A comparison of integrated transport and spatial planning Instruments: a case study of the Eden District Municipality, Hermanus Local Municipality and Cape Town Metropolitan areas.

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Foreword

O Lord, You are the portion of my inheritance and my cup – You maintain my lot.
The lines have fallen to me in pleasant places; I will bless the Lord who has given me counsel.
I have set the Lord always before me, because He is at my right hand – I shall not be moved.
Ps 16:5-8

I can do all things through Christ who strengthens me
Philippians 4:13

I will say of the Lord "He is my refuge and my fortress – my God in Him will I trust"
Ps 91:2

It is with deep gratitude towards my heavenly Father for His infinite grace and love that I dedicate this dissertation. I want to thank my beloved lord Jesus for His faithfulness that is new every morning. Without Him my goal would have been unreachable!

I want to thank my parents for the privilege and opportunity to further my studies. I know about the sacrifices you made – it will never be forgotten.

Dad, thanks for your financial support even when things were difficult you found a way. Thank you for all the hugs and for just being there. Mom- you never gave up! Never stopped praying, never stopped trusting in an unfailing God to see me through. Thank you for moral support, strong encouragement, tears and laughter – somehow you were just always on my side. Thank you!
Edwin –my twin brother, you always let me know that you are proud of me even when you had doubts. Thanks "hoor"

Thanks to my wonderful family who constantly enquired about my progress and for your words of encouragement and giving me a place to stay and my travels. I also want to thank the people of Stilbaai who prayed for me and who took part in my upbringing in this beautiful little jewel of a town by the sea; here I have many fathers, mothers, grannies and grandpas. To Anandi, my best friend in the whole world, thank you for your undying encouragement and friendship through thick and thin.

And last but not least to Prof Schoeman, thank you for all your advice and encouragement and for believing in me when I had my doubts. All your words of affirmation that build me up when I was down will be kept in my heart forever.

Abstract

In the field of city planning, a growing need exists for the integration of spatial development with transportation planning instruments. This study identifies issues related to the definition, evaluation and implementation of the integration of sustainable development and sustainable transportation within three types of municipalities.

Significant issues that are explored include the various definitions of integration; the range of issues considered under notions of integration; the diverse perspectives on, and criticism of development and transportation integration analysis, as well as approaches to evaluating integration and transportation impacts on development. Furthermore, the study reports on the goals of each municipality, specifically with reference to sustainable public transportation decision-making; approaches to sustainable transportation, automobile dependency; land use; and finally, on sustainable transportation and development integration solutions.

Approaches to spatial development used to focus on the organisation of land use issues, but this field is increasingly defined more broadly to include economic and social welfare, quality of human health/life and environmental integrity. From a sustainability perspective, a narrow definition of sustainable transportation tends to favour individual technological solutions, while a broader definition tends to favour more integrated solutions, including improved travel choices, economic incentives, institutional reforms, land use changes as well as technological innovation. Integration focuses on the teamwork required between the relevant departments as well as between levels or spheres of government, and often entails the implementation of nodal-corridor approaches. Sustainability planning may require changing the way people think about solutions to transportation problems in the future.

The literature survey (Chapter 2) addresses a number of salient concepts, namely transportation and spatial development integration, public transportation and its orientated development, nodal-corridor development, as well as environmental and development relationships. Furthermore, an investigation into the legislative frameworks and policies is presented with emphasis on spatial development, transportation plans and node-and-corridors development (Chapter 3).

This is followed in Chapter 4 by a report on an investigation into, and interviews held with representatives from the three municipalities (Hermanus local municipality, Cape Town metropolitan municipality and Eden district municipality) with reference to the integrated transportation plans (ITP) and spatial development frameworks (SDF) of these municipalities. This section reflects the opinions of relevant role-players regarding the central aspects of this study. Chapter 5 presents a summary of the study as well as a number of conclusions. In this chapter, planning recommendations are provided with the aim of advising municipalities on possibilities for the integration of sustainable transportation plans and spatial planning / development instruments.

Keywords: *Transportation and development integration; Sustainable public transportation; Transport planning; Comprehensive planning; Automobile dependency; Node-corridor approach, Environmental development relationship, Transportation orientated development, Governmental sphere integration.*

Samevating:

In die veld van stadsbeplanning bestaan daar ‘n toenemende behoefte aandie integrasie van ruimtelike ontwikkeling en vervoerbeplanningsinstrumente. Hierdie studie identifiseer ‘n aantal kwessies wat verband hou met die definiëring, evaluering en implementering van die integrasie van volhoubare ontwikkeling en volhoubare vervoer binne drie tipes munisipaliteite.

Beduidende kwessies behels verskillende definisies van integrasie; ‘n aantal aspekte ten opsigte van beskouings oor integrasie; uiteenlopende perspektiewe op, en kritiek jeens die ontleding van integrasie van ontwikkeling en vervoer, sowel as benaderings tot die evaluering van integrasie en die impak van vervoer op ontwikkeling. Die studie bied verder ‘n oorsig van die doelwitte van elke munisipaliteit, met spesifieke verwysing na besluitneming ten opsigte van volhoubare openbare vervoer; benaderings tot volhoubare vervoer; afhanklikheid van motorvoertuigvervoer; grondgebruik en uiteindelik ook van oplossings vir volhoubare vervoer en ontwikkelingsintegrasie.

Benaderings tot ruimtelike ontwikkeling het aanvanklik gefokus op die organisering van grondgebruiksake, maar hierdie veld word toenemend in ‘n breër sin gedefinieer om ook ekonomiese en sosiale welsyn, menslike gesondheids- en lewenskwaliteit en omgewingsintegriteit in te sluit. Vanuit die perspektief van volhoubaarheid is dit so dat ‘n eng definisie vir volhoubare vervoer neig om die individuele tegnologiese oplossings te bevoordeel, terwyl ‘n breër definisie neig om eerder geïntigreerde oplossings, wat verbeterde reiskeuses, ekonomiese aansporings, institusionele hervormings, grondgebruikveranderings as ook tegnologiese innovasie insluit, te bevoordeel. Integrasie is gerig op die samewerking tussen die tersaaklike departemente en ook tussen die verskillende vlakke van regering; dit behels dikwels die implementering van nodus-korridorontwikkelingsbenadering. Volhoubaarheidsbeplanning mag wel vereis dat ‘n verandering teweeggebring word ten opsigte van denkwyses oor oplossings van vervoerprobleme vir die toekoms.

In die literatuuroorsig (Hoofstuk 2) word ‘n aantal sentrale konsepte bespreek, naamlik die integrasie van vervoer en ruimtelike ontwikkeling; openbare vervoer en die gerigte ontwikkeling daarvan; nodus-korridorontwikkeling, en die verhouding tussen die omgewing- en ontwikkeling.
Hierna volg ‘n ondersoek na die wetlike raamwerke en beleidsbenaderings ten opsigte van ruimtelike ontwikkeling, vervoer planne en nodus-en-korridorontwikkeling (Hoofstuk 3).

Hierna, in Hoofstuk 4, volg ‘n oorsig van onderhoude met verteenwoordigers van die drie munisipaliteite (Hermanus se plaaslike munisipaliteit, Kaapstadse metropolitaanse- en, en Eden se distrikmunisipaliteite) met verwysing na diegeïntegreerde vervoerplanne (GVP) en ruimtelike ontwikkelingsraamwerke (ROR) van hierdie munisipaliteite.

Hoofstuk 5 bied ‘n opsomming van die studie sowel as ‘n aantal gevolgetrekkings. In hierdie hoofstuk word beplanningsaanbevelings gebied met die doel om munisipaliteite te adviseer ten opsigte van die integrasie van volhoubare vervoerplanne en ruimtelike ontwikkelingsinstrumente.

Sleutel woorde*:* *Vervoer en ontwikkelingsintegrasie; Volhoubare openbare vervoer; Vervoerbeplanning; Omvattende beplanning; Afhanklikheid van motorvervoer; Nodus-Korridorbenadering; Verhouding tussen omgewing en ontwikkeling; Vervoergeöriënteerde ontwikkeling, Regeringsvlakintegrasie.*

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Tables and figures

Acronyms

- BRT - Bus Rapid Transportation
- CBD - Central business district
- CITP - Comprehensive integrated transportation plan
- CPTR - Current public transportation record
- CSS - Context-sensitive solutions
- CT - Cape Town
- DFA - Development Facilitation Act
- DITP - District integrated transportation plan
- DM - District municipality
- DMA - District municipality area
- DOT - Department of Transportation
- EDM - Eden district municipality
- GDP - Ground development plans/strategies
- GGP - Gross geographic product
- GRP - Gross regional product
- HRD - Human resource development
- I&AP's - Interested and affected parties
- IDP - Integrated development plans
- ITP - Integrated transportation plan
- LITP - Local integrated transportation plan
- LPL - Local planning level
- LM - Local municipality
- LUMS - Land use management system
- LUP - Land use planning
- LUPO - Land Use Planning Ordinance
- MEC - Members of the Executive Council
- MIG - Municipal infrastructure grant
- MTEF - Medium-term economic framework
- NLTTA - National Land Transportation Transition Act
- NLTB - Draft National Land Transportation Bill
- NMT - Non-motorised transportation
- NSDP - National spatial development perspective
- OLM - Overstrand local municipality
- OLS - Operating licensing strategy
- OSDF - Overberg spatial development framework
- PA - Planning authorities
- PDA - Planning and Development Act
- PT - Public transportation
- PLTF - Provincial land transportation framework
- PTP - Public transportation plan
- PAWC - Provincial Administration of the Western Cape
- PGWC - Provincial Government of the Western Cape
- QoL - Quality of life
- RDP - Reconstruction and Development Programme
- RSDF - Regional spatial development framework
- SDF - Spatial development framework

- SDP - Spatial development plans
- SPTN - Strategic public transportation networks strategy
- TDA - Transportation development area
- TOD - Transport-orientated development
- TP - Transportation planning
- WP - White Paper

Definitions:

- **Integrated transportation plan** –

This is a comprehensive and integrated process aimed at generating a plan relating to the regulation, provision and management of transportation infrastructure (roads, rail, stations, terminals and public transportation facilities) and for regulating public transportation operations/services and the use of infrastructure by both operators of public transportation and private travellers.

Because of the spatial relationship that exists between residential and economic activities and which results in the demand for travel, it is essential that an integrated transportation plan should be developed in the context of a land use plan which supports efficient public transportation. Details that must be contained in a transportation plan include public transportation operations, circulation or movement and mobility needs, vehicles and rolling stock, depots/equipment and human resources (Department of Transportation[a.], 2009:iv).

- **Spatial development framework –**

Taking into account the current pattern of land use and the nature of development in municipal areas, a spatial development framework is required to describe in words and illustrations how the municipality sees desirable future patterns of land use and development in its area of jurisdiction.
The spatial development framework is a legally enforceable component of the IDP, which indicates both to the municipality (councillors and officials) and to the public (developers, land owners and the like) where certain types of land use and associated developments are permissible, and where certain activities are unlikely to be permitted. As such, it forms the basis for land use management and serves as a guideline
(Buffalo City IDP, 2002:141).

Structure of the research:

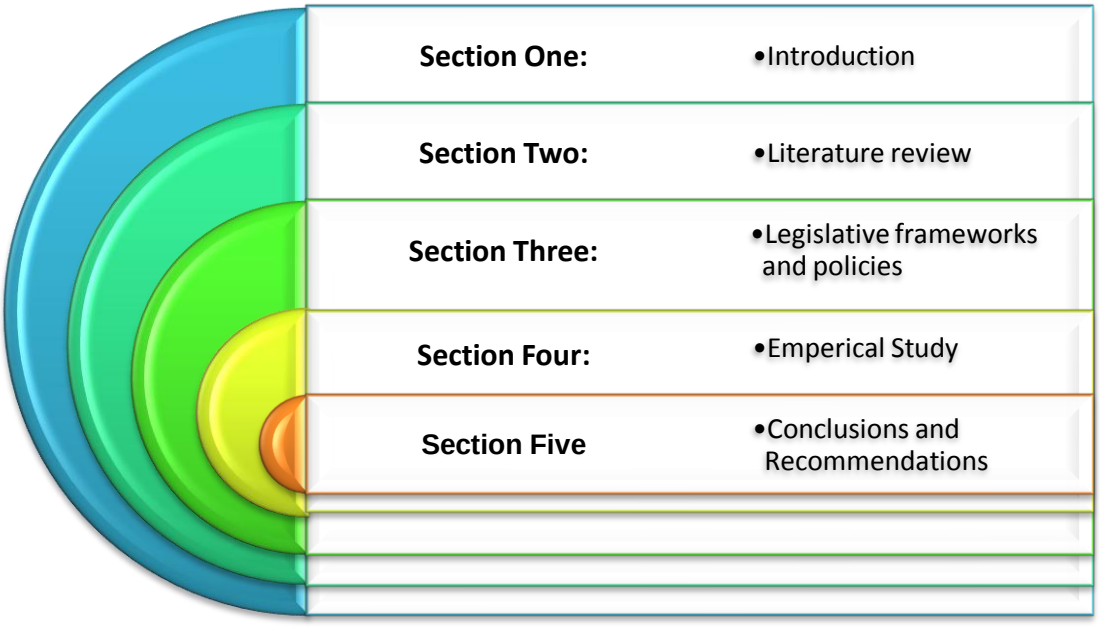

Figure 1: Graphic representation of the structure of the study
Source: Own construction, 2011