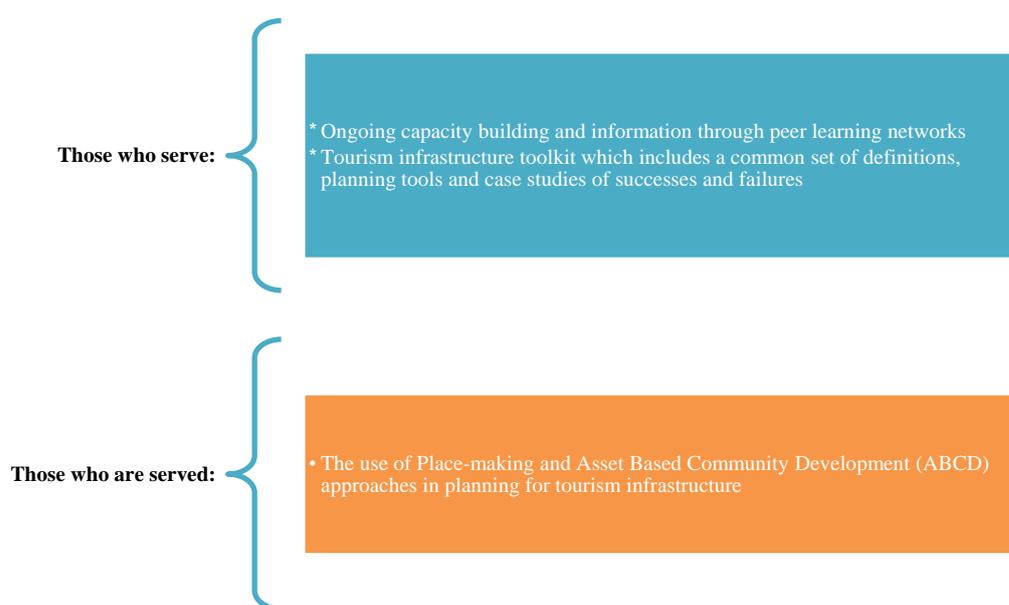


Figure 6: People Element – Important issues for consideration (Source: Researchers own construction)

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 Plans. Both the assumptions and definitions are provided below.

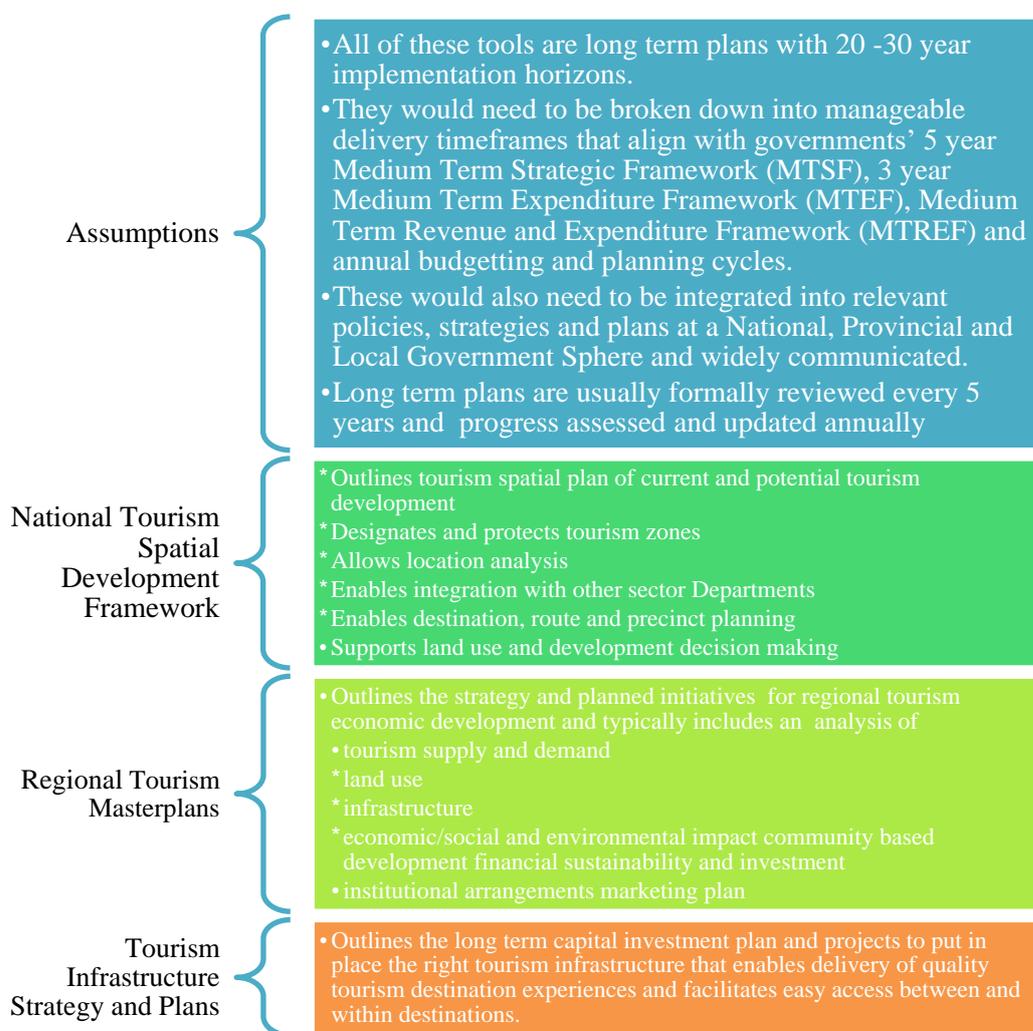


Figure 7: Assumptions and Definitions for the National Spatial Development Framework, Regional Tourism Masterplans and Tourism Infrastructure Strategy and Plan (Source: Researchers own construction)

### 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 Masterplan and Tourism Infrastructure Strategy and Plans are long term plans with 20 - 30 year implementation horizons. The intention of each of these elements is that they will contain both existing and planned tourism infrastructure capital and maintenance investments. Each of them 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 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.

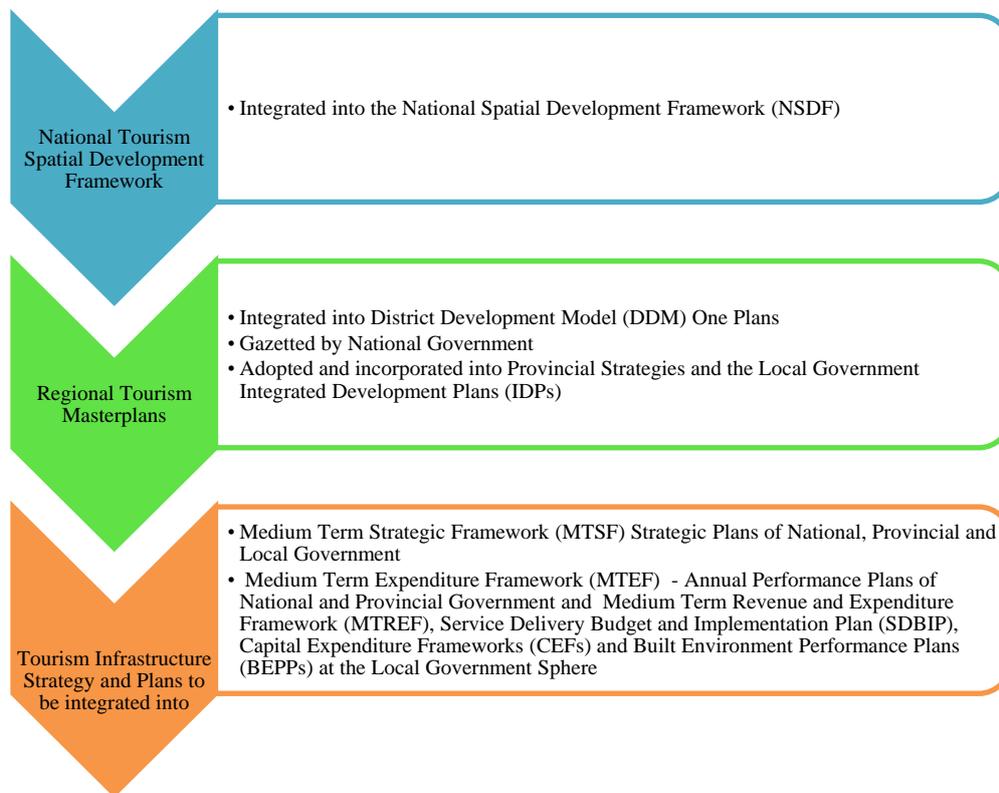


Figure 8: The Integration of Various Building Blocks of the Model for Integrated Tourism Infrastructure Planning with Applicable Policies, Strategies and Plans (Source: Researchers own construction)

Ideally, National Government will have 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 the agenda and priority setting at National Government would be informed by the agenda and priority of each Province and Local Authority. Ideally, implementation will 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.

### Conclusion and recommendations

The literature reflected gaps in tourism planning, policy and models that could adequately address the infrastructure needs of the tourism sector. In South Africa, integrated planning for tourism infrastructure remains a challenge. This paper has presented a proposed model for integrated tourism infrastructure planning which is intended to bridge the gaps in theory and practice. A key limitation of the study is that it focussed on the South African public sector planning context and therefore its general applicability to other countries and contexts has not been tested. Further, 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 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 is only possible with the passage of time. The model could benefit from the integration of further elements e.g. timelines and processes of planning for individual infrastructure sectors (e.g. water and electricity), this is suggested as an area of future research. The People component of the model has not been fully resolved at the time of drafting this article, future research on this aspect is also recommended.

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### References

- Abdullah, S., Razak, A.A. & Jaafar, M. (2014). Public Tourism Infrastructure: Challenges in Development and Maintenance Activities. Available at <http://dx.doi.org/10.1051/shsconf/2014201096> [Retrieved 28 April 2015].
- Australian Transport and Tourism Forum (2008). Tourism Infrastructure Policy and Priorities. Available at <https://www.ttf.org.au/wp-content/uploads/2008/06/TTF-Tourism-Infrastructure-Priorities-2008.pdf> [Retrieved 31 July 2012]
- Bazargani, R.H.Z. & Kiliç, H. (2021). Tourism Competitiveness and Tourism Sector Performance: Empirical Insights From New Data. *Journal of Hospitality and Tourism Management*, 46, 73-82.
- Beauregard, R.A. (1998). Tourism and Economic Development Policy in US Urban Areas. In D. Ioannides & K.G. Debbage (Eds.). *The Economic Geography of the Tourist Industry: A Supply-Side Analysis* (pp 220-234), London: Routledge.
- Ben-Dalia, S., Collins-Kreiner, N. & Churchman, A. (2013). Evaluation of an Urban Tourism Destination. *Tourism Geographies*, 15 (2), 233-249.
- Blom, N. (2018). “Vaal District Faces Catastrophe as Emfuleni Sewage Spills into River”, The Business Day, 31 July 2018. Available from <https://www.businesslive.co.za/bd/national/science-and-environment/2018-07-31-emfuleni-facescatastrophe-as-sewage-threatens-crops-and-tourism/> [Retrieved 31 July 2022].
- Botha, T. (2019). *The Impact of 'Load-shedding' Within the Nelson Mandela Bay Restaurant Industry* (Doctoral dissertation, The IIE).
- Braun, V. & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3 (2), 77-101.
- Businesslive (2021). “Durban Moves to Exempt Key Sewage Pumps from Load Shedding Available from <https://www.businesslive.co.za/bd/national/2021-11-15-durban-moves-to-exempt-key-sewage-pump-stations-from-load-shedding/> [Retrieved 10 May 2022].
- Butler, R.W. (1980). The Concept of a Tourist Area Cycle of Evolution: Implications for Management of Resources. *Canadian Geographer/Le Géographe Canadien*, 24 (1), 5-12.
- Calderon, C., Cantu, C. & Chuhan-Pole, P. (2018). *Infrastructure Development in Sub-Saharan Africa: A Scorecard*. Policy Research Working Paper: No. 8425, World Bank, Washington, DC.

- Costa, C. (2001). An Emerging Tourism Planning Paradigm? A Comparative Analysis Between Town and Tourism Planning. *International Journal of Tourism Research*, 3(6), 425-441.
- Costa, C. (2019). Tourism Planning: A Perspective Paper. *Tourism Review*, 75 (1), 198-202.
- Dredge, D. (1999). Destination Place Planning and Design. *Annals of Tourism Research* 26 (4), 772-791.
- Dredge, D. & Jamal, T. (2015). Progress in Tourism Planning and Policy: A Post-Structural Perspective on Knowledge Production. *Tourism Management*, 51 (12), 285-297.
- Dube, K., Nhamo, G. & Chikodzi, D. (2020). Climate Change-Induced Droughts and Tourism: Impacts and Responses of Western Cape Province, South Africa. *Journal of Outdoor Recreation and Tourism*, 39, 100319-100329.
- Duran-Fernandez, R. & Santos, G. (2014). An Empirical Approach to Public Capital, Infrastructure and Economic Activity: A Critical Review. *Research in Transportation Economics*, 46, 3-16.
- Dwyer, L. & Kim, C. (2003). Destination Competitiveness: Determinants and Indicators. *Current Issues in Tourism*, 6 (5), 369-414.
- Ehlers, T.(2014). Understanding the Challenges for Infrastructure Finance. BIS Working Paper: 454. Bank for International Settlements.
- Gaal, H.O. & Afrah, N.A. (2017). Lack of Infrastructure: The Impact on Economic Development As a Case of Benadir Region and Hir-shabelle, Somalia. *Developing Country Studies*, 7 (1), 49-55.
- Gauteng Provincial Government (2012). Tourism Infrastructure Strategy and Plan – Status Quo Assessment. Prepared by Shisaka Development Management Services.
- Giddy, J.K., Rogerson, C.M. & Rogerson, J.M. (2022). Rural Tourism Firms in the COVID-19 Environment: South African Challenges. *Geo Journal of Tourism and Geosites*, 41 (2), 343-353.
- Gunn, C.A. (1977). Industry Pragmatism vs Tourism Planning. *Leisure Sciences*, 1 (1), 85-94.
- Gunn, C.A. (1994). *Tourism Planning: Basics, Concepts, Cases*, 3<sup>rd</sup> Edition. United States: Taylor & Francis.
- Hassan, A. & Burns, P. (2014). Tourism Policies of Bangladesh—A Contextual Analysis. *Tourism Planning & Development*, 11 (4), 463-466.
- Heath, E.T. (2003). Towards a Model to Enhance Destination Competitiveness: A Southern African Perspective. Available from [https://repository.up.ac.za/bitstream/handle/2263/6058/Heath\\_Towards\(2003\).pdf?sequence=1](https://repository.up.ac.za/bitstream/handle/2263/6058/Heath_Towards(2003).pdf?sequence=1) [Retrieved 25 April 2022].
- Imikan, A.M. & Ekpo, K.J. (2012). Infrastructure and Tourism Development in Nigeria: A Case Study of Rivers State. *International Journal of Economic Development Research and Investment*, 3 (2), 53-60.
- Inskeep, E. (1991). *Tourism Planning – An Integrated and Sustainable Development Approach*. New York: Van Nostrand Reinhold.
- Javed, M. & Tučková, Z. (2020). The Role of Government in Tourism Competitiveness and Tourism Area Life Cycle Model. *Asia Pacific Journal of Tourism Research*, 25 (9), 997-1011.
- Jenkins, C.L. (2015). Tourism Policy and Planning for Developing Countries: Some Critical Issues. *Tourism Recreation Research*, 40 (2), 144-156.
- Kerimoglu, E., Koramaz, K., Yazgi, B. & Ertekin, O. (2013). Challenges In Tourism Development: Can Istanbul Survive Without A Master Plan?. *ERSA Conference*

- Papers*, European Regional Science Association. Available at <https://ideas.repec.org/s/wiw/wiwsa.html> [Retrieved 25 February 2018].
- Kubickova, M. & Li, H. (2017). Tourism Competitiveness, Government and Tourism Area Life Cycle (TALC) Model: The Evaluation of Costa Rica, Guatemala and Honduras. *International Journal of Tourism Research*, 19 (2), 223-234.
- Kubickova, M. and Martin, D. (2020). Exploring the Relationship Between Government and Destination Competitiveness: The TALC Model Perspective. *Tourism Management*, 78, 104040.
- Neuman, M. & Smith, S. (2010). City Planning and Infrastructure: Once and Future Partners. *Journal of Planning History*, 9 (1), 21-42.
- Nyasha, S., Odhiambo, N.M. & Asongu, S.A. (2021). The Impact of Tourism Development on Economic Growth in Sub-Saharan Africa. *The European Journal of Development Research*, 33 (6), 1514-1535.
- Mandić, A., Mrnjavac, Ž. & Kordić, L., (2018). Tourism Infrastructure, Recreational Facilities and Tourism Development. *Tourism and Hospitality Management*, 24 (1), 41-62.
- Mistilis, N. (1999). Public Infrastructure Development for Tourism in Australia. *The Journal of Tourism Studies*, 10 (1), 40-50. Available at, [http://www-public.jcu.edu.au/events/idc/groups/public/documents/journal\\_article/jcudev\\_012700~5.pdf](http://www-public.jcu.edu.au/events/idc/groups/public/documents/journal_article/jcudev_012700~5.pdf) [Retrieved 21 March 2015].
- Mo, C.M., Howard, D.R. & Havitz, M.E. (1993). Testing an International Tourist Role Typology. *Annals of Tourism Research*, 20 (2), 319-335.
- National Planning Commission (2013). National Development Plan Vision 2030. National Planning Commission, Pretoria. Available at <https://www.gov.za/sites/default/files/Executive%20Summary-NDP%202030%20-%20Our%20future%20-%20make%20it%20work.pdf> [Retrieved 21 March 2015].
- Rasul, G. & Manandhar, P. (2009). Prospects and Problems in Promoting Tourism in South Asia: A Regional Perspective, *South Asia Economic Journal*, 10 (1), 187-207. Available at [www.sae.sagepub.com](http://www.sae.sagepub.com) [Retrieved 28 April 2015].
- Republic of South Africa Government (1996). Constitution of the Republic of South Africa. Available at <https://www.justice.gov.za/legislation/constitution/saconstitution-web-eng.pdf> [Retrieved 20 May 2022].
- Republic of South Africa Government, Presidential Infrastructure Co-ordinating Commission (2012). A summary of the South African National Infrastructure Plan. Available at [http://www.gov.za/sites/www.gov.za/files/PICC\\_Final.pdf](http://www.gov.za/sites/www.gov.za/files/PICC_Final.pdf) [Retrieved 20 August 2016].
- Ritchie, J.B. & Crouch, G.I. (1993). *Competitiveness in International Tourism: A Framework for Understanding and Analysis*. University of Calgary: World Tourism Education and Research Centre.
- Rogerson, C.M. & Van der Merwe, C.D. (2016). Heritage Tourism in the Global South: Development Impacts of the Cradle of Humankind World Heritage Site, South Africa. *Local Economy*, 31 (1-2), 234-248.
- SAICE (2017). The SAICE infrastructure report card for South Africa: 2017, The South African Institution of Civil Engineering (SAICE).
- Santos, M.C., Ferreira, A.M. & Costa, C. (2014). Influential Factors in the Competitiveness of Mature Tourism Destinations. *Tourism & Management Studies*, 10 (1), 73-81.

- Schürenberg-Frosch, H. (2014). Improving Africa's Roads: Modelling Infrastructure Investment and Its Effect on Sectoral Production Behaviour. *Development Policy Review*, 32 (3), 327-353.
- Smith, S.L. (1994). The Tourism Product. *Annals of Tourism Research*, 21 (3), 582-595.
- Seetanah, B., Juwaheer, T.D., Lamport, M.J., Rojid, S., Sannasee, R.V. & Subadar, A.U. (2011), Does Infrastructure Matter In Tourism Development? *University of Mauritius Research Journal*, 17 (1), 89-108.
- Sharma, M. & Bansal, S.P. (2010). *Tourism Infrastructure Development: A Sustainable Approach*. New Delhi: Kanishka Publishers Distributors.
- South African Human Rights Commission (SAHRC) (2021). Final report of the Gauteng provincial inquiry into the sewage problem of the Vaal River, Available at. <https://www.sahrc.org.za/home/21/files/Final> [Retrieved 17 February 2022].
- Tsekeris, T. (2014) Multi-sectoral interdependencies of regional public infrastructure investments. *Socio-Economic Planning Sciences*, 48 (4), 263-272. Available at <http://dx.doi.org/10.1016/j.seps.2014.06.001> [Retrieved 28 April 2015].
- Tosun, C. & Jenkins C.L. (1998). The Evolution of Tourism Planning in Third-World Countries: A Critique. *Progress in Tourism and Hospitality Research*, 4 (2), 101-114.
- Wang, X. & Liu, D. (2020). The Coupling Coordination Relationship Between Tourism Competitiveness and Economic Growth of Developing Countries. *Sustainability*, 12 (6), 2350-2368.
- Watermeyer, R. (2013) August. Value for Money in the Delivery of Public Infrastructure. In *Proceedings of 5th West African Built Environment Research (WABER) Conference*, 3-19.
- Watermeyer, R. & Phillips, S. (2020). Public Infrastructure Delivery and Construction Sector Dynamism in the South African Economy. *Background Paper. NPC's Economy Series. Pretoria: NPC*.
- Wesgro (2021). Annual Report 2020/21. Available at <https://www.wesgro.co.za/uploads/files/21.pdf> [Retrieved 19 May 2022].
- Wong, C. & Webb, B. (2014). Planning for Infrastructure: Challenges to Northern England. *Town Planning Review*, 85 (6), 683-708. Available at <http://online.liverpooluniversitypress.co.uk/doi/abs/10.3828/tpr.2014.42>. [Retrieved 28 April 2015].
- World Travel and Tourism Council (WTTC) (2015). *Governing National Tourism Policy*. World Travel and Tourism Council, United Kingdom.