

**UNIVERSITY OF VENDA
SCHOOL OF ENVIRONMENTAL SCIENCES
DEPARTMENT OF URBAN AND REGIONAL PLANNING**



University of Venda

**Outcomes of Trans-border Spatial Development Cooperation:
Insights from Musina and Beitbridge's Twinning Agreement.**

By

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March 2017

UNIVERSITY OF VENDA
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Dissertation title:

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A dissertation submitted to the Department of Urban and Regional Planning in the School of Environmental Sciences, in fulfilment of the requirements for the Degree Master of Urban and Regional Planning (MURP).

DECLARATION

I, **Nyamwanza Shylet Anesu**, student number **11605747** hereby declare that this dissertation submitted by me for the award of the Master of Urban and Regional Planning degree at the University of Venda is my own independent work conducted under the supervision of Professor P. Bikam and Dr J. Chakwizira. It has not been previously submitted for a degree at this or any other University and all referenced materials have been duly acknowledged.

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ACKNOWLEDGEMENTS

I convey my profound gratitude to my supervisors Professor Peter Bikam and Dr. James Chakwizira. Their professional guidance, and constructive advice motivated me to complete my work.

I also acknowledge with gratitude the funding offered to me by the University of Venda which enabled me to collect data from all my research sites.

Many thanks to all my respondents from Musina local municipality in South Africa, Beitbridge Town Council and Beitbridge Rural district Council in Zimbabwe as well as the Department of Immigration, Beitbridge border post. I would like to thank Mr Muleya (Beitbridge Town Council), Mr Mphephu (Musina local Municipality) and Mr Malindi (Beitbridge border post) for facilitating the data collection process till the end.

A special word of thanks to all staff members in the department of Urban and Regional Planning for their assistance. Many thanks to the department's postgraduate's 2016 students. Thank you Ntsieni Khwathisi, Brilliant Tivavone, Moffat Frank and Rivoningo Maluleke for your unwavering support.

Lastly, to my firm foundation, my mother, father, Loice, Josephine and Knowledge, this study would not have been possible without your love, patience and financial assistance.

DEDICATION

I dedicate this dissertation to my father, a brave soldier who gave me a brave heart to complete my studies. It is now a week since you were promoted into glory on the 11th of March 2017. “This dissertation is a product of the seed of endurance that you planted in me. May your soul rest in eternal peace.”

ABSTRACT

Current studies reveal that adjacent municipalities can achieve more if they plan and share resources collaboratively. The study assessed the impact of trans-border spatial development cooperation with respect to a twinning agreement signed between the Musina local municipality, South Africa, and the Beitbridge Rural District Council, Zimbabwe in October 2004. It unpacks to the extent to which the twinning agreement objectives were achieved in terms of spatial development. The assessment revolved around six specific objectives using a trans-border twinning performance evaluation survey approach. The assessment of the implementation of the agreement focused on desirable outcomes, inputs in terms of resources, the implementation process involved in terms of effectiveness and efficiency, outputs in terms of targets achieved, impact with respect to where they are now, who needs to do what and when and whether the planning and implementation process was effective. Research questions were investigated using 14 key informant interviews, 347 questionnaires and direct field observations with the aid of an impact evaluation survey approach. The study showed that the challenges faced in municipal twinning agreements range from institutional, structural to financial. It was evident that the Musina-Beitbridge twinning agreement did not have a concrete implementation plan from 2004 to 2016. The spatial planning goals indicated in the twinning document were not achieved. The Joint coordination meetings were no longer being conducted, benchmarking exercises were not conducted, the goals were not time-bound, there was no standalone budget, no central secretariat and lastly, the majority of the local residents were not aware of the twinning's existence. The study recommended a strategic trans-border implementation framework which addresses initial planning provisions, resource allocation, stakeholder participation and ensuring that targets are achieved as well as mitigating risks.

Key words: Outcomes, trans–border, spatial development cooperation, assessment.

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LIST OF ACRONYMS AND ABBREVIATIONS

ANC	African National Congress
EAC	East African Community
BBEMS	Beitbridge Efficiency Management System
Beitbridge RDC	Beitbridge Rural District Council
Beitbridge TC	Beitbridge Town Council
BWPIA	Beitbridge Water Projects Impact Assessment
CBD	Central Business District
CEO	Chief Executive Officer
CEMR	Council of European Municipalities and Regions
COMES	Common Market for Eastern and Southern Africa
C2C	City to city relationships
COMESA	Common Market for Eastern and Southern Africa
EU	European Union
EC	European Commission
GIS	Geographical Information Systems
IDP	Integrated Development Plan
JIC	Joint Implementation Committee
LED	Local Economic Development
LGBI	Local Government International Bureau
MIR	Municipal International Relations

Musina LM	Musina Local Municipality
MoU	Memorandum of Understanding
NDP	National Development Plan
NLC	National League of Cities
NQD	Number of Questionnaires Distributed
NQR	Number of Questionnaires Returned
N1	National route one
OUZIT	Okavango Upper Zambezi Tourism Initiative
RTCP Act	Regional, Town and Country Planning Act
SADC	Southern African Development Community
SCI	Sister Cities International
SDF	Spatial Development Plan
SEZ	Special Economic Zone
SDI	Spatial Development Initiative
SMART	Specific, Measurable, Achievable, Realistic and Time bound
STWC	Sengwe-Tshipise Wilderness Corridor
SPLUMA	Spatial Planning and Land Use Management Act
Stats SA	Statistics South Africa
SPSS	Statistical Package for Social Sciences
TFCA	Trans-frontier Conservation Area
TCA	Thematic Content Analysis
UCs	Urban Councils

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UCLG	United Cities and Local Government
UNACLA	United Nations Advisory Committee of Local Authorities
UN	United Nations
UNDP	United Nations Development Programme
UNIVEN	University of Venda
UDCORP	Urban Development Corporation
USA	United States of America
USB	University of Stellenbosch Business School
WACLAC	World Association of Cities and Local Authorities Coordination
WWII	World War Two
Zim Stats	Zimbabwe Statistics

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CHAPTER 1: INTRODUCTION

1.1 Introduction

According to Wardsworth (2006), twinning or sister city agreements are forms of legal and social memoranda of agreements between towns and regions to promote economic, cultural and commercial ties. However, De Villiers (2012) indicated that the modern concept of town twinning has to do with fostering friendship and understanding to promote development through trade, information and resource sharing. Similarly, Jayne *et al.*, (2011) indicate that in recent times twinning has increasingly been used to form strategic international business relationships between cities. Ahmad (2001), on the other hand, indicates that twinning with regard to city planning has undergone a paradigm shift. Hence, the use of terms such as global village, city state, community and neighbourhood development more than the term national or federal. Twinning evolved over the years from being a historic instrument of building peace among European nations which had been previously at war into a worldwide phenomenon encompassing friendship, solidarity, culture, international understanding, humanitarian assistance, sustainable development and good governance (Ahmad (2001).

Diaz (2012) indicates that twinning is a decentralised form of development, for example building bridges of understanding between two cities. Furthermore, Diaz (2012) indicates that twinning agreements are instruments used for fostering international cooperation between adjacent cities to foster spatial development. Usually, there is genuine reciprocity of efforts and benefits for the two towns or cities involved. On the other hand, Jayne *et al.*, (2011) notes that the discussions on twinning do not seem to capture the implementation component of twinning agreements, particularly the resolutions. Levent (2006) asserts that what is more important is what has been achieved in a twinning agreement. Similarly, there is also a disjuncture between the theory and practice of twinning relationships (Barbra, 2010).

In view of the opinions of the authors explained above, twinning agreements are derived for a specific local interest and it is important to note that twinning also responds to different motivations and desirability (Chapisa, 2011). One critical example of twinning that centred on achievement of goals was the twinning agreement in United Kingdom in 1947, where two cities came together to establish a common budget for the benefit of the common population and the general spatial

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development of the two cities (De Villiers, 2005). In this regard, high quality twinning initiatives and exchanges were involved in all sections of the two communities.

There are benefits in twinning agreements between two cities. However, the problem of twin city arrangements is the implementation strategies of the agreements (Jayne *et al.*, 2011). This is because in most twinning agreements the objectives are very wide and not narrowed down to be specific and achievable. When this happens the tendency is that a signed document will exist, but with not much achieved.

Therefore, my motivation to study the twinning agreement between Musina local municipality in Limpopo Province of South Africa and Beitbridge Rural District Council in Matebeleland South province of Zimbabwe was to unpack the level of implementation achieved since the signing of the agreement in October 2004. My interest in this research was to assess trans-border spatial development cooperation between the two municipalities in terms of infrastructure development, transportation coordination, information and expertise sharing as well as the implementation of Special Economic Zones. The choice of streamlining the research to spatial development cooperation was informed by the eight objectives of the twinning agreement which were addressing different sectors of development. The aim is to determine the extent to which the agreement has been implemented and/or achieved since 2004 and whether it has benefited the two municipalities with respect to spatial development.

It is important to note that the two towns that were studied (Musina and Beitbridge), are located in two separate countries within a distance of 16 kilometres from one another. They share common features and characteristics in terms of location and physiographic features as discussed in section 1.3.1.

1.2 Purpose of the study

The study assesses the impact of the approach that was used to address the trans-border spatial development cooperation signed between Musina and Beitbridge officials in 2004, with respect to:

- Unpacking the level of implementation that has been achieved in relation to the Musina-Beitbridge twinning agreement, since it was signed in October 2004.

- Determining the achievements of the twinning agreement and the mutual benefits to the local population in both towns.
- Examining the impact of trans-border spatial development cooperation in terms of infrastructure development, transport coordination, information and expertise sharing as well as establishment of Special Economic Zones.

1.3 Background to study: Musina and Beitbridge

The background to the study provides a general description of the area that was researched on and how it contextualizes the evolution of the twinning agreement. Musina Local Municipality is a category B municipality in terms of the Municipal Structures Act, 1998 (Act 117 of 1998) and its main functions are the provision of basic services to the communities as per Part B of Schedule 4 and 5 of the Constitution of the Republic of South Africa, 1996 (Act 106 of 1996) (Musina SDF 2014/15 Review). Musina Local Municipality is one of the four local municipalities within Vhembe District Municipality and is situated in the Northern part of Limpopo Province. The municipal area covers approximately 757 829 hectares. It represents six wards that extend from the confluence of the Mogalakwena River and Limpopo River in the West to the confluence of the Nwanedi River and Limpopo River in the East. In its Southern borders, it is flanked by Tshipise and Mopane, and is bordered by Botswana and Zimbabwe in the North West and North respectively. Musina town was established in 1929. According to Stats SA (2011), Musina Local Municipality had a population of 68 359 people and a growth rate of 5, 53% from 2001 to 2011. The town started as a camp, set up around the copper mines that opened in 1905, though these closed down decades ago, Musina Local Municipality is situated on the northern tip of South Africa in Limpopo Province. It is located on the National Route One (N1) of South Africa, north to Beitbridge in Zimbabwe. Because of its location of Musina Municipality has international links with Botswana and Zimbabwe, through the Pontdrift and Beit Bridge border posts.

On the other hand, Beitbridge border links South Africa through Zimbabwe to all African countries to the north. Beitbridge town is administered by Beitbridge Town Council. When the twinning agreement was signed the town used to be administered by Beitbridge Rural District Council, (Beitbridge TC report, 2015:1). It is located on the southern tip of Zimbabwe, as one of the six

districts in Matebeleland South Province. As per the Zimstats (2012) Census, the town's population was 42 218.

Musina and Beitbridge are located in two different countries, and the dominant language spoken is Venda. The Musina-Beitbridge link is the busiest trans-border post in Southern Africa. According to Musina (SDF 2014/15), Musina-Beitbridge border has an average travellers' population of about 9000 people per day. Figure 1.1 illustrates the location proximity between Beitbridge and Musina. Furthermore, Figure 1.2 and 1.3 show the demarcation of wards that fall under either municipality. Figure 1.1 shows the proximity of the two border towns which enhanced the signing of the twinning agreement. Beitbridge town is located along the coordinates: $22^{\circ}13'52''S$ $29^{\circ}59'13''E$ / $22.231^{\circ}S$ $29.987^{\circ}E$ whereas Musina is located along the coordinates $22^{\circ}20'17''S$ $30^{\circ}02'30''E$ / $22.33806^{\circ}S$ $30.04167^{\circ}E$. Beitbridge town is 177 meters away from the border post whilst Musina town is 15.6 kilometres away from the border post. An international road traverses the two towns as shown in figure 1.3, from the South African side it is called N1 and from the Zimbabwean side the name of the road changes to A6. In addition to this, what also separates the two towns is the Limpopo River as shown in figure 1.1.

According to Netsianda (2011), Musina and Beitbridge provide an outlet through which approximately 9 000 people pass every day, i.e. 270 000 per month and 3 240 000 per year. During peak periods such as Easter and Christmas holidays, the numbers can soar to about 25 000 per day. It is a major trade route where most goods imported from overseas for countries like the Democratic Republic of Congo, Malawi, and Tanzania pass through. This shows the importance of the two towns as transit routes. There are several commercial items or goods transiting between the two cities but the items differ depending on whether they come from Zimbabwe to South Africa or from South Africa to Zimbabwe. The most common goods transiting between the two towns are clothes, cigarettes, beer and groceries. The Beitbridge TC Report (2011) notes that there are strict custom and immigration activities taking place between the two towns warranting constant checking and verification of travelling documents.

Figures 1.1, 1.2 and 1.3 show the areas which are under the jurisdiction of Musina local municipality and Beitbridge Town Council. Figure 1.1 shows a broader picture, which outlines the proximity of these two local municipalities. Figures 1.2 and 1.3 illustrate how each local municipality is divided into wards. Each municipality has 6 wards each.

Figure 1.1 Location proximity between Musina, South Africa and Beitbridge Zimbabwe.

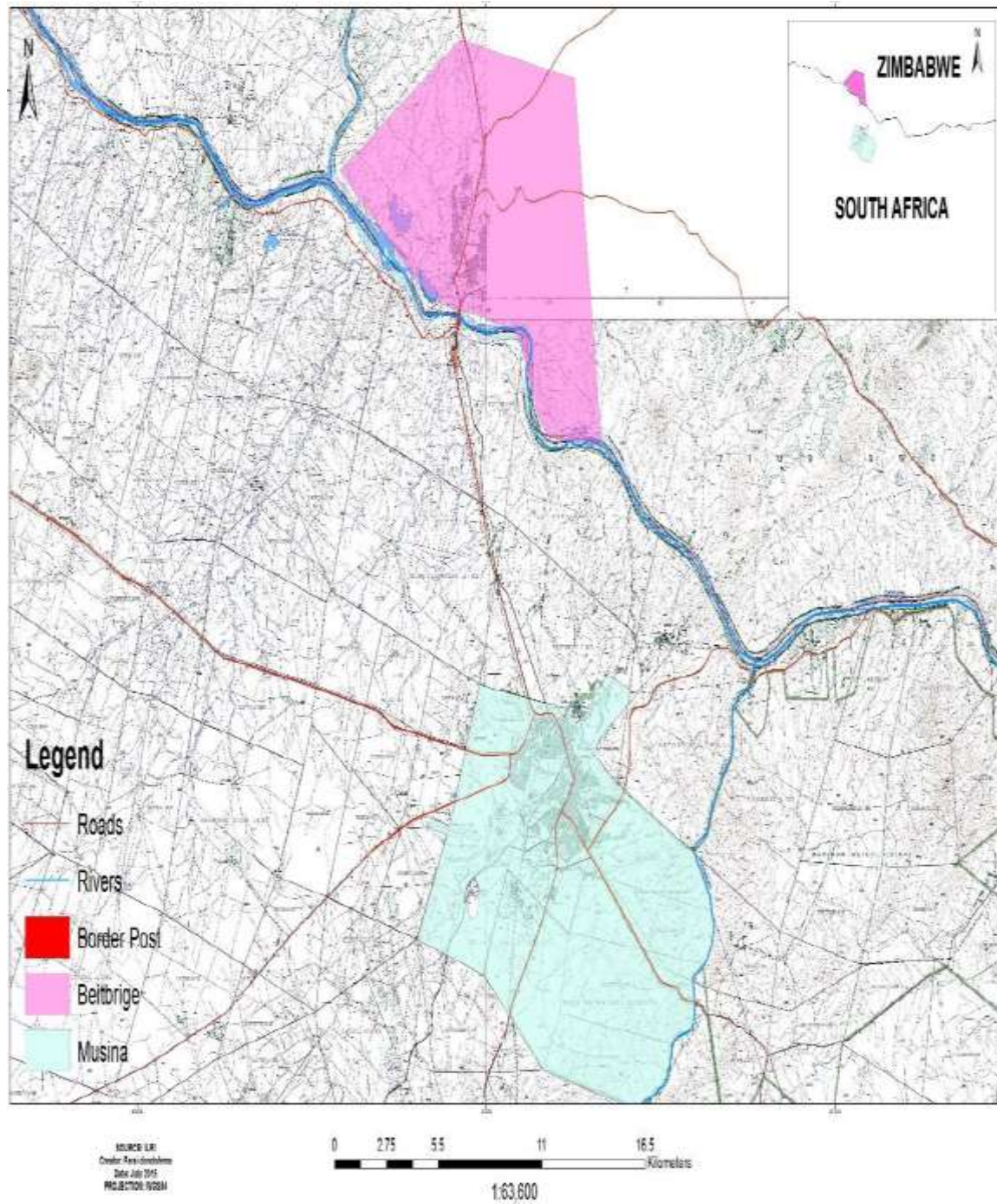


Figure 1.2 Wards of Beitbridge Town Council

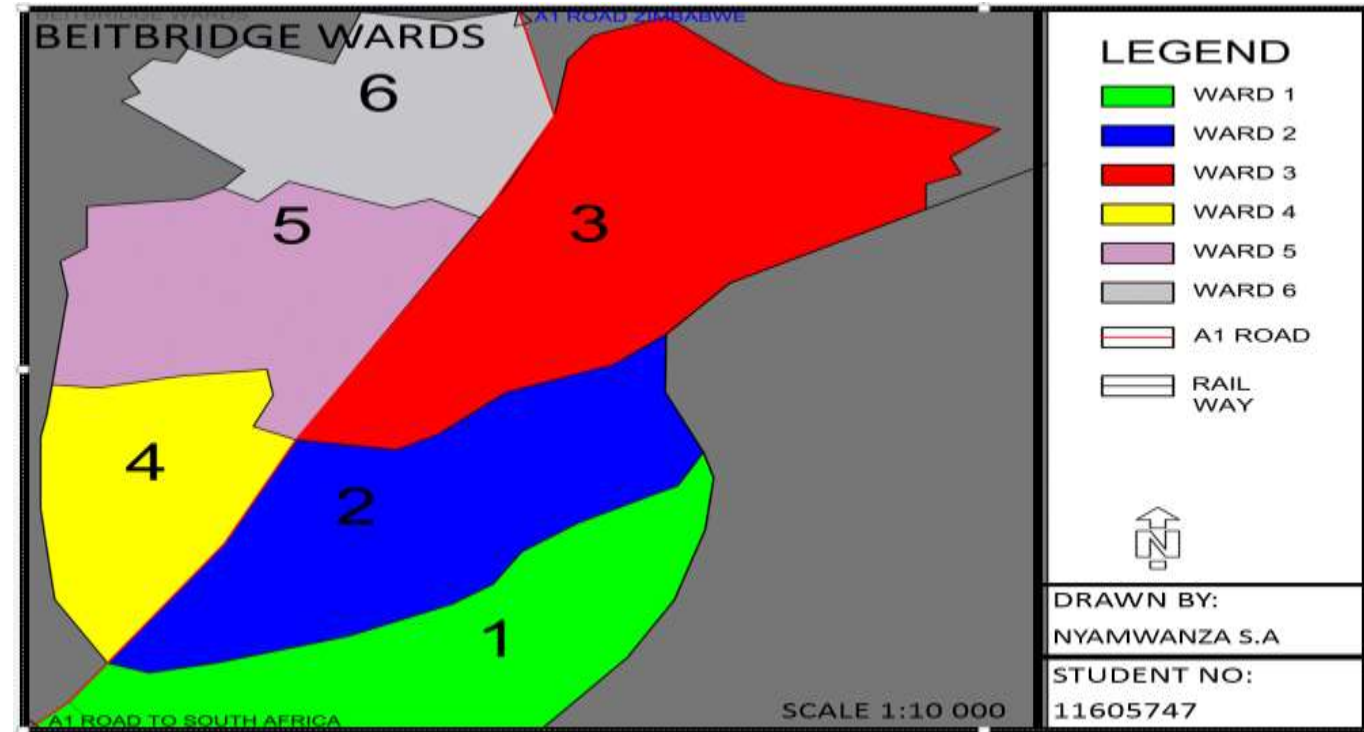
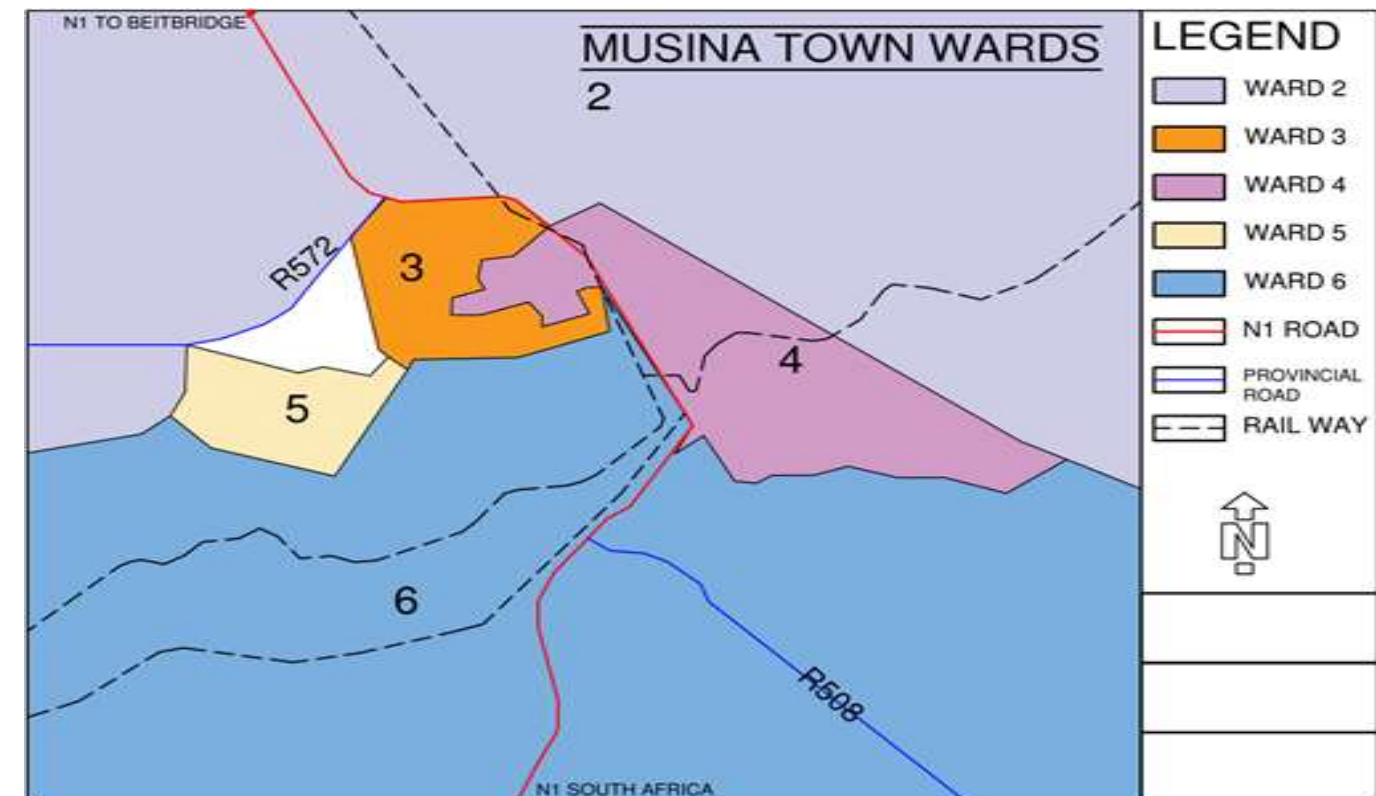


Figure 1.3 Extract of Musina local municipality wards, South Africa



Source Musina SDF (2016), UNIVEN GIS Section, (2016) and Beitbridge TC report 2016

Figure 1.2 illustrates that the Beitbridge town council is made up of six wards. According to BWPIA (2014), Beitbridge wards cover a total area of 8 300 hectares. Out of the six wards shown in figure 1.2, Wards 1 and 2 are low density residential areas; ward 3 is a medium density residential area, and ward 4, 5 and 6 are high density residential areas. Figure 1.3 shows that Musina local municipality is made up of six wards. Ward 1 is the largest which could not be shown on the map. It consists of privately-owned land making up to 59% of the area. The ward demarcations have a vital role to play in the identification of development priorities. Wards 1 and 2 of Musina are rural wards, whereas wards 3 to 6 are urban wards. This is different from Beitbridge Town Council, where all wards are urban.

It was in view of the importance of the two cities that a twinning agreement was signed in 2004 under the auspices of the Trans-Limpopo Spatial Development Initiative (Byukusenge, 2014).

1.3.1 Why did Musina LM and Beitbridge RDC twin?

The establishment of the Musina-Beitbridge twinning agreement can be traced back to the Trans-Limpopo Spatial Development Initiative (SDI) of 2001 that was signed between the Limpopo Province of South Africa and the Matabeleland Province of Zimbabwe in 2001. This inter-country SDI was planned as an economic and spatial development strategy that could unlock investment potential in the development corridor that stretched from Victoria Falls, Zimbabwe, through Beitbridge into South Africa's Limpopo Province through Musina up to Polokwane. Some of the anchor projects identified by the Trans-Limpopo SDI of 2001 include the establishments of the corridor's twinning arrangements between South African municipalities in Limpopo Province and Matabeleland province of Zimbabwe to spearhead economic and spatial development strategies within the corridor. The Musina-Beitbridge MoA was also in line with the Southern African Development Community (SADC) goal of fostering socio-economic, political, spatial planning, security cooperation and integration among member states.

In addition to the twinning justifications, the guidelines for preparing a Spatial Development Framework in South Africa (2014), state that local municipalities should incorporate adjacent municipalities. This is often referred to as horizontal alignment which refers to the systematic exchange of information, plans, and policies between government institutions at the same level. The Regional, Town and Country Planning Act of Zimbabwe (1996), also provides for combination of authorities in town planning. This means that stakeholders should determine if

there is adequate exchange of information between local municipalities with respect to spatial planning. It was during the preparation of the Musina Master Plan, particularly the SDF when Musina officials realised the need to establish a trans-border twinning agreement because, in this case the adjacent local municipality was in another country. The trans-border twinning agreement was meant to be a tool to achieve the objectives of the Musina Master Plan through the synchronization of service delivery and the establishment of Special Economic Zones.

Due to the location of the two towns near the southern tip of Africa, the border post is regarded as the gateway to other African countries. Musina Local Municipality was accorded the opportunity of establishing Special Economic Zones (SEZ) in order to enhance and accelerate economic growth within the sub-region (Musina SDF, 2015). Its strategic importance to the regional road transport system cannot be overemphasised because it is the gateway to Zambia, Malawi and the Democratic Republic of Congo which rely heavily on South Africa's coastal ports. The locational advantages can be summarised as follows:

- The two border towns are very close to each other and only 16 kilometres apart.
- One is on the northern tip of South Africa, whilst the other one is on the southern tip of Zimbabwe.
- Both towns lie on a trans-international route i.e. N1 as it is referred to in South Africa and A6 as it is called in Zimbabwe.
- The population figures of the two towns both fluctuate due to the shifting travellers' population.
- Both towns share Limpopo River as their boundary.
- One language is dominant in both border towns, i.e. Tshivenda language.

In light of the above, Musina LM from the Limpopo province of South Africa and Beitbridge RDC from Matebeleland province of Zimbabwe were considered suitable for the twinning agreement. The two local municipalities took advantage of the international trans-border advantages that benefit the two towns, resulting in a twinning agreement based on the following terms of reference.

1.3.3 Terms of reference of the twinning agreement

The terms of reference of the twinning agreement between Musina and Beitbridge were two-fold, namely:

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- To strengthen multilateral development of economic, trade, scientific, cultural and human relations.
- To assure that firm and friendly relations between the two municipalities will strengthen the good relations between their people and their countries.

The purpose of the MoA was to facilitate the strengthening of friendly relations and cooperation through the exchange and knowledge under eight themes as shown in table 1.1.

Table 1.1: The eight themes for the Musina-Beitbridge twinning agreement of 2004.

THEME	THEME DETAILS
1.Tourism and conservation	-Joint Tourism Development Initiatives. -Management of mobile resources like hunting
2.Environment and Engineering	-Solid waste management -Water quality control
3.Women and children	-Child abuse -Disabled children
4.Education ,arts, sports and culture	-Education, Arts, drama, poetry and culture -Sport -Traditional Dancing and Music
5.Health	-Administer health related issues -HIV/AIDS -Teenage pregnancies
6.Transport and Disaster Management	-Transport coordination -Disaster management -Information and resources sharing
7.Safety and Security	-Joint community based crime prevention strategy
8.Economic and administration	-Administration: Exchange of information, knowledge and expertise between the two municipalities; Easing movement of local people; - Employment creation; Infrastructure development and Foreign direct investments

Source: Extract of the Musina-Beitbridge twinning agreement (2004).

1.3.4 The bilateral agreement context

Out of the eight themes of the twinning agreement, the present study focused on theme number 8, entitled Economic and Administration. This is because the study was streamlined to achieve a logical spatial conclusion focusing on the spatial implications of the twinning agreement. Similarly, due to time constraints, focus was limited to that which has direct spatial development implications for the two towns.

1.4 Statement of research problem

It is not clear how the twinning implementation strategy of the Musina-Beitbridge twinning agreement achieved objectives to the benefit of the two towns. This is because the spatial development cooperation objectives of 2004 aimed to collaboratively address issues of

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infrastructure development, easing the movement of local people, sharing information and expertise as well as promoting foreign direct investments through the establishment of Special Economic Zones. However, from each of the objectives, preliminary investigations revealed that not much was achieved. The implementation strategies to achieve the objectives were inadequate and not clear. This motivated the researcher to first unpack the terms of reference of the twinning agreement to determine how they were implemented by assessing the impact of the strategies used.

In view of the challenges of the implementation of the twinning agreement, the research problems can be summarised as follows:

- Inadequate and decaying infrastructure was identified as one of the key planning challenges that needed to be addressed in 2004 but is still a pressing need in both towns.
- There is no clear evidence of collaborative information and expertise sharing on spatial planning considering that the two municipalities do not have a central secretariat.
- There is no evidence of adequate integration and interpretation of spatial development planning legislations by the two towns.
- There is inadequate funding to implement the terms of reference in the twinning agreement.
- Foreign direct investment to establish Special Economic Zones in both towns is inadequate.
- There is a paucity of academic literature in twinning implementation strategies.
- The twinning strategies' inputs and outputs are inadequate.

1.5 Research aim and objectives

1.5.1 Research aim

The study assesses the impact of strategies used to address trans-border spatial development cooperation using the Musina-Beitbridge twinning agreement as a case study.

1.5.2 Research objectives

1. To examine the impact of the implementation approach used to address inadequate and decaying infrastructure in Musina and Beitbridge;
2. To examine the level of sharing information and expertise with respect to spatial development planning;
3. To determine the challenges of integrating and implementing different national spatial development planning legislations by the two municipalities;
4. To determine the level of inputs that were put in place to implement the terms of reference in the twinning agreement;
5. To examine the outcome of the arrangements made to establish Special Economic Zones (SEZ) on both sides; and
6. To explore a strategic framework suitable to achieve twinning objectives of spatial development cooperation in border towns.

1.6 Research questions

To achieve the research objectives the following research questions were generated:

1. To what extent was the approach used succeed in addressing the problem of decaying infrastructure in both towns?
2. Was the sharing of information and expertise on spatial planning beneficial to the two municipalities?
3. What were the challenges faced in integrating and implementing different national spatial development planning legislations?
4. How adequate were the levels of inputs in implementing the terms of reference?
5. What were the outcomes of the arrangements made to establish Special Economic Zones in both towns?
6. What framework that can be recommended to enhance trans-border spatial development cooperation in border towns using twinning as a strategy?

1.7 Scope of the study

The scope of the study covers the contextual and geographical coverage of the study as follows:

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1.7.1 Contextual scope of the study

The study delineates and assesses the impact of trans-border spatial development cooperation implementation strategy in terms of inputs, implementation, management, actors' participation, outcomes, perceived and actual benefits with respect to the Musina-Beitbridge twinning agreement. Particular reference was given to the spatial development terms of reference and the implementation of the twinning agreement.

1.7.2 Geographical scope

The study focuses on two adjacent border towns of Musina in South Africa and Beitbridge in Zimbabwe. The geographical scope of the area covers six wards in Musina LM and six wards in Beitbridge TC, which, overall covers an area of 766 129 hectares of land.

1.8 Significance of study

Smart cities have recently become focal points of international cooperation (Du Preez, 2011). The development of sustainable twin towns cannot be achieved independently but through working together (UN HABITAT, 2007). Similarly, several trans-border twinning agreements exist across the globe, yet there is a paucity of literature on implementation strategies, inputs, and outcomes of achievements (Jayne *et al.*, 2011). Whether through sister city relationships, twinning, joint ventures or other cooperative initiatives, partnerships play an important role in enhancing community interaction, finding solutions to shared problems, and using limited resources more efficiently to promote sustainability (Bontenbal & Lindert 2009). This study generates an implementation framework towards the implementation of trans-border twinning agreements, not only in South Africa and Zimbabwe, but other countries as well. Similarly, the study addresses, to a certain extent, the paucity of academic literature on twinning implementation strategies. The study generated new knowledge as follows:

- The results from the study contributes to the reappraisal and refinement of trans-border spatial development twinning agreements in terms of inputs, implementation, management and actors' participation to achieve planning objectives.
- The study can assist the local governments of both South Africa and Zimbabwe during policy review processes of trans-border spatial planning regulations.

- The study paved the way for future research projects in trans-border spatial planning by outlining possible future study areas of trans-border twinning arrangements.

1.9 Research assumptions

In this study, it is assumed that initial contextual issues of the twinning agreement were addressed, appropriate planning was undertaken, the required inputs were provided adequately, processes used were efficient and effective, the desired outputs were obtained and targets were achieved. The research findings examined the extent to which our assumptions were actually achieved.

1.10 Definition of key terms

This section defines some of the key terms which are used throughout this study in order to have a common understanding of the use and application of the key concepts.

Town twinning/Sister cities/ (C2C) relationship: “A working relationship between different cities or towns, which involves sharing resources and adapting to each other’s priorities, strengths and weaknesses to achieve a common good,” (Ahmod, 2011:4) .

Trans-border: This refers to a phenomenon crossing or extending across a boundary between two countries (Punungwe, 2007).

Spatial planning: The methods and techniques used in land use management to influence the distribution of people and activities on space (Reimer et al., 2014).

Border towns/regions/communities: This refers to towns, regions or communities that are located close to the boundary of two states, regions or countries (Vallet, 2014).

Impact evaluation survey: An assessment of how the twinning implementation affects outcomes, whether these effects are intended or not (Wardsworth, 2006).

Spatial development cooperation: The act of working together in land use management to collaboratively influence the distribution of people and activities in space (UNECE, 2008).

Special Economic Zones (SEZ): Geographically designated areas in a country that are set aside for specific economic activities, and supported through special arrangements,

infrastructure and systems that are often different from those apply to the rest of the country. Musina Local Municipality and Beitbridge Council were both identified as Special Economic Zones because of their strategic geographic location as the entry port or a gateway to the rest of Africa. (Musina IDP, 2015/2016).

1.11 Chapter summary

This chapter introduced the scope of the study and the general background to the study. In short, the chapter outlined the importance of twinning between municipalities and how it has evolved over time. The chapter then gradually narrowed down to focus on why Musina municipality twinned with Beitbridge Rural District Council as well as the terms of reference of the twinning agreement. The study objectives and research questions were outlined. The study indicated the locality maps of the study areas as well as the scope of the study. Lastly, the key terms were defined and the chapter was concluded.

CHAPTER 2: RESEARCH METHODOLOGY

2.1 Introduction

This chapter presents the research methodology with respect to an impact assessment of trans-border spatial development cooperation between Musina and Beitbridge in South Africa and Zimbabwe. The impact evaluation survey approach and research design were used to unpack the indicators of the impact in terms of the twinning agreement, planning stage, inputs in terms of resources required, processes involved with regard to implementation, outputs indicating results and targets which were achieved.

2.2 The notion of twinning

According to Keiner & Kim (2007), the notion of twinning is a planning technique whereby towns or cities in geographically and politically distinct areas are paired with the aim of fostering human contact and links. Town twinning in this context, aims to enhance capacity building, networking, relationship building, identification of best practices and shared responsibilities between towns. Town twinning arrangements can further the fruitful exchange of ideas across borders in different fields. It is from this concept that the researcher was able to give meaning to the survey approach and the research design.

2.3 Trans-border twinning impact evaluation survey approach

A trans-border twinning impact evaluation survey approach was adopted for this study and it was prompted by the challenges faced by two border towns. According to Hsu (2003), “trans-border twinning survey falls within the ambit of an independent assessment of ongoing or completed projects in the context of town planning involving two towns which may or may not be within the same political boundary but more likely to be in two different countries.” This means that the process of assessment involves evaluating the achievements of cooperation objectives against predetermined criteria, usually a set of standards or management objectives. This included a systematic collection of data on selected indicators to ascertain the extent of progress made towards the achievement of management goals and objectives. The survey was an opportunity to ask critical questions on the outcomes of the twinning agreement with respect to Musina LM and Beitbridge TC. The reason for evaluating the progress of the cooperation was used to assess the extent to which the objectives of the twinning agreement

had been achieved, thereby determining the impact. The study also provided evidence-based research results on what is working and what is not working as well as explaining each circumstance from a research and scientific point of view.

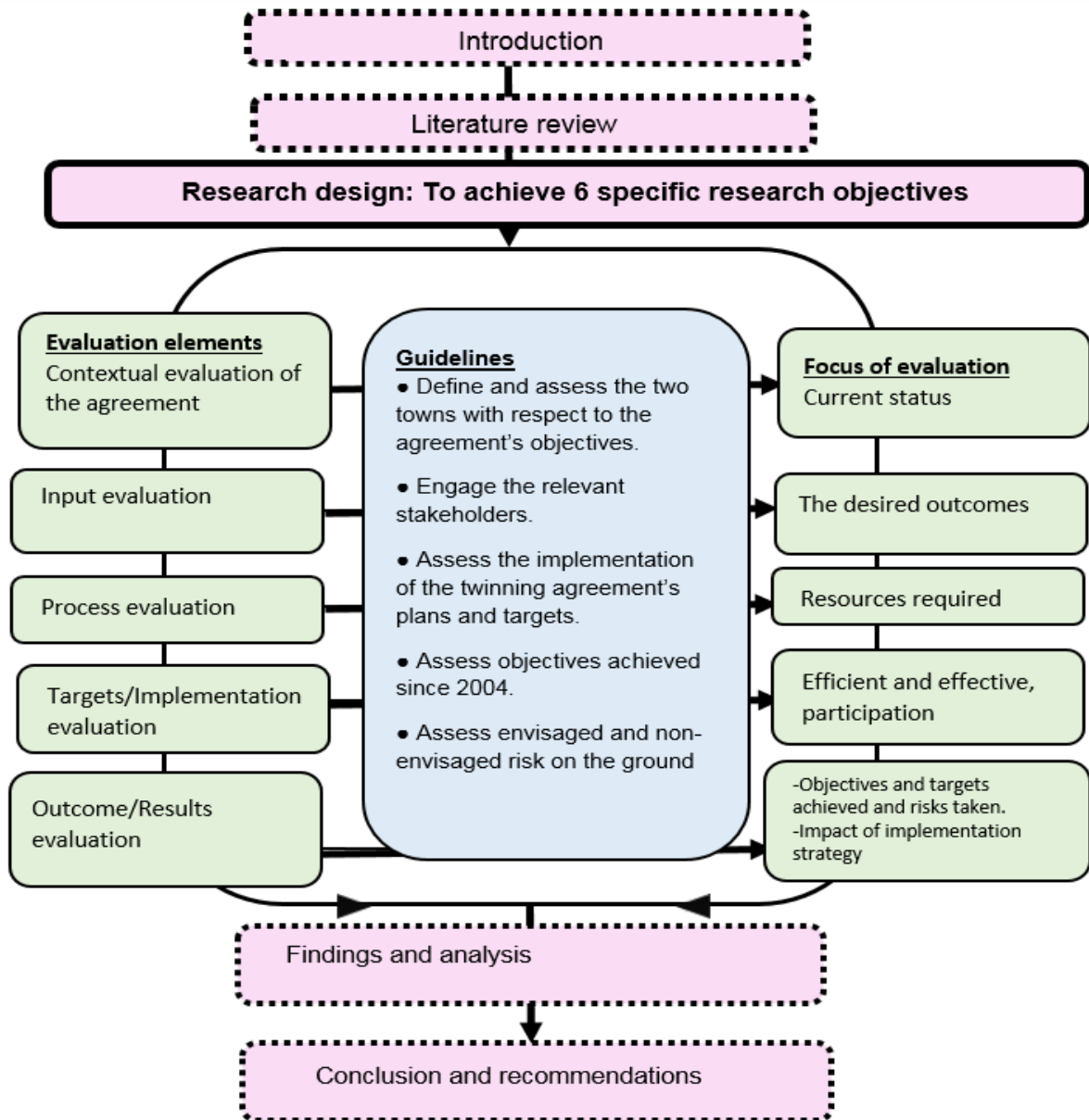
2.4 The research design

For a research involving twinning agreements between two towns, one in South Africa and the other in Zimbabwe, the process analysed the twinning Terms of Reference so as to identify a range of tangible benefits that have been achieved since the agreement was signed in 2004. The aim of the design was to collect data largely from the implementers of the twinning and to get opinions from the potential beneficiaries of the twinning. The study was both qualitative and quantitative, where 14 key informants were interviewed and 385 questionnaires were administered to local residents. This means that the research design had to cover the evaluation of the overall outcome of the twinning process to determine the impact factors. For example, there was a need to focus on whether the strategic aims were achieved and whether the key stakeholders were fully involved in the twinning agreement implementation process. Therefore, the research design centred on the following:

- Analysing the twinning terms of reference and the initial planning, i.e. what were the twinning objectives since 2004 and which resources were put aside?
- Measuring the achieved goals against the stated goals, i.e. did it achieve the goals that were set?
- Measuring the anticipated benefits, i.e. has it achieved societal, political and municipal goals through spatial development cooperation?
- Resources needed now i.e. what do they need now and who needs to do what, when and how?
- Are their planning and implementation processes appropriate and effective?

Different impact indicators and methods of assessment were therefore, developed for different parts of the research to enable us measure specific outcomes as illustrated in figure 2.1.

Figure 2.1: Research design for town twinning agreement



Source: Author's own construct 2016

With respect to the logic of assessment shown in figure 2.1, the important aspect is that the evaluation design should match the type of twinning agreement and the actual outcomes to be achieved. Each research objective was achieved through the evaluation process illustrated above. The guidelines guided the evaluation elements and the focus of evaluation. In short, each specific research objective was guided by evaluation elements, and each evaluation

element was guided by a set of evaluation questions and performance indicators as illustrated in figure 2.1.

2.5 Impact evaluation indicators of the twinning agreement

Each specific research objective was achieved through an impact evaluation of the twinning agreement. Therefore, the researcher articulated six impact indicators and relevant questions specific for this research to guide each specific research objective. Table 2.1 below shows the evaluation elements and questions adopted for the Musina-Beitbridge spatial planning twinning agreement.

Table 2.1: Research objectives, indicators and questions for measuring the impact of the twinning agreement.

Research objectives	Impact indicators	Key evaluation question	Focus of evaluation
Objective 1, 2, 3, 4 and 5.	Contextual issues of the agreement	Where are they now?	Current status
Objective 1, 2,3,4 and 5	Initial planning of the agreement	Where did they want to be since 2004(agreement objectives)	The desired outcomes
Objective 1, 2, 3, 4 and 5.	Inputs	What do they need? Who needs to do what, when and how?	Resources required
Objective 1,2,3,4,and 5	Processes involved	How did they go about? Are their planning and implementation processes appropriate and effective?	Efficiency and effectiveness of participation
Objective 1,2,3,4 and 5.	Outputs	What were the results achieved so far?	Effectiveness and targets achieved so far
All objectives.	Outcomes	What did they achieve? Have they achieved the objectives of the agreement they desired?	Level of achievement of objectives and appropriateness against targets and risks

Source: Author's construct 2016

Table 2.1 above assisted the researcher to evaluate specific, measurable, achievable, and realistic and time bound outcomes of the agreement between Musina and Beitbridge. Each specific research objective was guided by impact evaluation indicators in table 2.1 which illustrates how each impact evaluation indicator is linked to its questions and focus.

2.6 Data collection procedure

The study revolved around the fulfilment of six specific research objectives. This section highlights different techniques and tools that were adopted for the fulfilment of objectives with

respect to sampling, primary data collection tools, secondary data collection tools and data analysis tools.

2.6.1 Sampling procedure

Sampling is the act, process, or technique of selecting a suitable sample, or a representative part of a population for determining parameters or characteristics of the whole population (Frey *et al.*, 2000). The sampling procedure of this study will be discussed as follows:

(i) Definition of target population

For the purpose of this research, we defined two levels of the characteristics of the respondents. The first level of respondents were municipal officials involved in the twinning agreement. The study revolves largely on the Information gathered from the groups of officials based on their roles in the twinning agreement process. The second level of the target respondents was the residents of Musina and Beitbridge located in South Africa and Zimbabwe respectively. The idea was to collect data mainly from the implementers of the twinning, and to collect information on the opinions of the proposed beneficiaries of the twinning agreement. The study was both a qualitative and quantitative of study, where 14 key informants were interviewed and 385 questionnaires were administered to local residents. The total number of questionnaires distributed was determined using the sample size calculator as explained in detail under section (iii) entitled the criteria for sampling.

(ii) Sampling frame

There were two groups of respondents; key informants (municipal officials) and the general respondents, the local residents. The exact number of key informants who participated in the twinning agreement implementation could not be obtained. The initial respondents were identified through literature review whereby the initial participants' names were extracted from the twinning document. Some of the people which participated in the signing of the twinning document were no longer traceable while some had passed on. To identify further participants which were not enlisted on the twinning document, snow-ball sampling technique was used. This technique was used because the initial participants identified further stakeholders whom they knew were involved although they were not enlisted in the twinning document. Consequently, 14 key informants were interviewed. The sampling frame for the local residents in Musina was based on the 2011 population census which indicated a population of about

68 358 and 20 042 households, of which 15 000 consisted of foreign migrants. (Musina IDP, 2014). Beitbridge town had a population of 42 137 and 10 545 households in 2013, (Beitbridge TC Annual Report, 2013). The total number of households for the two towns was 30 587, which was the sampling frame used in the study.

(iii) Criteria for sampling total respondents for questionnaire administration

The sample size calculator stipulates that the minimum sample size for a population which is more than 10 000 but less than or equivalent to 100 000 is 383, at a 95 % level of certainty (Thanulingom, 2000). Hence, 385 questionnaires were distributed, and 347 were returned. The study was a qualitative and quantitative, one focusing on interviewing the implementers of the twinning agreement and the beneficiaries of the twinning implementation. Therefore, 14 key informants were interviewed and 385 questionnaires were administered to respondents.

(iv) Sampling technique

In order to draw out the desired sample of target respondents, the sampling technique was based on two groups of respondents.

Sampling of key informants

Initially the key informants were extracted from the twinning agreement document to confirm stakeholders who participated in the Musina-Beitbridge twinning agreement. Later on, the snowball sampling technique was employed, making use of the initial key informants to identify further key informants who are or were the key actors in the twinning agreement. The 14 key informants from Musina and Beitbridge included the mayors, Chief Executive Officers, technical directors, immigration officers, as well as the directors of spatial planning in both towns.

Sampling of the respondents (local residents)

A stratified random sampling method was used for the administration of questionnaires with respect to the respondents, who are the local residents of Musina and Beitbridge. The researcher used ward proportional representation to select the respondents. The ward demarcations were used as the strata in the two border towns as illustrated in table 2.2:

Table 2.2 Stratified sampling using municipal ward demarcations as strata.

BEITBRIDGE							
Wards	Urban/Rural	Population	Total number of households	NQD	% distributed	NQR	% Returned
1	Urban/ Low density	5 130	1 283	16	12	13	10
2	Urban/Low density	2 276	569	7	5	4	3
3	Urban/Medium density	4 175	1 043	13	10	10	8
4	Urban/High density	10 704	2 676	33	25	30	23
5	Urban/High density	7 555	1 888	23	18	19	15
6	Urban/High density	12 347	3 086	39	30	37	28
Total for Beitbridge	6	42 137	10 545	131	100	113	86
MUSINA							
Wards	Urban/Rural	Population		NQD	% distributed	NQR	% Returned
1	Rural	13 365	4 009	51	20	48	19
2	Rural	16 747	4 811	61	24	54	21
3	Urban	12 760	3 808	48	19	42	17
4	Urban	MUSINA	1 402	18	7	16	7
5	Urban	Total number of households	3 006	38	15	37	15
6	Urban	9 928	3 006	38	15	37	15
Total for Musina	6	68 358	20 042	254	100	234	92
GRAND TOTAL	12	110 495	30 587	385	100	347	89

Source: Author's Field Data 2016, Zim stats (2012) and SA census (2011)

Table 2.2 shows that 385 questionnaires were distributed proportionally based on population proportions i.e., 131 questionnaires in Beitbridge and 254 questionnaires in Musina. Ward. Proportional allocation was used to select number of samples in each ward. The sample from each selected ward was proportional to the household population size of that particular ward. Table 2.2 above shows the total wards for the study areas, the total number of households in each ward and the total number of questionnaires administered per ward. The proportional sample size was derived using the following formula:

$$\text{Sample size of ward} = \frac{\text{Total households per ward}}{\text{Total households of all wards}} \times \text{Total number of questionnaires (385)}$$

For example, Ward 2 of Musina has a total of 4 811 households.

Therefore Sample size of ward 2 in Musina = $\frac{4\,811}{30\,587} \times 385 = 61$ questionnaires

30 587

Since the twinning agreement affects residents in all the wards of Musina and Beitbridge, stratified random sampling was used to select respondents in all wards where each member and household head had an equal chance of being selected. In Beitbridge, the selection of the household heads within the wards was based on the intervals of the street arrangement i.e. for every two streets; the first household head was picked until the total number of respondents required was selected. In Musina urban area, the same procedure was used as in Beitbridge. However, in rural areas, where there are no streets, the researcher used census enumeration blocks to select the households.

2.6.2 Primary data collection tools

Primary data was collected through the administration of questionnaires, key informant interviews, and field observations as follows:

2.6.2.1 Administration of questionnaires

Three hundred and eighty-five questionnaires were administered to the residents of Musina and Beitbridge (Refer to table 2.2 above). The questionnaires consisted of open-ended and closed questions. Closed questions allowed the researcher to gather standard responses that were used to compare the answers of respondents (Gondo, 2012). Open-ended questions allowed the respondents to be flexible to express themselves on matters related to the twinning agreement that affect them. A mixed use approach of the two types of questions was appropriate to this study to assist the researcher to have an insight into all the factors surrounding the implications of the implementation of the twinning agreement and its impact on the residents in Musina and Beitbridge border towns.

2.6.2.2 Key informant Interviews

The 14 key informants who participated in the twinning agreement between Musina and Beitbridge were contacted and selected for interviews. Data collected assisted the researcher to understand factors that were considered and resources that were put aside by different municipal departments during the planning, implementation and management of the Musina-Beitbridge twinning arrangement. It was assumed that the key informants possess the knowledge essential in determining the effectiveness of the terms and conditions of the twinning agreement. Data collected from key informants assisted the researcher to suggest strategies on how to improve trans-border spatial planning through twinning. Based on the

organisational structures of Musina and Beitbridge, local municipalities, key informants from the following offices or departments in both Musina and Beitbridge were interviewed:

- The mayor's office.
- The Chief Executive Officer's office (CEO).
- The Technical Division Director's office.
- The Department of Immigration, Beitbridge border post.
- The Spatial Planning Department.

(i) The mayor's office

The interview with the mayor was mainly to obtain information on the political and policy buy-in of the twinning strategy. This was necessary because mayors as politicians from both sides were able to discuss how the local authorities on both sides agreed with the goals and objectives of the arrangement, the benefits that accrued to both towns in terms of development and the flow of goods.

(ii) The CEO's office

The interview with the CEO assisted the researcher to collect data on the overall implementation and management of the whole twinning arrangement. It was assumed that their views could show how different sectors contributed to the agreement, i.e. spatial planning, financial input, home affairs arrangements, and the technical arrangements. .

(iii) The Technical Division and Logistics Office

It was assumed that this department would provide information on the technical arrangements put in place for the twinning agreement. Examples of the arrangements expected here are fire services equipment, excavators and caterpillars. It was assumed that information on software and hardware put in place for the twinning would be obtained from the technical division. This data assisted the researcher to determine whether resources were set aside for the implementation of projects that emerged from the Terms of Reference of the twinning agreement. In addition, this assisted the researcher to determine the challenges faced by the two municipalities in the implementation process of the twinning agreement.

(iv) The Department of Immigration

It was assumed that interviews with immigration officers would assist the researcher to gather data on the trans-border travellers' management. This addressed issues of shared responsibilities in terms of the infrastructure provided on the border and the visas, on both the South African and the Zimbabwean side. It was assumed that data obtained from the immigration offices would provide information related to expertise on the visa issues, the smooth passage of goods and traffic on both sides of the divide. However, this was not the case, because the key informants from the immigration departments indicated that they were not aware of the twinning agreement. It was important to know if they faced any difficulties and how those difficulties were resolved collectively.

(v) The Spatial Planning Department

The interviews from this department assisted in gathering data for the shared responsibilities in terms of spatial planning. This addresses the issue of examining the implementation of the common Regional Spatial Development Framework on both sides, i.e. most of the objectives dealing with the economic and administrative theme of the twinning agreement are provided by these officials.

The spatial information regarding the planning, implementation and management of plans related to road development, parking spaces, recreational spaces, ablution facilities, immigration camps and Special Economic Zones was obtained from this office. The information collected on these issues assisted the researcher to know if the two municipalities were implementing the details that are common in the agreement.

2.6.2.3 Direct field observations

Field observations were among the primary data collection tools for the study. The researcher carried out site visits including a reconnaissance survey followed by on spot observation of the physical impacts of the agreement. Photographs and maps aided to capture the data collected during the field visits. Data collected during field visits assisted the researcher to verify some of the data collected through the administration of questionnaires and key informant interviews. The field observations were based on the objectives of the spatial planning theme goals, checking the progress on Special Economic Zones, renovation of dilapidating infrastructure, sharing ideas on service delivery issues and easing the movement of people across the border post.

2.6.3 Secondary data collection methods

Secondary data was collected by reviewing journals, books, government documents, municipal legislations, documentaries and articles relating to twinning as a trans-border spatial planning technique as follows.

(i) Government documents

Various government documents from both Musina and Beitbridge were consulted for the purpose of this study. Documents relating to trans-border spatial planning from national to local levels were reviewed. Local Integrated Development Plans, Spatial Development Frameworks and municipal budgets of Musina LM and Beitbridge TC were used to extract data related to trans-border spatial planning. From these documents the researcher was able to understand how the issue of twinning was incorporated at all levels of government administration in terms of the policy framework and whether funds were made available. The government documents informed the researcher on different responsibilities of the national, provincial, regional and local government with respect to trans-border spatial planning.

(ii) The Common Regional spatial development Plan of Musina and Beitbridge

It was assumed that as part of the implementation plan, a Regional Spatial Development Framework was established by the two municipalities. The Common Regional Spatial development Plan for both Musina and Beitbridge towns was analysed to understand the spatial implications of the plan and expected outcomes with respect to the twinning strategy. This assisted in examining the collective implementation of the common Regional Spatial Development Framework on both sides and how expertise on trans-border land uses was shared.

(iii) Use of Acts of Parliament

Various Acts of parliament were consulted to explain the spatial planning environment within which the two municipalities exist to examine the implementation of twinning policies and regulations. Sections of the constitutions of South Africa and Zimbabwe were assessed to outline how national governments supported the twinning strategies. The parallel legislations of spatial planning in South Africa like the Development Facilitation Act 67 of 1995 and SPLUMA of 2013 were also assessed to understand how they account for trans-border spatial planning. Sections of the Regional, Town and Country Planning (RTCP) Act 29 of 1996 (under

review) were assessed to understand which aspects of the legislations were used in Zimbabwe. Data collected here provided the researcher with guidelines on how the two towns were able to integrate different legislations collectively to implement the twinning Terms of Reference.

(iv) The use of maps

Secondary data sources such as maps were used. This data aided in locating the study area and wards, as well as depicting the physical characteristics of the area and the households in different wards for the administration of questionnaires. SDF maps and cadastral prints assisted the researcher to appreciate how the land uses of Musina and Beitbridge have changed over time in relation to the implementation of the twinning agreement.

(v) Books, dissertations, journals and manuscripts.

Several textbooks were reviewed for the purpose of understanding the history, evolution, and theories of twinning as a technique for trans-border spatial development cooperation. One of the books which was published in 2011 by Jayne *et al.*, is entitled, "Worlding a City: Twinning and Urban Theory". The book outlines how twinning has evolved and how researchers have tried to provide theoretical frameworks on it. Dissertations, journals and manuscripts related to the phenomenon of twinning assisted the researcher to appreciate how trans-border twinning has evolved over time. Several reports from the Council of European Municipalities and Regions (CEMR) were accessed because they contain publications on town twinning for different periods. Data collected here provided the researcher with different perspectives on trans-border planning and previous studies as well as providing the theoretical framework surrounding trans-border twinning agreements.

2.7 Validity and reliability of data

Questionnaires were designed in a logical way and a pilot test was conducted with a few respondents before actual fieldwork. The interviews were carried out with the aid of an interview guide. Through acquisition of data from various sources, and ethical clearance the reliability of data and findings was enhanced.

2.8 Data analysis and presentation

Both primary and secondary data was collected and analysed using quantitative and qualitative data analysis methods. Data is presented in the form of tables, bar graphs, charts, pictures, maps and explanations. Data was be analysed and presented as follows:

2.8.1 Qualitative data analysis

The study was largely a qualitative study, based on the 14 key informant interviews. Thematic Content Analysis (TCA) was used to analyse qualitative data. During the analysis, the researcher identified patterns across the deductive data (Clarke, 2006). The researcher grouped and distilled data from the texts into a list of common themes from the interviews in order to give expression to the communality of voices across participants. The data analysed here provided explanations on the *status quo* of the twinning implementation and enabled the researcher to understand the experiences of people, including hidden interpretations of the context of the twinning between Musina LM and Beitbridge TC. A summary of the qualitative data analysis process is provided in the table below:

Table 2.3: Summary of the six phase thematic analysis process which was undertaken

Phase	Process
1. Becoming familiar with the data	Identifying meanings and patterns from the interviews.
2. Generating initial codes	Coding the patterns.
3. Searching for themes	Sorting the coded patterns into potential themes
4. Reviewing themes	Developing, reviewing and refining data themes
5. Defining and naming themes	Linking data with themes and naming the themes
6. Producing report	Presenting the themes, final analysis and writing the data analysis report

Source: (Braun & Clarke 2006)

2.8.2 Quantitative data analysis

To a lesser extent, the study was also quantitative in that it incorporated the responses of 347 local residents. Quantitative analysis of data was facilitated by the use of the Statistical Packages for Social Sciences programme, version 23, (IBM SPSS 23) to analyse the 347 questionnaires from the local residents of Beitbridge and Musina. This software was used for data entry and presentation of information using graphs and charts. This type of data analysis was chosen because it provided a description of patterns of trans-border twinning implementation strategies supported by relevant tables, graphs and charts. The data collected was useful for descriptive statistics. It provided a snapshot of the twinning implementation

assessment statistics for the study area. This was aided by the use of maps and photographs to visually illustrate data generated. Maps were used to visually illustrate the spatial location and physical characteristics of Musina and Beitbridge and to appreciate how the land use management of the study area evolved over time with respect to the twinning agreement.

2.8.3 Ethical considerations

The researcher obtained an Ethical Clearance letter from the University of Venda. The researcher sought the respondents' permission to conduct the study. The respondents were provided with sufficient information to make informed decisions on whether they wanted to participate in the study or not. This encouraged the respondents to participate without fear. The findings of the research are reported fairly and accurately. The findings are available for academic purposes only.

2.8.4 Goal achievement matrix

A summary of the research objectives, questions, data collection tools, sampling methods, data analysis tools and expected outcomes is illustrated in table 2.4 below in the form of a goal achievement matrix.

Table 2.4: Goal achievement matrix

RESEARCH OBJECTIVES	CORRESPONDING RESEARCH QUESTIONS	DATA COLLECTION TOOLS		SAMPLING METHODS	DATA ANALYSIS AND PRESENTATION TOOLS	OUTCOME
		Primary	Secondary			
1. To examine the impact of the approach used to address inadequate and decaying infrastructure in Musina and Beitbridge,	1. To what extent was the impact of the approach used to address inadequate and decaying infrastructure in both towns?	-KII --Participatory observation -Questionnaires	-Journals, newspapers, Acts, Rules and legislations.	Random Stratified	-SPSS to generate graphs	-The status quo of the twinning agreement with respect to spatial development cooperation. -The desired outcomes of the twinning agreement -The resources required to implement the twinning objectives -The level of efficiency and effectiveness of stakeholder participation, targets achieved; -Level of achievement of objectives of the against set targets and risks
2.To examine the level of information and expertise sharing with respect to spatial development planning,	2.Was the sharing of information and expertise on spatial planning beneficial to the two municipalities?	-KII -Questionnaires	-The MoU -Twinning reports	-Snowball	-SPSS -Thematic mapping -Descriptive text	-The status quo of the twinning agreement with respect to spatial development cooperation. -The desired outcomes of the twinning agreement -Level of achievement of objectives of the agreement's appropriateness against set targets and risks
3.To determine the challenges of integrating and implementing different national spatial development planning legislations by the two municipalities,	3.What were the challenges of integrating and implementing different national spatial development planning legislations?	-KII	-The twinning agreement document	-Snowball	-SPSS	-The status quo of the twinning agreement with respect to spatial development cooperation The desired outcomes of the twinning agreement -The resources required to implement the twinning objectives -The level of efficiency and effectiveness of stakeholder participation; targets achieved so far
4.To determine the level of inputs that were put in place to implement the terms of reference in the twinning agreement,	4.How adequate were the level of inputs to implement the terms of reference?	-KII	-Regional SDF	-Snowball	-Maps	_The level of efficiency and effectiveness of stakeholder participation and resources required -Level of achievement of objectives of the agreement's appropriateness against set targets and risks
5.To examine the outcome of the arrangements made to establish Special Economic Zones (SEZ) on both sides, and	5.What were the outcomes of the arrangements made to establish SEZ in both towns?	-KII -Questionnaires	-Municipal journals _Models -rules and regulations.	-No sampling	-SPSS -Diagrams -Pictures -Graphics	_The desired outcomes of the twinning agreement -The resources required to implement the twinning objectives -The level of efficiency and effectiveness of stakeholder participation; targets achieved.
6.To explore a strategic framework that is suitable to achieve twinning objectives of spatial development cooperation in border towns.	6.What kind of a model can be recommended to enhance trans-border spatial development cooperation using twinning as a strategy?	-KII -Questionnaires	-Municipal journal -Articles -Books	-No sampling	-Tables	- A strategic framework that is suitable to achieve spatial development twinning objectives

Source: Author's own construct 2016

Table 2.4 illustrates how the study's objectives are linked to the research questions, as well as indicating different tools for data collection, analysis and presentation.

2.9 Chapter summary

This chapter outlined the research methods used to collect data in this study. It described the research approach, research notion, data collection instruments, sampling design, and the goal achievement matrix, of the study. The goal achievement matrix summarised the specific research objectives, research questions and the corresponding data collection tools.

CHAPTER 3: LITERATURE REVIEW

3.1 Introduction

This chapter presents the review of relevant literature relating to twinning agreements, covering the concept of town twinning, theories, and experiences of town twinning, legislations, guidelines and frameworks of twinning across the globe. A conceptual framework was derived from the review. The literature review begins by first defining the concept of twinning agreements to put the research theme in its theoretical context. This is followed by reviewing relevant literature on the evolution of twinning agreements across the globe which is illustrated by a diagram derived from Hoetjes (2009). The theory of twinning agreements was linked to the world's system theory as explained by Wallerstein in 1974 in order to illustrate the phenomenon of urban development and why authorities seek to explore twinning to add value to township developments. A city to city management diagram proposed by De Villiers (2009) which explains a step by step approach to planning which can be incorporated. The key success factors of twinning agreements were analysed to show that there have been successes in town twinning agreements and not only failures. The indications for a successful twinning agreement were outlined as described by Connell in 1996. Examples of what gives impetus to twinning were summarised in South Africa and Zimbabwe.

3.2 Concept of twinning agreements

The researcher discusses the concept of twinning under six subheadings. The subheadings include the history of twinning, theories of twinning, and examples of twinning legislations, twinning frameworks, previous studies on twinning as well as best and worst practices of twinning.

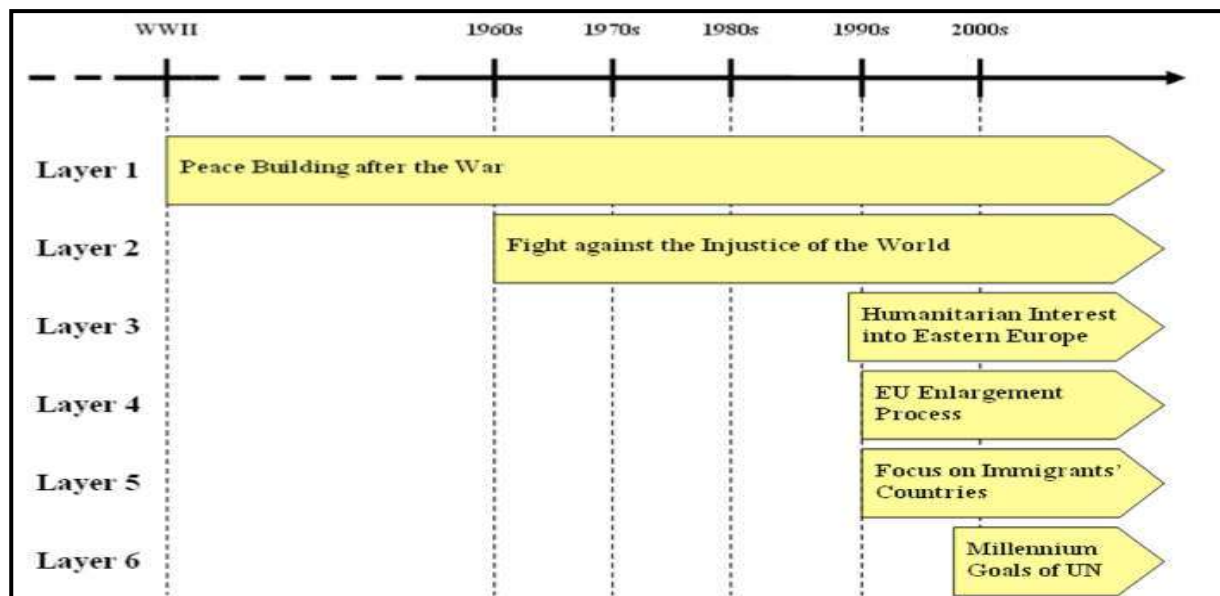
3.2.1 The origin and evolution of twinning

According to the Local Government International Bureau (LGIB) of 2001 in the United Kingdom, the first recorded twinning agreement was established in 1920 between Keighley, West Yorkshire, and Poix du Nord in France. However, after the end of the Second World War, the concept spread rapidly, with British cities forging links with European cities which were devastated by the conflict. Twinning was then seen as an effective tool in the process of promoting peace and reconciliation. In the United States of America, the sister cities

programme traces its roots to 1956 when President Eisenhower proposed a people-to-people citizen diplomacy initiative and so the organisation “Sister Cities International” was formed. It was originally part of the National League of Cities (NLC), but became an independent, non-profit organisation in 1967 due to its tremendous growth and popularity (SCI, 2004:1). European twinning originally was essentially motivated by peace consolidation within Europe. Sister-city relationships followed a similar philosophy of “citizen diplomacy”, but took a global perspective.

Over the years the concept of twinning has changed and “linking has evolved from its origins as a modality for confidence-building between European towns into a global phenomenon encompassing friendship, solidarity, culture, awareness-building, international understanding, humanitarian assistance, sustainable development and, in recent years, good governance” (UNDP, 2000). The participants have also changed. The United Nations Development Programme recalls that when city-to-city cooperation began links were usually between town halls. They were led by political representatives consisting largely of high-level visits between the twinned towns, supplemented by cultural and sporting exchanges (UNDP, 2000; 16). Figure 3.1 below shows how twinning has evolved from being a peace-building instrument to a sustainable development tool.

Figure 3.1: The evolution of city twinning



Source: Hoetjes, 2009

As shown in figure 3.1 above, Hoetjes (2009) concluded that the first layer was driven by peace-building after WWII whereas the desire to fight the injustice of the world system in favour of third world countries, dominated partnership agendas in the 1960s (second layer). This was followed by a humanitarian interest into Eastern European countries after the fall of the Berlin Wall, leading to the conclusion of partnership agreements with cities located in that area (third layer). Also, in the 1990s, cities interested in C2C networking drew the attention of Central and Eastern European countries because of the EU enlargement process (fourth layer). Nowadays, twinning objectives are much broader than traditional twinings to include: community development with a focus on meeting basic needs, municipal capacity-building, awareness-raising and encouraging wider community participation. Furthermore, cities have started establishing contacts with municipalities, where their immigrants originated from (fifth layer) (Hoetjes, 2009, pp. 158–159). It is also due to successful intervention by the UN that more city partnerships during the 1990s were not only set up between cities in industrialised countries, but also between cities located in South America, Africa and Asia.

3.2.2 Theoretical framework of twinning agreements

This section highlights some of the theories, models and theoretical guidelines that inform the basis of twinning processes. The theoretical framing of my research is informed by a variety of disciplines as city-to-city cooperation cuts across a range of issues and can therefore be examined using various theories. According to Faulkner & De Rond (2000) cooperation between organisations can be examined fruitfully from a wide range of theoretical stand points. These can be classified under collective action theories. However, theoretical constructs depend on the motivation of twinning, whether it is for economic, spatial planning or political reasons. More interestingly, twinning is an evolutionary process which challenges researchers to continuously scan the environment for theoretical constructs which are problem-specific. The researcher will explain the globalisation theories, twinning implementation, guidelines and frameworks that inform city to city twinning as follows:

3.2.2.1 World Systems theory and twinning

Wallerstein's world systems theory (1974) influenced Friedmann's world city hypothesis (1986) and Sassen's global city theory (1991). While Wallerstein focused on the interconnectedness between nation states in the capitalist structure, Friedmann and Sassen expanded this to an urban setting, where they saw cities located in the global North as having

a dominant position in the global economy. Brown *et al.* (2010: 13) argue that world systems theory is “explicitly transnational” and concerned with “the spatial dynamics of uneven development”. These transnational and development characteristics are embedded in city-to-city cooperation experiences. Grant (2009: 16) argues that by consistently focusing on cities in the global North, especially North America and Europe, world city literature is diminishing its overall theoretical relevance. It therefore, does not adequately reflect the urban experience in the global South (Grant, 2009). Beaverstock *et al.* (2000: 45), on the other hand, are also critical of “world city” literature because it does not adequately address world cities’ “relations to one another”. However, Grant (2009: 11) concedes that Johannesburg is often the only city in the global South that tends to be seen as competent to cities in the North.

3.2.2.2 Cities as interdependent networks

The theme of increasingly interdependent and networked cities is explored in ‘world city network analysis’ which evolved from world-city and global-city theories. This network analysis examines urban connections from a global perspective, a departure from city studies that had previously been specifically concerned with national urban systems (Brown *et al.*, 2010). While the world-city network analysis sees cities as “highly concentrated command points in the organisation of the world economy” (Brown *et al.*, 2010: 15), these points are connected in an “interlocking network” in the world economy (Brown *et al.*, 2010: 14). Brown *et al.* (2010) argue that globalisation can be understood in terms of world city network analysis and global commodity chain analysis, and can be used to examine transnational spatial relations. Beaverstock *et al.* (2000: 123) examine world cities as areas whose “transnational functions materially challenge states and their territories”. Furthermore, it was alluded that cities are no longer isolated but intertwined in a “world of flows, linkages, connections, and relations”.

3.2.2.3 The concept of collaborative arrangements in twinning

The concept of collaborations in city management has another significant theory that frames this study, namely the urban regime theory (Mossberger & Stoker, 2001). This theory has been used to describe the public-private partnerships, as well as to examine local urban governing coalitions (Mossberger & Stoker, 2001). They add that in the urban environment, “regime analysis views power as fragmented and regimes as the collaborative arrangements through which local governments and private actors assemble the capacity to govern”. This fragmentation is largely due to the “division of labour between the market and the state.”

3.2.2.4 Co-operational aspects of twinning by Hoetjes 2009

Hoetjes (2009) proposed an approach to municipal twinning which he termed the 'learning theory'. The learning theory falls under the class of collective action theories of development planning. Learning theory revolves mainly around the questions, "are twinning partners learning from each other?" and "do they communicate effectively?" The theory focuses on co-operational aspects such as planning, inputs, implementation, outputs and targets achievement. Hoetjes (2009) explains that on each and every co-operation aspect, twin towns should learn from each other. The basis of this theory is that twinning is a win-win situation where all partners must benefit. The cooperation aspects are crucial for the realisation of the anticipated effects.

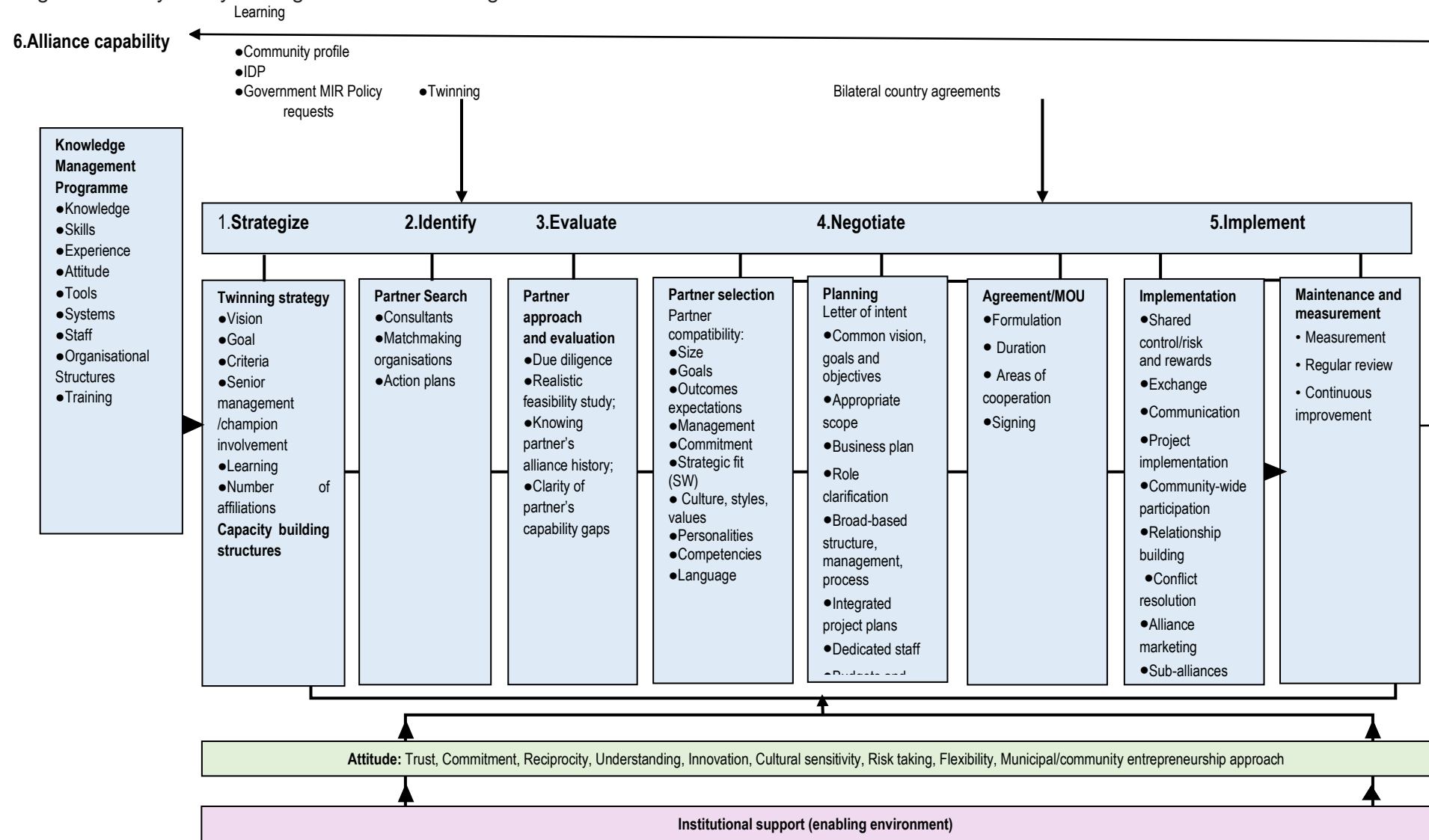
3.2.2.5 Concept of city to city management model, 2009

De Villiers' study on twinning has been referred to as ground-breaking in the discipline of Spatial Planning, (USB 2008). De Villiers (2008) proposed a management and planning model to be used by municipalities involved in municipal twinning. This model consists of six steps namely: strategy formulation, identification of potential partners, evaluation and selection of potential partners, negotiation of the alliance and agreement, implementation, and the embedding of knowledge which leads to alliance capability and continued alliance success. De Villiers operationalises this model. Each step has several sub-steps. Deriving from the alliance literature he incorporates supporting attitudes into the framework such as trust, cultural sensitivity, and flexibility, among others. The model proposed six iterative steps in managing and maintaining successful twinning relationships and building alliance capability as follows (Villiers, 2009) as shown in figure 3.2.

- Step 1. Strategise;
- Step 2. Identify;
- Step 3. Evaluate;
- Step 4. Negotiate;
- Step 5. Implement and learn; leading to
- Step 6. Alliance capability.

Figure 3.2 illustrates the model diagrammatically.

Figure 3.2: City to city management and Planning Model



In order to maximize benefits in municipal twinning, DeVilliers (2008) proposes that a municipality should start with this model which follows all the steps. In step 1 ‘Strategize’ suggests that every city which wants to be connected to other cities via partnership agreements needs to formulate a general alliance strategy first of all (i.e. an internationalization strategy) and determine criteria for partner selection. In step 2 ‘Identify’ can follow, which refers to looking for possible partner cities which meet the criteria determined throughout the alliance strategy. Furthermore, those cities have to be evaluated (step 3 ‘Evaluate’), and preferred partners selected (step 4a ‘Negotiate’). This is followed by a negotiation phase and the signing of an agreement (step 4b and step 4c ‘Negotiate’). Afterwards, in step 5 ‘Implementation’ starts. This phase includes the co-operation between the partners (step 5a), and further the maintenance and measurement of the relationship (step 5b). In the end, the city should learn from that process and develop alliance capability through experience, which might influence the city’s alliance management in future. This framework can be seen as an ongoing cycle (De Villiers, 2009, pp. 151–154).

3.2.2.6 Indicators for successful twinning agreement

De Villiers (2008) compiled a list of possible success indicators for a successful twinning agreement implementation. It is based on the evidence found in the literature that the twinning relationship would function more successfully when the factors in table 3.1 are present.

Table 3.1 Indicators of twinning implementation

Factors that lead to twinning success	Indicators
1. Communities that have a twinning strategy in place	Existence of twinning strategy
2 Communities with more alliance experience	Stable political leadership (years council in office) Number of twinings Number of years since first twinning
3 Twinings where positive attitudes are high	Trust; Reciprocity; Commitment; Understanding; Cultural sensitivity; Risk; Flexibility
4 Twinings where community involvement is high	Twinning type (is community involved?) Community actors involved Community awareness of the twinning
5 Twinings with higher levels of contact (exchange and communication)	Actors involved in communication Frequency of communication
6 Twinings with more resources and infrastructure allocated	Budget, Donor-funded or not and Structural arrangements
7 Twinings that followed a structured planning process (from partner selection to business planning)	Existence of formal partner selection process Existence of written business plan

8 Twinings where leadership and management are strong	Professional management available Involvement of twinning champion
9 Twinings that do active marketing	Marketing taking place Level of media exposure of twinning
10 Twinings where the partners have similar characteristics	Possible areas of similarity like Religion(s), Historical background, Goals for twinning, Outcomes, Commitment of management

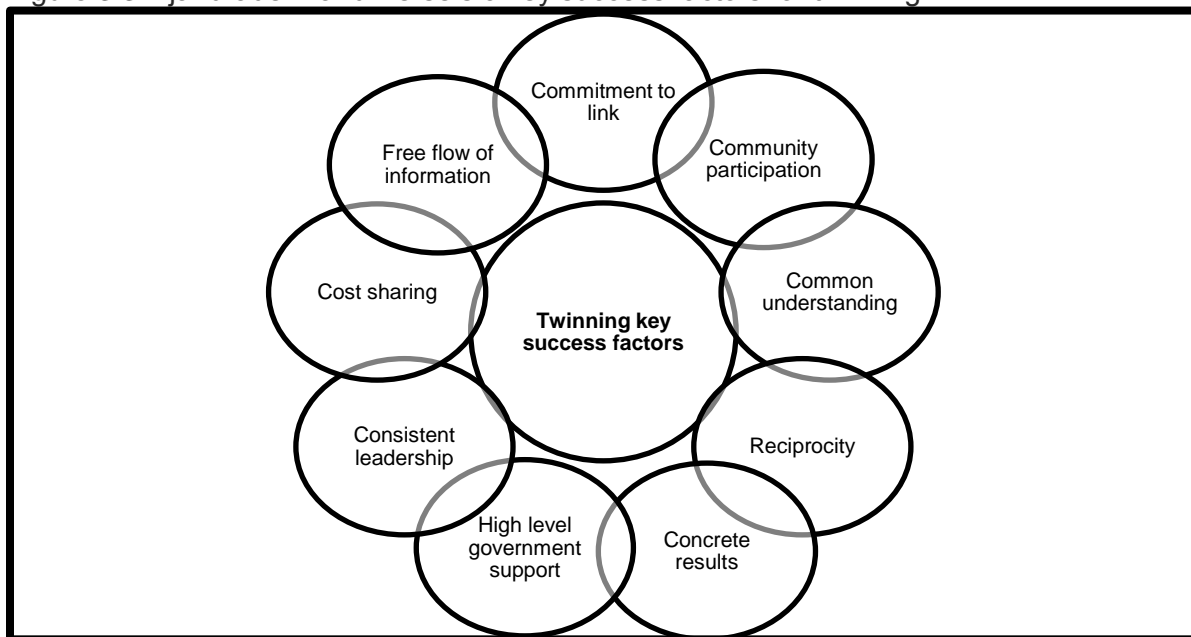
Source: De Villiers, 2009.

Table 3.1 illustrates the possible indicators to take note of whenever a twinning agreement is being implemented. De Villiers (2008) explains that each factor has its own specific indicators as illustrated above.

3.2.2.7 Key success factors of twinning agreements

Tjandradewi & Berse (2011) explain key success factors as illustrated in figure 3.3.

Figure 3.3: Tjandradewi and Berse's 9 key success factors for twinning.



Source: Tjandradewi & Berse (2011:203)

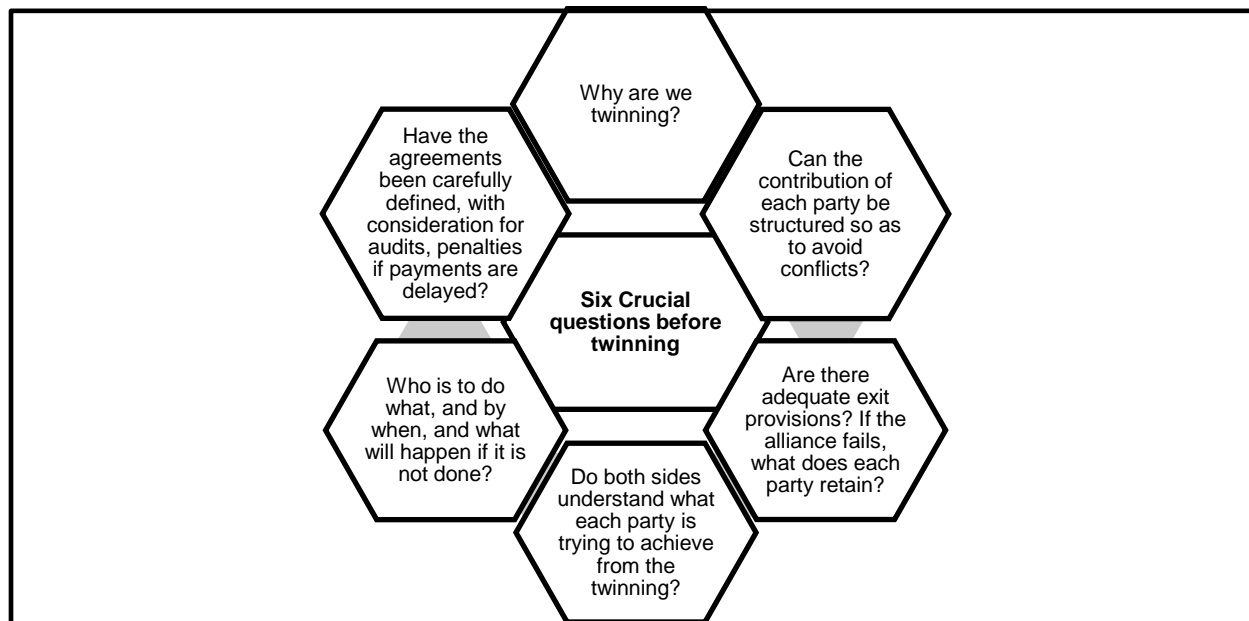
Figure 3.3 illustrates the nine key success factors of city to city relationships, Tjarendwi & Berse (2011). They explain that commitment to the link should, on behalf of both parties, be manifested in time, financial resources and inputs. Community participation in the project between cities

should be at the civil society level within cities. Understanding of the twinning agreement can be expressed through agreed upon goals and mutually understood expectations. Reciprocity is demonstrated in mutual trust and respect from both parties. Tangible outcomes that are related to the objectives of the agreement should be the real results of the partnership. Tjarendwi & Berse, (2011) also highlighted that recognition from the central government is crucial to ensure the sustainable impacts of exchanges through networking and institutionalization of their actions. The vision of senior level officials and decision makers is critical in paving the way for cooperation, mobilizing resources and support from different departments and other institutions. Intensive publicity in local media on the cooperation will increase citizen awareness on the benefits of this type of cooperation. It can even persuade local politicians to inject more funds. Lastly, easy flow of information enhances friendly relations between staff members of partner cities, further building trust and increasing the chances of success even after the cooperation is officially completed.

3.2.2.8: The key questions for drawing up twinning agreements

Connell *et al.* (1996) listed the following questions as crucial when negotiating and drawing up a twinning agreements as shown in figure 3.4 below.

Figure 3.4: The key questions for drawing up twinning agreements



Source: Conell *et al* (1996)

Figure 3.4 illustrates the questionnaire that is supposed to be utilised before signing any twinning agreement. Conell (1996) emphasizes the importance of answering or addressing all six questions in detail. Twinning frameworks and guidelines depend on the implementation strategy of the specific terms of reference of the twinning agreement. Similarly, Clarke (2011) pointed out that a lot of institutional arrangements in many cities do not have clear guidelines and frameworks to implement them.

3.2.3 Policy frameworks that inform twinning at international level

This section outlines international legal frameworks that guide twinning across the world. The section seeks to answer questions like, which policies or institutions have been put in place to buttress twinning at international level? The examples of frameworks discussed are the United Nations Development Programme (UNDP), United Nations Habitat, Sister Cities International, United Cities and Local Government (UCLG), Southern Africa SDIs, European Union (EU) and the SADC Treaty as follows:

3.2.3.1 UNDP as a program that supports twinning

Even at the United Nations (UN) level the importance of twinning has been recognised beyond the 1971 resolution on the subject. Central governments are recognizing the need to give local authorities greater responsibility and resources, because countries will not develop unless their cities develop. The ‘twinning’ of cities, especially northern and southern cities, is becoming more popular as such contact moves beyond the symbolic” (UN, 2001).The United Nations Development Programme (UNDP) is an initiative responsible for supporting countries in finding solutions for global and national development challenges. Advocating the UN member states, developing strategies and monitoring their progress are the core areas of the organisation. The UNDP focuses on the achievement of the UN Millennium Development Goals. Special attention is paid to local capacity, democratic governance, poverty reduction, crisis prevention, environment and energy. The UNDP uses networks and connects countries for knowledge, experience and resource exchanges. Town twinning was identified by the organisation as one important tool for achieving those goals and is therefore, supported by the organisation (UNDP, 2010; Nitschke et al., 2009, p. 136). The United Nations Development Programme recalls that when city-to-city cooperation began, links were almost always between town halls. They were led by mayors and

civic leaders, they were exclusive, consisting largely of high-level visits between the twinned towns, supplemented by cultural and sporting exchanges (UNDP, 2000; 16). Nowadays, the objectives are likely to be much broader than traditional twinings, and include:

- Community development with a focus on meeting basic needs;
- Municipal capacity-building;
- Awareness-raising;
- Development education;
- Matters of governance;
- Strengthening local democratic institutions;
- Encouraging wider community participation.

3.2.3.2 The relationship between UN HABITAT and twinning

Sustainable cities cannot be adequately developed by individual cities, but can be enhanced through alliances of cities working together (UN Habitat, 2007). These can be between and among local governments, universities, businesses, non-governmental, community-based and international organisations. Whether through sister city relationships, twinings, joint ventures or other cooperative initiatives, partnerships play a pioneering role in enhancing community interaction, finding solutions to shared problems, and using limited resources more efficiently, thereby promoting sustainability. UN-Habitat has been working with many other international organisations and associations of local authorities to encourage city-to-city cooperation, such as the World Association of Cities and Local Authorities Coordination (WACLAC), the United Nations Advisory Committee of Local Authorities (UNACLA) and United Towns Organisation (UTO) (UN-Habitat, 2005:1). It also manages a number of programmes aimed at local authorities and cities globally such as the Cities Alliance, which consists of a coalition of cities and development partners committed to address urban poverty reduction and the Urban Management Programme (UN-Habitat, 2004:4). Within the Cities Alliance programme for instance, Johannesburg in South

Africa has formed a partnership with Addis Ababa within the framework of the New Partnership for Africa's Development (NEPAD).

3.2.3.3 Southern Africa Spatial Development Initiatives towards partnerships

In Africa, Spatial Development Initiatives (SDI's) have been aggressively promoted to unlock economic potential in specific spatial locations through the crowding of public sector expenditure and private sector investment. SDI's seek to strengthen trade relations, agriculture, tourism, communication, energy, minerals and upliftment in urban and rural areas (Buzzard, 2001). Several SDI's are underway or being considered, including the Maputo Development Corridor, Lubombo SDI, the Trans-Limpopo SDI, the Limpopo Valley SDI and the Okavango Upper Zambezi Tourism Initiative (OUZIT). SDI's have arisen because of the need to concentrate limited state resources on the provision of hard infrastructure in areas with the highest economic potential and where leverage of private sector investment is most likely to be achieved. Sustainable economic growth is substantially dependent upon internationally competitive economic practice (Phillips, 2002).

3.2.3.4 Sister Cities International's support towards twinning (USA)

Sister Cities International (SCI) is a United States based non-profit organisation which promotes peace through creating and strengthening partnerships between citizens of the US and international communities. It facilitates the international relationships of local communities and their governments. Its framework states that sister-city partnerships have the potential to carry out "the widest possible diversity of activities of any international program, including every type of municipal, business, professional, educational and cultural exchange or project" (SCI, 2003:2). The relationships involve not only the local governments, but also the local communities. Sister Cities International has connected cities, counties and states (SCI, 2010).

3.2.3.5 United Cities and Local Government's contribution to twinning (USA)

The global organisation which represents local government throughout the world is called United Cities and Local Government (UCLG). A particular area of its growth has been the networking among cities and towns across regions and countries focusing on specific development issues (UN, 2004:51). UCLG was recognised by the United Nations as the official representative of local

government globally and its importance to local authorities in the global arena was strongly acknowledged: UCLG believes that local authorities have been playing an important role in achieving global goals through city twinning and partnerships.

3.2.3.6 European Union as a twinning international institution

In Europe, twinning is a very important instrument in forging a united European Union (EU) and financial assistance is provided for this purpose by the European Commission (EC). During the 2002 meeting of European twinned towns in Antwerp, a declaration was made which emphasises the importance of twinning as a form of strategic alliance between communities on that continent (CEMR, 2002). For countries within the EU, town twinning is supported by various EU programmes, among them is the “Europe for Citizens programme” which is part of the union’s Citizens’ Policy focusing on the Union’s enlargement process. Both of those programmes will be described shortly to give an idea on how town twinning can be integrated into large scale programmes. The Europe for Citizens programme seeks to encourage European citizens to be actively involved in the process of European integration to develop a common sense of European identity and to enhance mutual understanding. Besides participatory citizen’s projects, town twinning is explicitly identified as a tool to achieve these goals. Town twinning projects which show a commitment to European integration which build friendships and which promote active participation among citizens are granted EU funds. In 2003 for example, 1328 out of 2136 projects were selected for the programme with most of them taking place in France (347), Germany (338), and Italy (175), EC (2010).

3.2.3.7 SADC Treaty as an international framework that encourages twinning

The SADC 1992 Treaty is committed to a new regional community, reflecting the ‘cultural and environmental realities’ acknowledging that, “many people, land uses and natural resources have always transcended national boundaries in the region”. SADC supports the promotion of liberalised border policies that eliminate obstacles to the free movement of capital and labour, goods and services, and of the region’s peoples among member states. The treaty also states that policies and plans should be harmonised and the appropriate institutions should be created (SADC 1992a, Article 5).

3.2.4 Policy frameworks that inform twinning at national level

Under this section the national policy frameworks that inform twinning will be discussed for both South Africa and Zimbabwe.

3.2.4.1 The context of twinning in South Africa

The importance of twinning is recognised by the South African government as well as by the ruling party, the African National Congress (ANC), which stated that: “South Africa did not benefit much from this long-standing practice during the apartheid era, due to its exclusion, sanctions and international isolation. With the democratic changes in our country and our integration in the world community, many of the cities, towns, municipalities and provinces have entered into governance cooperation or twinning agreements in areas of economic development, exchange programmes in arts, culture, science & technology, development, education, human resource, sports, safety and security” (ANC, 2002). Although local-level twinning and municipal international relations are relatively new in post-apartheid South Africa by 2004 there were about 130 relationships that took place in a rapidly evolving political and legal environment within South Africa. This was also strongly influenced by the context of a new democratic government and a rapidly changing global world. The local government system, the policy towards international relations of municipalities and communities will evolve as more experience about twinning is gained.

i. How section 40(1) of the Constitution of South Africa is in line with twinning

The concept of trans-border twinning falls under forms of international cooperation which have grown dramatically after 1994 when the new democratic government came into power in South Africa. Section 40 (1) of the Constitution of South Africa stipulates that: “In the Republic, Government is constituted as national, provincial and local spheres of governments which are distinctive, interdependent and interrelated.” At the national level, international relations issues are monitored by the Department of Foreign Affairs. However, provinces and local municipalities are allowed to enter into international relations as encouraged by national government through its Policy Framework for Municipal International Relations of 1999, although it has been found to be insufficient to facilitate and regulate twinning effectively in the country (De Villiers, 2005). However, in 1995, the national government proposed to recognise the importance of twinning in

developmental areas such as capacity building, service delivery and infrastructure development. It pledged to:

- Develop a clear policy on twinning agreements and address the coordination of visits and signing of twinning agreements;
- Finalize the International Cooperation Framework Policy to guide proper coordination and monitoring between all spheres of government.

ii. Aspects of the White Paper on Local Government related to twinning

The role of municipalities in South Africa with regards to international relations is also alluded to in the White Paper on Local Government of 1998 (Republic of South Africa, 1998a:65-66) which states that inter-municipal cooperation may take varied forms, including: exchange of learning experiences; sharing of staff, technology and equipment; joint investment projects; and collective purchasing. It also encourages municipalities to engage with municipalities in other countries through a range of mechanisms from informal linkages to formal twinning arrangements and membership of international municipal institutions. The White Paper emphasizes the importance of public-public partnerships to allow for horizontal cooperation between municipalities to exploit economies of scale. It also stipulates that international partnerships can be effective ways of gaining access to external expertise and experience and stimulation of local economic development. Therefore, the White Paper proposes municipal international relations (MIR) as one of the strategies municipalities can follow to achieve their objectives.

iii. How the National Development Plan 2030 of South Africa contributes to twinning

According to the NDP, South Africa's development is affected by what happens in the region and the world. Success depends on the country's understanding and response to such developments. The plan discusses global economic shifts, technology, climate change and African economic growth. The National development plan stipulates that international relations work must endeavour to shape and strengthen the national identity of South Africa to cultivate national pride, patriotism as well as addressing the injustices of the past that were based on race and gender. It also outlines that international partnership should bridge the divides in society to ensure social

cohesion and stability to grow the economy for the development and up-liftment of the citizens of South Africa (Nieuwkerk, 2014).

iv. How the foreign policy of South Africa falls in line with twinning

The strategic plan of the Department of Foreign Affairs highlights that cooperation occurs largely on a bilateral basis and is important in forging closer ties that support cohesion at a political level, particularly within the context of South-South collaboration. Similarly, such cooperation projects a positive image of South Africa. The development of bilateral mechanisms for cultural, scientific, technical, sporting and other exchanges is paramount (Gauteng Province Report, 2003). The priorities of the Foreign Policy of South Africa are outlined in a geographical order as follows: (DPLG, 2003b):

- i. SADC Region
- ii. The African continent
- iii. The Southern Hemisphere (South-South twinings); and
- iv. North-South bridge building

The national foreign policy is based on the concept that justice and international law should guide the relations between nations, (Gauteng Province Report, 2003:2). It also supports that South Africa's economic development depends on growing regional and international economic cooperation in an independent world.

v. How the Municipal International Relations Framework Policy of 1999 speaks to twinning

The Municipal International Relations (MIR) Policy of South Africa (DPLG, 1999:3) defines MIR as: "A link between two or more communities from different nation-states, in which at least one of the key actors is a municipality. Such links may include local non-governmental organisations, community-based organisations or private associations." The range and scope of municipal international relations has expanded rapidly over the past decades. The Municipal International Relations Policy Framework (DPLG, 1999:19) suggests that the priority areas that South African Municipalities should include are local economic development; environmental management; and poverty alleviation.

The Framework spells out the following purposes and objectives of relationships between municipalities:

- i. To facilitate information and knowledge sharing;
- ii. To build managerial and technical capacity;
- iii. To promote a region or city as an attractive location for investment and tourism;
- iv. To develop project partnerships for mutual benefit;
- v. To address regional and global challenges that have local impact but which need to be tackled on a broad basis; and
- vi. To contribute to global understanding, solidarity and peace.

vi. How the Spatial Planning and Land Use Management Act 16 of 2013 is in line with twinning

The act was introduced mainly to replace a multiplicity of parallel policies such as the provincial town planning ordinances and the Development Facilitation Act that were guiding the spatial development of towns and cities of South Africa. Section 52 (i) of SPLUMA stipulates that a land development application must be referred to the Minister where such an application materially impacts on matters within the exclusive functional area of the national sphere as well as international relations and co-operation. However, Chapter 4 of the Act under the section of preparing municipal SDF indicates that municipalities should specify any arrangements for partnerships which will be necessary to implement their Spatial Development Frameworks. Although the issue of international municipal partnerships is not explicitly mentioned it has been indirectly addressed under this section because municipal partnerships can either be local or international, thereby falling under international twinning relations.

3.2.4.2 The context of twinning in Zimbabwe

The capital city of Zimbabwe, Harare, already has active bilateral relations with global cities, such as Nottingham (UK), Cincinnati (Ohio, United States), and Munich (German). Several other twinning arrangements which include relationships with Sacramento (USA), Cairo (Egypt), Columbus (USA) and Lilongwe (Malawi) are inactive and in need of resuscitation. Over 1, 2 million people are estimated to be on the Government's national housing waiting list while the country's

urban areas and other cities are resorting to twinning to improve the shortage of housing. However, twinning has been received with mixed emotions in Zimbabwe. From the preliminary investigations of the study, some residents view twinning as a tactic for town planners looking for beautiful and far away destinations for their holidays. Others declared that they have never seen the benefits of the twinning relationships accruing except on paper. Some of the legislative frameworks that inform twinning in Zimbabwe are as follows:

i. The Constitution of Zimbabwe and how it relates to sister city relationships

According to the constitution of Zimbabwe, Chapter 2 section 34 (2013), the state must ensure that all international conventions, treaties and agreements to which Zimbabwe is a party are incorporated into domestic law. Much ground is covered in the foreign policy of Zimbabwe on how international cooperation must be handled. However, Madhuku (2010) posits that domestic law, which is sometimes called municipal or national law, refers to the body of rules peculiar to a country or state. Therefore, this means that municipal international partnerships like the twinning agreement between Musina and Beitbridge fall under international treaties and agreements. This means that such agreements should be aligned to the Zimbabwean domestic laws. In this case the Urban Councils Act is the one which governs domestic law on international twinning agreements.

ii. How the Foreign policy of Zimbabwe is in line with twinning

With reference to the foreign policy of Zimbabwe, the issue of implementing trans-border twinning and the responsible authorities is not very clear. However, it outlines that the issue of international relations is not a task for the national government only, but for all Zimbabweans. It states that this policy is guided through forging regional, political, economic and cultural partnerships with its neighbouring countries as well as with the Southern African Development community. The foreign policy of Zimbabwe aims to promote regional and pan-African cultural, economic cooperation, political cooperation and integration. Zimbabwe must participate in international and regional organisations that stand for peace and the wellbeing and progress of the region, the continent and humanity (Constitution of Zimbabwe Amendment 20 Act, 2013). It is based on the following principles:

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Twinning Agreement.

- The promotion and protection of the national interests of Zimbabwe
- Respect for international law
- Peaceful co-existence with other nations; and
- The settlement of international disputes by peaceful means.

iii. The link between Green Paper on Zimbabwe's Local Government 2014 and twinning

The Green Paper on Zimbabwe's Local Government 2014, encourages border local governments to engage with municipalities in other countries, through a range of mechanisms from informal linkages to formal twinning arrangements and membership of international municipal institutions. According to this Green Paper, international linkages may provide numerous benefits to Zimbabwe's local government, including facilitating the sharing of international expertise and best practice experience. This is a result of Zimbabwe's political isolation in the past decade, hence very little attention was given to municipal international relations. Councils can also engage with municipalities in other countries, through a range of mechanisms from informal linkages to formal twinning arrangements and membership of international municipal institutions (Mlilo & Moyo, 2014). International linkages may provide numerous benefits to Zimbabwe's local government, including facilitating the sharing of international expertise and best practice experience.

iv. How the Urban Councils Act [Chapter 29:15] of Zimbabwe relates to twinning

The government of Zimbabwe has put into place the necessary legal framework and institutional arrangements to operationalise a local government system. In Zimbabwe, the Urban Councils (UCs) Act accords UCs a planning authority status. UCs prepare master plans and local plans for their areas. Local government associations have been a feature of urban governance for many years. The Act mandates urban councils to apply for membership to local government associations (Machingauta & De Visser, 2010). The local government associations were established to bring together councils to approach local government issues in a collaborative manner. This promotes municipal partnerships, either local or international. According to (UCs) Act, the functions of Urban Councils like Beitbridge Town Council are to:

- lobby government, legislators and relevant organisations on local governance issues;
- promote good management and organisational practices;
- initiate programmes in areas, such as capacity building and community participation,
- facilitate the development of partnership, networking and international co-operation (twinning arrangements, etc.); and
- Represent members in national, regional and international local government.

v. How the Regional, Town and Country Planning Act 1976 of Zimbabwe is in line with twinning

The RTCP Act Of 1976 is the centrepiece of the system of town and country planning and development control in Zimbabwe. The Act is divided into sections which can be analysed under three basic categories:

- Powers to plan;
- Powers to control development; and
- Powers for setting up the administrative framework for planning.

The section for powers to plan is the one that indirectly informs municipal twinning and partnerships. Just like in South Africa, the local municipalities were given the authority to prepare municipal spatial development plans and master plans. However, these plans should be approved by the minister at national level. Part 4, Section 14 of the Act stipulates that in preparing the master plan, the local planning authority shall consult with neighbouring local planning authorities and local authorities and any other statutory or other body whose activities or plans may affect the master plan, with the object of ensuring co-ordination of policies. This means that municipalities are allowed to partner and share ideas with other municipalities which may directly or indirectly impact on the development of their master plans. Unlike the SPLUMA of South Africa, the RTCP of Zimbabwe does not explicitly mention international partnerships.

3.3 How previous studies of twinning agreements differ from the current study

Although very few studies on town twinning have been carried out, some of the significant studies and investigations which were carried out previously are noted here. This helped to understand the different perspectives on twinning by other researchers as well as differentiating the current study from previous studies. Three studies will be discussed briefly as follows:

3.3.1 How the study entitled “Local economic development through twinning in SADC” of 2014 differs from the current study

Byukusenge (2014) carried out a research on cross-border planning using three case studies in SADC and EAC countries. The study was entitled “Findings of local economic development studies using three case studies of SADC and EAC’. It is different from this study because it focused on local economic development in terms of cross-border trading whilst the current study focuses on spatial planning with specific focus on town twinning. Byukusenge’s study was based on general issues, because it gave an overview of local economic development issues in terms of trade across the borders of South Africa, Zimbabwe, Tanzania, Kenya, Rwanda and Burundi without looking at spatial development cooperation.

3.3.2 How the study entitled “A tale of two cities by UN-HABITAT” of 2007 differs from the current study.

UN-Habitat (2007) carried out a study which was entitled “A tale of two cities.” It was a descriptive study which sought to describe the twinning agreements that existed in twelve case studies around the world. It clearly outlined the differences between different types of twinning. Some of the countries studied were South Africa, China, Kenya, Canada, Russia, Zimbabwe and Australia. The study outlined the terms and conditions of the different partnerships that existed between countries, local governments and organisations. Although the Musina and Beitbridge twinning was part of the study, the study only described how the twinning was different from the other eleven case studies, without really presenting what happened on the ground. This is different from the current study because it assesses the planning, inputs and achievements on what is happening on the ground and gives recommendations for improvements.

3.3.3 How the study entitled “Strategic alliances in South Africa” of 2005 differs from the current study

De Villiers (2005), carried out a study entitled “Strategic alliances between communities, with special reference to twinning of South African provinces, cities with international partners.”

The study focused on quantifying all alliances that were in existence by 2005. By then the Musina-Beitbridge twinning was only a few months old. Therefore, its twinning agreement statistics were also generalised among other twinning arrangements in South Africa. The current study focuses specifically on the spatial elements of Musina-Beitbridge twinning agreement after more than a decade, which is a completely different scenario.

3.4 Experiences of best and worst case scenarios of twinning agreements

The combined forces of urbanisation and globalisation are dominant driving forces behind the acceleration in municipal twinning partnerships over the previous years (UN-Habitat 2001). City to city partnerships, through their peer-to-peer exchange of knowledge, experience and best practice, have also been seen as a remedial aid to development as evidence worldwide strongly suggests that the essential bottlenecks to urban sustainability are the lack of local implementation capacity and sound governance, rather than lack of scientific knowledge, technology, funding, or international agreements’ (UN-Habitat 2002). In order to unpack and relate the experiences of twinning agreements that were implemented in different countries the following examples explain some of the best and worst case scenarios across the globe.

3.4.1 Examples of best practices of twinning agreements and lessons learnt

The researcher summarised two examples of best practices of twinning from Portugal and Belgium.

3.4.1.1 Lessons learnt from the Porto-Mindelo twinning agreement of 1992 in Cape Verde

The city of Porto in Portugal and Mindelo in Cape Verde signed a twinning agreement in 1992. The objectives of the twinning focused on urban renewal and restoration of the historic heritage of the cities as explained by Sparke (2002). Since 1992, Porto has been twinned with Mindelo

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(Cape Verde). Cooperation with other Portuguese-speaking countries is a priority for the city of Porto in Portugal. Porto, thus, developed projects to restore monuments built by the Portuguese as well as a plaza. At the same time, Porto financed the construction of a fish market in order to improve public health in Mindelo. The market opened to the public in 1997, allowing the population and vendors to carry out sales under sanitary conditions. The development of a collaborative urban planning policy has helped the development of infrastructure and quality public spaces. The rehabilitation projects attracted tourists, thereby supporting the economic development of the twin cities. This assisted the two cities to generate their own income to fund its twinning agreement.

From this kind of twinning, one can learn that the development of a collaborative urban planning policy, generating own twinning funding projects and taking advantage of the dominant local language can assist twin towns to achieve their objectives.

3.4.1.2 Lessons learnt from the Preizerdaul-San Augustine twinning agreement of 2004 in Belgium

According to CEMR (2007), the two cities of Preizerdaul in Luxembourg and San Agustin in El Salvador signed a twinning agreement in April 2004. The city of Preizerdaul decided to support the financing of a water network project for the city of San Agustin. This cooperation became a reality with the signing of a twinning charter in the presence of the Minister of Cooperation of Luxembourg. On this occasion, the political leaders of the two municipalities expressed interest in the twinning agreement and added more concrete projects with respect to infrastructure development, education and health care. Regular official meetings with stakeholders were conducted. Later on, meetings which involved the wider community were organised in order to raise awareness among Luxembourg citizens about the problems faced by a developing country and to allow the citizens to express their views. According to the CMER (2007), the twinning was accompanied by a dedicated source of financial support. This fast-tracked the project for a water infrastructure network in San Agustin. Indirectly, the funds also helped to address the consequences of the 2001 earthquake which had resulted in destruction of bulk water infrastructure. The project was financially supported by the Ministry of Cooperation in Luxembourg. A delegation from Preizerdaul was sent to El Salvador to witness the necessity and

importance of decentralised aid in San Agustin. The project budget was around 16 500 British pounds per year (CMER, 2007).

From this twinning agreement, one can learn that possible sponsors like political leaders must be involved in the twinning implementation from the start to motivate them to dedicate more funds and to prioritise twinning projects. The other lesson is that regular official meetings must be conducted with both stakeholders and the general public in order to allow everyone to have an equal opportunity to express their opinions. Lastly, it is important for officials from twinning cities to constantly visit each other to track the progress of development projects.

3.4.2 Examples of worst practices of twinning agreements and lessons learnt

Literature on worst practices of twinning agreements varies from one country to the other. In this regard the researcher has summarised examples including countries like Britain, Turkey, South Africa and Germany. A brief summary of the nature of each twinning agreement was provided. At the end of each summary, the lessons learnt were explained. Each case has a separate heading as follows:

3.4.2.1 Lessons learnt from Gauteng Province's s post-apartheid twinning agreements in South Africa

On the provincial level, Gauteng Province had sister city agreements with numerous areas soon after South Africa gained its independence in 1994 (Seedat, cited in Buxbaum, 2014). It signed sister city agreements with Havana (Cuba); North Rhein Westphalia (Germany); Malaysia; Kyoggi (South Korea); and Bavaria (Germany) (Van Wyk, 1997: 52). The Gauteng Province Mayor at that time stated that twinings were sought to promote trade, investment, tourism and deepening the culture of service to communities instead of advancing justified luxury overseas trips for individuals (Kariem, 2006). However, despite all the existing twinning agreements, maintaining active and beneficial city partnerships proved to be a difficult aspect of municipal international relationships, with various factors affecting the implementation of Memorandum of Understanding (MOU) agreements. It was also difficult to prioritise the twinning implementation, especially when a new mayor came into office. Gauteng province lacked dedicated staff who could contact and follow up with partner cities to ensure commitment to objectives (Buxbaum, 2014). Therefore, one

can learn that partnership objectives have been unattainable due to lack of capacity to implement, making them inactive or dormant (Buxbaum, 2014). A twinning agreement requires dedicated staff and stakeholders who are committed to make follow-ups to achieve the stipulated objectives. It is somewhat ironic that city-to-city cooperation partnerships are often designed to improve municipal capacity but cannot be implemented because of capacity issues.

3.4.2.2 Lessons learnt from the Britain and Turkey twinning agreement of 2003

Britain and Turkey signed a twinning agreement in 2003. It was based on a water and sanitation project (Perkmann, 2003). Furthermore, a contract was entered into between a Turkish Public Water and Sanitation Company and a British utility operator to assist the Turkish company in strengthening its institutional capacity. During the implementation phase of the twinning agreement, Turkey started facing difficulties in assigning adequate staff to work with the foreign twin due to lack of English speakers. The Turkish government imposed a hiring freeze law in public and municipal enterprises during the same period. Hence the twinning arrangement was suddenly forced to cease during the project implementation.

The lesson learnt here is that it is important to conduct a proper assessment of the readiness of both twin towns to implement the twinning objectives with respect to inputs and resources available. In this case, a twinning agreement was implemented without conducting a proper assessment of the readiness of the recipient party.

3.4.2.3 Lessons learnt from the Britain and Germany twinning agreement

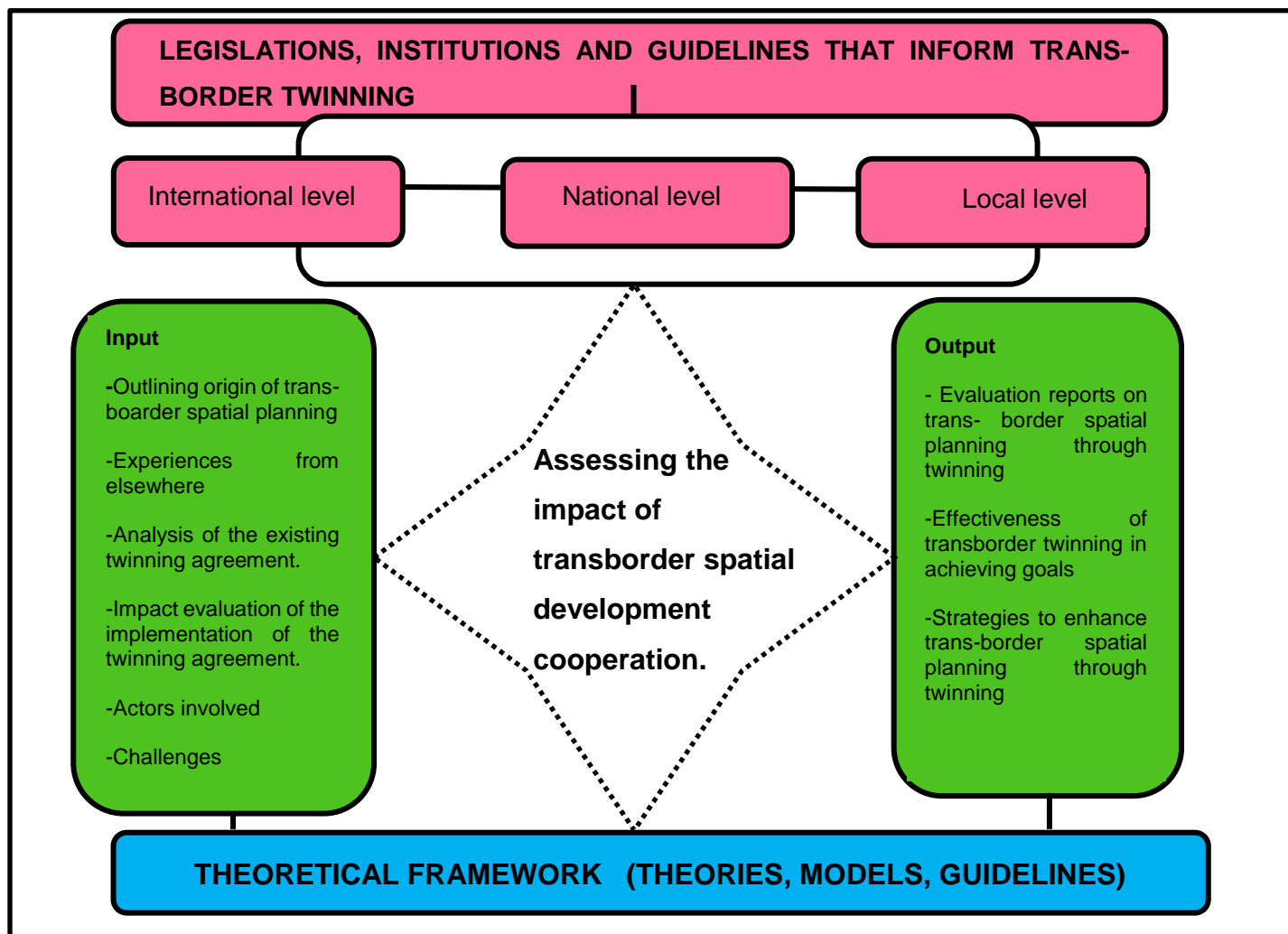
According to Jonson (2012), some towns in Britain had to scrap their twinning arrangements with continental counterparts. In September 2011, councillors in Stortford voted to end local authority support for the town's 46-year twinning arrangements with Frieberg in Germany and Villiers-sur Marne in France. The major argument put forward was that Villiers-sur Marne was not putting any effort into the relationship. It was no longer a twinning agreement of mutual benefits. The mayor of the town announced in the same year that he was scrapping twinning links as a saving for the municipality. This was mainly because most of the politicians were capitalizing on the twinning agreements to justify their luxury overseas trips. We can learn that if twinning parties do not stick to the terms of reference the implementation process will not be a success. If one twin town stops

cooperating, the twinning objectives will not be achieved for the benefit of both. Stakeholders and political leaders should not take advantage of the twinning agreement to further their personal trips as this can jeopardize the success of twinning. Some studies pointed out that such schemes will have to make better use of communications technology in place of physical fact-finding visits if they are to avoid corrupt use of public funds for travelling (Johnson, 2012).

3.5 Conceptual framework

The literature review points to certain commonalities in twinning agreements. These include two towns, institutions from both countries, guidelines from twinning, a corresponding legislation and participation from national, regional and local authorities. Other relevant issues are inputs that can bring about the desired twinning agreement output. Figure 3.1 summarises our perception of the basis for a twinning agreement, which is our conceptual framework.

Figure 3.1: Conceptual framework of twinning agreement between border towns



Source: Author's own construct 2016

Figure 3.1 above illustrates the logic and interrelationship between two twin municipalities which share a common interest. The study was guided by understanding the evolution of twinning, theories, models, legislations, implementation of the twinning under study, experience from elsewhere, actors or stakeholders involved as well as the challenges faced. The output of the study was based on what is on the ground as well as the effectiveness of twinning to achieve its goals. These analyses determined the strategic framework that was suggested in Chapter 6.

3.6 Chapter summary

This chapter presented a review of relevant literature relating to twinning agreements. The literature review covered the theoretical framework of twinning, a brief history of twinning, twinning guidelines, legislations, and previous studies on twinning, best practices of twinning and worst practices of twinning.

CHAPTER FOUR: PRESENTATION OF DATA ON THE PHYSICAL ATTRIBUTES AND SITUATIONAL ANALYSIS OF MUSINA AND BEITBRIDGE LOCAL MUNICIPALITIES

4.1 Introduction

This chapter presents data on the physical and spatial planning attributes in Musina and Beitbridge towns in relation to trans-border spatial development. The chapter begins by presenting an overview of either of the two towns in terms of land uses, population statistics, land ownership, size of the municipal area and their common geographical features. This is followed by detailed explanations of physical attributes, residential land uses, transportation land uses, Institutional land uses and recreational land uses. The influence of the twinning agreement on the land uses was also outlined, where available on each land use. The land uses were also presented in the form of maps, and discussions focused on whether the current land uses were because of the twinning agreement. At the end of the chapter the situational analysis was used to provide a summary of the trans-border twinning gaps that were derived therein. The conceptual framework in Figure 3.1 was utilised to present a detailed summary of inputs and outputs to draw a conclusion on how the twinning agreement influenced the spatial development planning of Musina and Beitbridge.

4.2. General overview of Musina Local Municipality (LM)

Musina Local Municipality is situated on the Northern part of Limpopo Province of South Africa in one of the four local municipalities within Vhembe District Municipality of South Africa. Musina is category B municipality consisting of 6 wards. According to Stats SA (2011) Musina local municipality had a total of 20 042 households and of these 5.6% were located in traditional areas, 36.2% on proclaimed farms and 58% households in purely urban oriented areas. Musina municipal area consists mainly of commercial farms and only 0.08% of the total area is urban in nature. In terms of land ownership, privately owned land makes up 59% of the municipal area. The larger part of National and Provincial Government owned land is located on the periphery of Musina town. This land constitutes 8% of the land holdings of the Musina Local Municipality. Mixed ownership sites among government, the private sector and institutions constitutes roughly 1% of the land ownership of the municipality. The rest of the land around the Venetia Diamond Mine and the Domboni is institutional land which is owned predominantly by De Beers Consolidated Mines and the South African Development Trust. The municipal area covers approximately 757 829 hectares that extends from the confluence

of the Mogalakwena River and Limpopo River in the West to the confluence of the Nwanedi River and Limpopo River in the East. On its southern borders are Tshipise and Mopane and is bordered by Botswana and Zimbabwe in the northwest and north respectively. Of the 6 wards, ward 2 is the largest and is mainly composed of privately owned farms. Ward 1 is the second largest and is also mainly composed of farms. Wards 3, 4, 5 and 6 are clustered together in a small urban area covering 0.08% of the total area (Musina SDF, 2015).

4.3 General overview of Beitbridge Town Council (TC)

On the other side of the Limpopo River, Beitbridge Town Council is situated on the southern part of Matebeleland Province of Zimbabwe. Its proximity to South Africa places it in a potentially advantageous position to benefit from regional trans-border development planning in the SADC Region. The name also refers to the Beitbridge Border Post, the busiest inland border post in Sub-Saharan Africa. About nine thousand (9000) people cross the border on a daily basis, and on public holidays the numbers can soar up to 25 000. The town was founded in 1929 and for many years was the terminus of the international railway line from Pretoria, South Africa, until a continuous rail connection to Rutenga, Zimbabwe was constructed in 1974.

The estimated population of the town is 47 000. Due to the proximity of the town to South Africa, people from the inland districts of Zimbabwe flock to Beitbridge in order to trade while others settle in Beitbridge. According to the climatic regions of Zimbabwe, Beitbridge falls in region 5, it is a low lying area characterised by hot conditions and very low rainfall. Summer is usually hot with temperatures reaching 45 degrees Celsius (2010). June and July are cold months with temperatures as low as 5 degrees Celsius. The region is excellent for cattle ranching where ordinary farmers have herds of a hundred or more.

Beitbridge Town Council comprises 6 wards. All of the wards are urban, unlike in Musina local municipality where the wards are both urban and rural. The six wards of Beitbridge TC cover a total area of 8 300 hectares. Out of the six wards, Ward 1 and 2 are low density residential areas, ward 3 is a medium density residential area, and ward 4, 5 and 6 are high density residential areas (BWPIA, 2014).

Musina local municipality has a population of 20 042 households, whilst Beitbridge has 10 545 households as per the 2012 Census. The difference between the two local municipalities' population can be explained by the fact that Musina local municipality covers both urban and rural areas, whereas in Zimbabwe municipalities are further divided into those that administer

urban areas only and those that administer rural areas only. Hence Beitbridge town Council administers the Beitbridge urban only. Beitbridge has a lot in common with the Limpopo Province of South Africa in terms of culture and other resources such as river systems, labour, commercial and agricultural practices. These ties have helped strengthen the economic development between the two. The location of Musina LM and Beitbridge TC enables trans-border links with Botswana through the Pontdrift and BeitBridge border posts. BeitBridge border links South Africa through Zimbabwe to all North African countries. This makes the border post one of the busiest and characterised by various trans-border issues which influence trans-border development planning in Southern Africa.

4.4 Physical characteristics of Musina Local Municipality (LM) and Beitbridge Town Council (TC).

This section explains the physical characteristics of Musina LM and Beitbridge TC that influence trans-border spatial development cooperation. i.e. physiography, land uses, service delivery issues and how they relate to trans-border spatial planning components for the two municipalities.

4.4.1 Summary of Physiography features of Musina LM, South Africa

The municipal area of Musina is largely flat with the exception of a few prominent terrain features. The visible terrain types are because of the underlying geology (Musina IDP, 2016). No significant terrain features affect general development in the municipal area. However, Limpopo River has served as a national boundary line between the two local municipalities. In terms of geology, Musina municipal area is largely underlain by rock and soil classifications belonging to the Beaufort Group, which is mainly associated with predominantly fossil and coal deposits (Musina SDF, 2016). There is also a substantial number of kimberlite pipes with potential for diamonds, copper and various other minerals. Musina is located in one of the warmest regions of South Africa. Maximum temperatures exceeding 30°C are experienced throughout the municipal area. The Limpopo valley is the warmest with maximum temperatures exceeding 33°C on average. Within the South Africa weather system, Musina falls within the rain shadow of the Soutpansberg. The generally low rainfall across the municipal area has a significant impact on development within the municipality. This restricts agricultural options and has a measurable impact on the soil potential in many areas of the municipality. Musina municipal area forms part of the Limpopo basin that is recognised as one of the primary catchment areas in South Africa. The wetlands in Musina cover an area of 4 403.7 ha. Musina municipal area is classified as a savannah landscape in terms of Acocks

broad classification (Musina SDF, 2016). Predominantly four types of vegetation are found within this landscape, namely the Limpopo Ridge Bushveld, the Musina Mopane Bushveld, the Soutpansberg Mountain Bushveld and the Subtropical Alluvial Vegetation. The Musina municipal area is also home to a number of formal protected areas in the form of nature reserves, conservation areas and national parks. These protected areas play a significant role with respect to conservation as well as tourism. These reserves include the Baobab Tree Reserve, the Hornet Nature Reserve, the Mapungubwe National Park and the Nwanedi Nature Reserve. Collectively these protected areas cover an area of 39 862.8 ha which constitutes 5.3% of the municipality (Musina IDP, 2016).

4.4.2 The summary of Physiography of Beitbridge TC, Zimbabwe

Beitbridge district is one of the driest areas in Zimbabwe and falls under agro-ecological Region (IRT, 2011). Such regions are characterised by very high temperatures of 34°C throughout the municipal area as well as low and erratic rainfall. Because of the erratic rainfall patterns, agricultural production is adversely affected, resulting in food-insecure communities. The Trans-Limpopo Spatial Development Initiative also informed and influenced the two plans of Beitbridge Rural District Council. This is a regional initiative stretching from Polokwane in South Africa to Victoria Falls, promoting inter-country trade and investment to develop the economic potential of the region. The vegetation is predominantly mopane-combretum woodland type. The Karoo sandstones support an *Androstachys* thicket type. Baobab tree population is visibly denser in the area. Shrubs and annual grasses such as *Aristida* species clearly contribute a significant proportion of the grass composition (CESVI, 2005).

4.4.3 Common physiography characteristics of Musina and Beitbridge and trans-border spatial planning

According to the Institute for Rural Technologies (IRT) report of 2011, Beitbridge and Musina share some common physical attributes such as ecology and conservation areas, thus creating a strategic link that might foster trans-frontier tourism. This can enhance the concept of trans-border spatial development planning through the Trans frontier Conservation Area Concept (TFCA). The TFCA concept is used when significant environmental resources are situated adjacent to each other, often making up parts of the same ecosystem, but are separated by international boundaries. The TFCA concept is intended to remove the international boundaries and replace them with joint planning, management and economic development of natural resources. As a result, planning and management of land and natural resources can be co-ordinated. Land and resource use policies can be harmonised and inter-

country movements can be facilitated (IRT, 2011). The twinning agreement did not address this concept. However, a separate Memorandum of Understanding was signed in 2006 among Botswana, South Africa and Zimbabwe, aimed at effectively conserving the natural resources of the area transcending the international boundaries between the three countries, (Greater Mapungubwe Trans-Frontier Conservation Area IDP, 2010). Therefore, there is a need to integrate and share expertise on these two separate memorandums of understanding, as they can work hand in hand to address trans-border spatial planning.

4.5 Land use situational analysis of Musina LM and how transborder development comes in

Musina LM is a second order settlement according to the hierarchy of the Limpopo Spatial Rationale of 2002 which is aligned to the National Spatial Development Perspective, 2006 of South Africa. The major land uses in Musina were not largely influenced by the twinning agreement; instead the land uses were originally set up around the copper mines that opened in 1905, though these closed down decades ago. Musina Town can be described as a second order settlement due to its relative high level of economic activity and rendering of services to local and surrounding communities, (Musina IDP, 2015/2016). The current land uses in Musina are illustrated in Appendix 1.

From Appendix 1, we can see that Musina's land uses are concentrated in wards 3 to 5 only which are urban settlements. The larger of portion of land comprises of privately-owned farms as illustrated by the grey colour above. There is a national road which passes through the town to join with the one from Beitbridge town. The settlements of Musina are escalating because over the past ten years Musina town showed a bigger number of immigrants (Musina SDF, 2011). The potential of these settlements for future self-sustainable developments is extremely limited. Tshipise can be described as a 3rd order settlement (local service point) due to its function in terms of limited service delivery to the surrounding commercial farming areas, tourism attraction and nature conservation. Musina local municipality comprises of various land use activities, i.e. residential, businesses, institutions, transportation etc. Two industrial nodes are found in Musina i.e. Musina Ext 1; Musina Ext 3 and Musina Ext 27 Township; industrial node 1 is located to the south of Musina, west of the N1. The industrial area has rail facilities and caters mainly for heavy and noxious industries. The spatial development comparative advantage for the municipality is that it contains a number of nature reserves, conservancies and game farms, which is an advantage over other municipalities. Musina was identified as a Special Economic Zone (SEZ) in the Special Economic Zones

policy in 2002. An SEZ should be strategically located in close proximity to transportation linkages, large industrial, commercial and residential centres. In the case of Musina, the location of the Beit-Bridge SEZ characterises it as a gateway economic zone.

Since 2012 there were plans by Musina Local municipality to establish the Musina to Africa Strategic Supplier Hub Initiative (MUTASSHI) project, which is the development of special economic zones and a logistics hub in both Musina and Beitbridge. . The focus area of the MUTASSHI initiative was largely directed at the activity corridor between the town of Musina and the Beit-Bridge Border Post. The proposed development was to include the establishment of a regional shopping centre, warehouses, office buildings and industries. The directive of the initiative was to mirror the development on the Zimbabwean side, making use of the twinning agreement between Musina and Beitbridge. However, not much has been achieved to date. The detailed land uses will be discussed under residential, transit management and service delivery as follows:

4.5.1 Residential land uses and the influx of immigrants in Musina

As shown in Appendix 1, Musina's urban areas are the most densely populated settlements, mainly because all the other land consists of privately-owned farms. There was an increase in the overall number of households recorded by Census 2011 in Musina compared to 2001. By 2001 the Musina local municipality by 2001 census recorded the total number of households at 11 577 and by 2011 census it recorded 20 042. The economic growth draws people from Musina's rural areas and Beitbridge, Zimbabwe, to urban parts of the municipality which results in population growth. The huge influx required that the municipality increases its housing provision as well as other basic services which enable sustainable human settlements. The housing provision challenge is not only experienced in Musina town clusters, but also the surrounding rural areas. There is an alarming crisis for housing development in the municipality. This issue was part of the infrastructural collaborative plans of the twinning agreement since the town is mostly congested by Zimbabweans coming for business purposes. However, not much has been achieved, especially because Musina local municipality has its own housing backlog for local residents (Musina IDP, 2016).

4.5.2 Trans-border transit management in Musina

We observed that although the twinning agreement, aimed to address the trans-border transit management across the border post, it did not achieve much. Instead, trans-border transit management between Musina and Beitbridge was being monitored by the Beit Bridge

Efficiency Management System which was a separate system from the twinning agreement (Beit Bridge Border Post Progress Report, 2010). This programme is part of a wider COMESA-EAC-SADC Tripartite work programme which seeks to enhance regional economic integration through improved trade facilitation. Musina Local Municipality has road, rail and air transport infrastructure facilities linking the economic centres (Musina IDP, 2016).

One of the key issues affecting the community and infrastructure in the town of Musina is the movement of large trucks through the town. These trucks are too large and the available road infrastructure is not capable of handling these excessive loads. Furthermore, these trucks cause congestion in the Central Business District and the noise levels are a nuisance to the community. Musina Local Municipality has a backlog of about 20 km of gravel roads that have to be tarred and 25 km backlog of tar roads that have to be upgraded/re-surfaced. Apparently there is only one formal bus rank, with international buses not having parking space. An extract of the Musina local municipality road network is illustrated spatially in Appendix 2.

Appendix 2 illustrates an extract of the status of roads in Musina as well as a railway line that passes through the town. The main access route defined through the area is the existing N1, which changes to A6 when we cross over to Zimbabwe. The purpose of the road is for through traffic and as an access road to the municipality from the adjoining municipality to the South and Zimbabwe to the North. The major Freight Transport roads in Musina are the N1 National Road from Polokwane to Beit Bridge; R521 from Vivo to Pontdrift Border; and R572 from Musina to Pontdrift. Two corridors show that Musina local municipality is playing an important role in linkages in South Africa and the N1 corridor is being served by the railway freight. There is a 597 km line which formed part of the former Northern Transvaal Mainline extending from Pretoria to Beit Bridge via Musina, (Beitbridge TC Report, 2016). For several years this has been a very busy general cargo route for both international and local traffic. After it was linked with two continuous rail routes within Zimbabwe, it has become more significant. This line transported more than 1.8 million tons of traffic during the 2011 review period. More than 500 000 tons of this was transit traffic to and from countries in the north.

The appendix also shows that there are more tarred roads in Musina CBD as compared to the residential areas where most roads are gravel. However, data from the field visits indicates that the tarred roads are dilapidated as shown in plates 4.5.2. This is supported by the Musina IDP of 2015/2016 which states that the local municipality still has a backlog of about 20 km of gravel roads that have to be tarred and 25 km backlog of tarred roads that have to be

upgraded/re-surfaced (Musina IDP, 2015/2016). Some of the deteriorated road transit facilities are illustrated in plates 4.5.2.

Plate 4.5.2: Dilapidated road infrastructure in Musina CBD

(a) Pot holes along Murphy street, Musina

(b) A deteriorated traffic circle along Nick Van Rensburg Street, Musina



(b) Heavy trucks, stripping tarred roads along Irwin street, Musina



Source: Author's fieldwork 2016

Plate 4.5.2 a, b and c indicate that some of the roads in Musina CBD are in a poor condition. Plate a shows a road with water-logged potholes. Plate b illustrates a traffic circle with deteriorated infrastructure. Plate c shows large trucks which are using roads in Musina town, stripping the tar. This shows that the road network in Musina needs to be renovated. The roads need to be resurfaced with tar while the potholes need to be repaired. Generally, the Musina Central Business District is in need of revitalisation. Maintenance, upgrading and renovation of a number of buildings in the Central Business District should be prioritised. Public facilities within the Central Business District should be upgraded and capacity improved. These are among the issues to be addressed collaboratively by the Musina-Beitbridge twinning agreement. The road capacity is unable to withstand the pressure exerted by the presence of trucks in the Central Business District of Musina as indicated in plate c. In short the following challenges are experienced in terms of transport within the municipal area: Unlicensed meter taxi and taxi operators; bad condition of the roads; congestion in the Central Business District; and heavy trucks damaging the roads in the urban area. Hence, trans-border transit management is still a challenge in Musina.

4.5.3 How the twinning agreement can influence institutional land uses

Due to the high influx of immigrants from Beitbridge to Musina town, there is overcrowding in the available 4 health facilities. Musina has three clinics and one hospital. According to the Musina Integrated Development Plan of 2015/2016, there is poor road infrastructure to access the health facilities and most of the health facilities are old and dilapidated. The current institutional land uses are not because of the twinning agreement. There are 9 secondary schools with 4 607 pupils within the boundaries of the municipality (Musina IDP, 2015/2016). Furthermore, there are 29 primary schools accommodating 9 791 pupils. Access to education is a significant issue that needs to be addressed. The lack of education facilities and infrastructure results in a negative culture of learning. The lack of a technical skills institution to support the local industry leads to companies to source skills from other towns. This in turn has a negative impact on the employment rate of local residents. The twinning agreement stakeholders hoped that they would cross over more often to Beitbridge to share information and expertise, but this did not happen. However, this can be an opportunity for the two municipalities to share information and skills on technical training towards trans-border spatial planning to develop the towns. Health facilities in both municipalities should cater for the high transit populations, especially because we observed that Ward 6 of Beitbridge has a high prevalence of cholera outbreaks which usually spreads to Musina because of the cross-border travellers.

4.5.4. Recreational land uses that the twinning agreement could take advantage of

The Musina Local Municipality has a number of sports and recreation facilities. The twinning agreement had goals to address recreational land uses. However, the Sports and Recreation infrastructure consists of 2 Cluster stadiums, 2 Community halls, 4 satellite offices and numerous combination playing fields. The number of nature reserves and protected areas makes it a good tourist attraction. Musina has a wide range of tourism attraction spots like Vhembe Dongola National Park, Mapungubwe International heritage site, De beers game farm, Musina nature reserve, Poppalin ranch, Ratho crocodile farm, Beit Bridge and Limpopo River. There are numbers of game farms, conservancies, national parks, nature reserves, and resorts that have been established and developed. Significant initiatives concerning tourism and conservation in or affecting the area are in progress (Musina IDP, 2005/2006).

4.6 How the twinning agreement addressed service delivery situation

Service delivery within Musina municipality is determined by the powers and functions the municipality holds as stipulated by the provisions of the Municipal Structures Act of 1998 of South Africa. Musina municipality has a billing system for tariff's charged to municipal service consumers on rates and taxes and refuse removal. People who qualify for free services like water and electricity already registered in June 2016 have an income of R3 000 or less per month. One of the Musina-Beitbridge twinning agreement's objectives was to tackle service delivery challenges in both border municipalities. As a result, municipal officials used to conduct twinning service delivery meetings in 2006. They would discuss challenges being faced in each municipality and make recommendations.

4.6.1 Water services, Sanitation and Solid waste management

According to Musina IDP of 2014, Musina Local municipality is a water service provider, whereas Vhembe district is a water service authority. The municipality supplies water through two methods i.e. household water taps connections and stand pipes. The former are utilised in Musina and Nancefield whereas stand pipe supply is done in Madimbo, Malale, Domboni, Tanda and Tshikhudini respectively. According to the municipal IDP 2013-2014, 88% of households have access to piped water and 12% have access to water service below RDP standards; this includes households with no access to water services. Households in rural villages are provided with communal stand pipes at a basic services level (Musina Local Municipality, 2013-14). According to the Musina reviewed IDP 2012/13 about 7879 houses in

the urban areas of Musina have metered water connections. In the rural areas of Madimbo 1037 households, Malale 700 households, Domboni 127 households, and Tshikhudini 192 households, have standpipes of RDP standard. Currently, all people irrespective of rural or urban have access to water. Out 7879 urban households, 2459 receive free basic water and out of 2056 only 523 villagers also receive free basic water. However, in the previous years, both Musina and Beitbridge were experiencing high crime rates whereby water pump cables from the Limpopo River that separates South Africa and Zimbabwe would be stolen now and then. However, they managed to fight this and recovered some of the stolen cables in Zimbabwe.

7879 urban households have access to refuse removal services once a week, and 1864 households in Madimbo, Malale, and Domboni have access to refuse removal once a week. Tshikhudini and Tanda have no access to refuse removal. Public institutions, government buildings and commercial properties are serviced on a daily basis. One landfill solid site is operational. There is one licensed landfill but privately-owned by Venetia mine. There are serious challenges in terms of solid waste dumping sites and illegal dumping in open spaces in Malale and Nancefield as indicated in plate 4.6.1.

Plate 4.6.1: Illegal solid waste dumping sites in Nancefield Musina



Source: Author's field photographs 2016

Plate 4.6.1 shows an open space that has been converted into an illegal dumping site. The other major challenge in Musina local municipality is that it does not have a strategy for solid waste management in rural areas, resulting in people using illegal dumping sites (Musina IDP, 2016). Plate b also indicates a stream which was contaminated by litter. According to the

Musina IDP of 2015//2016 1856 households in Tshikhudini and Tanda have no access to refuse removal.

4.6.2 Electricity service provision in Musina

Although one of the twinning agreement's goals was to address service delivery challenges, not much has been achieved. The status of electricity service provision is not because of the twinning's intervention. Eskom is responsible for the distribution of electricity in Musina local municipality. 7879 households in the urban area have metered (conventional and pre-paid) connections. 2459 Indigent households receive free basic electricity. Madimbo, Domboni and Malale are serviced; 523 households in the rural villages receive free basic electricity from Eskom. There is no backlog on electricity supply in municipal urban areas. The total backlog on electricity in the villages is 1112. According to municipal IDP 2013-14, it is indicated that about 76.4%, 65.8% and 53.5% of households have access to electricity for lighting, cooking and heating respectively. 0.6%, 0.3% and 18.9% have no access to electricity for lighting, cooking and heating respectively (Musina Local Municipality, 2013-14). According to Key informant 3, the major challenge facing electricity service delivery in Musina local municipality is cable theft by mostly foreigners from Zimbabwe. The plan of the twinning agreement was to collaboratively address cable theft crimes. Figure 4.6.2 illustrates some of the electric cables that were stolen in Nancefield, Musina.

Plate 4.6.2: A sack containing stolen electric cables that were recovered in Musina in 2015



Source: Author's field photographs 2016

50% of the key informants from Musina indicated that electric cable theft has of late become a problem around Musina, a development that continues to affect electricity supply in most parts of the town. At one time 500m of aluminium cable was stolen at Nancefield and there

was a vandalised transformer lying on the ground. According to key informant 3 from Musina, Beitbridge District and Musina local municipality have been working tirelessly to arrest the suspects as these cable thefts have affected electricity service delivery especially in Musina.

4.7 Land use situational analysis of Beitbridge, and how transborder planning comes in

Beitbridge was initially declared a provincial growth point, which later on in 2007 was granted a town status through the National Economic Development Priority Programme (NEDPP) of 2006. This national programme was parallel to the Musina-Beitbridge twinning agreement. The concept of establishing Special Economic Zones in both Beitbridge and Musina was among the goals of trans-border spatial planning between the two border towns. The National Economic Development Priority Programme (NEDPP), 2006 of Zimbabwe was mainly centred on developing Beitbridge from a neglected town into a modern city on a project that was entitled the 'Beitbridge Redevelopment Exercise'.

The Zimbabwe's Ministry of Local Government National Housing and Public works was tasked by the government to oversee the implementation of the project. The redevelopment programme entailed the construction of residential blocks, road upgrade, upgrading of water supplies and sewer infrastructure, institutional facilities, an aerodrome, as well as upgrading the border post to meet world class standards (Netsianda, 2011). This programme influenced the current land uses in Beitbridge. The influx of migrants into Musina and Beitbridge had an impact on the land uses of the two municipalities. One common issue between Musina and Beitbridge is that they were declared Special Economic zones by both countries. Studies revealed that they were not taking full advantage of their strategic location. There is a need to strengthen trans-border spatial development links to realise this. The current land uses in Beitbridge are illustrated in Appendix 3.

Appendix 3 illustrates an extract of the land uses in Beitbridge town as of 2016. There is a national road (A6) that passes through the town. All the wards are urban. Beitbridge is different from Musina in that it has a mixture of urban and rural wards. The residential areas cover the larger part of the town. Beitbridge is still in a transition stage from being a growth point to a town, hence it still has fewer shopping centers as compared to Musina. All the residential areas are still using one name which is Dulibadzimu and the local municipality is still in the process of creating a database for its town with all maps in digital form. . About 10% of the land is privately-owned and the rest is owned by the government. The twinning agreement

had less impact on the current land uses in the town. The detailed land uses in Beitbridge will be discussed under residential, transit management, and service delivery as follows:

4.7.1 Why residential land uses In Beitbridge, where not enhanced by the twinning agreement

Beitbridge town has been experiencing an influx of people coming from other provinces to stay in Beitbridge for purposes of trade in South Africa. This has resulted in the town's housing backlog standing at over 10 000, (Beitbridge's Housing Report, 2016). Apparently, the town has 2570 houses in formal settlements and 3000 in informal settlements. However, in 2005, the government of Zimbabwe launched Operation Murambatsvina ("Restore Order"). While originally targeting illegal vendors in central business districts, it was expanded to other areas by demolishing all informal settlements. This was followed by operation Garikai/ ("Operation live well") which aimed to construct low-cost houses as compensation for those who had been left homeless. Due to the economic meltdown Operation Garikai suffered from lack of resources, proper planning and local buy-in. It created residential settlements that were not well connected to urban infrastructure in Beitbridge town, the Garikai settlement, which forms most of Ward 6, is the most densely populated and worst-serviced area (BWPIA, 2014). Hence, some of the recommendations for residential land uses which had emerged from the twinning meetings could not be implemented because operation Garikai superseded all the other regulations since it was an order from the national government.

Beitbridge is also still in the process of naming its residential areas. Apparently, all the residential areas are using the name Dulibadzimu which was named after the topographical Dulibadzimu gorge in the area. Beitbridge Town Council is also still working on the demarcations of the wards to produce digitised maps. The development gap between Musina and Beitbridge is very large, mainly because of the poor economic environment in Zimbabwe which has a great impact on the trans-border spatial planning relations between Musina and Beitbridge. The relationship does not have mutual benefits anymore, as evidenced by Musina local municipality which has fully fledged plans to develop its own side of Limpopo River, isolating Beitbridge town because the economic and political environment of Zimbabwe is not conducive for spatial development planning. Appendix 1 also shows the residential land Uses in Beitbridge Town Council.

4.7.2 Trans-border transit management in Beitbridge Town Council

Beitbridge town enjoys good road and rail communication linkages (Beitbridge TC Report, 2016). Tarred roads cover a total of 24.5km while gravel/earth are about 56.6km. The

combined total road network is 81.1km. The Rutenga-Beitbridge and Bulawayo- Gwanda-Beitbridge railway lines meet in Beitbridge. The town is well covered by all major mobile communication service providers. There is also good coverage of local radio and television broadcasting stations. The presence of an aerodrome at Beitbridge enhances trans-border linkages as well. There is evidence of national roads being reinforced by railway lines that pass through Musina local municipality and Beitbridge Town Council corridor, playing important roles in trans-border linkages to other countries to Africa. Beitbridge's bus rank does not have any infrastructure, it is just an open dusty ground which floods during rainy seasons. This has a negative impact on the transit buses heading to countries like Malawi and Botswana.

According to key informant 6, because the Beitbridge bus rank is just an open space without infrastructure, during the rainy seasons the bus rank floods, affecting the transit of travellers and goods. Motorists and pedestrians find it difficult to access this rank as there are no drainage systems that were put in place. This was supposed to be addressed by the twinning agreement because the bus rank serves both people from South Africa and Zimbabwe. However, key informant 6 indicated that initially plans were afoot to put infrastructure on this open space but not much was done.

4.7.2.1 Examples of transit facilities in Beitbridge

Plate 4.7.2: (a) Beitbridge railway station (b) Beitbridge bus rank



Source: Author's field photographs 2016

Appendix 4 illustrates the Beitbridge transportation network in a map. Appendix 4 shows an extract of the transportation network of Beitbridge. Tarred roads cover a total of 24.5km while gravel/earth roads cover 56.6km. The town has a good road network with a railway line for intercity passenger and goods trains. The Rutenga-Beitbridge and Bulawayo-Gwanda join at Beitbridge before crossing to South Africa. Similarly, the Masvingo-Rutenga-Beitbridge and Bulawayo-Gwanda-Beitbridge road corridors merge at Beitbridge before proceeding to South Africa, thus establishing Beitbridge as an important hub for transportation of goods to South Africa, countries north of Zimbabwe and the world over.

4.7.3 Inadequate institutional land uses, which should be addressed through collaborative planning

Beitbridge town council has six (6) primary schools and four (4) secondary schools. It is also serviced by one (1) District Hospital, one (1) clinic, one (1) private hospital and four (4) private surgeries (Beitbridge TC, 2016). The famous Dulivhadzimu Stadium is also a notable social facility found in Beitbridge town. However, because of the high influx of immigrants to Musina town there is overcrowding in the available four health facilities. There is poor road infrastructure to access these health facilities and most of the health facilities are old and dilapidated. There are 9 secondary schools with 4 607 pupils within the boundaries of the municipality. Furthermore, there are 29 primary schools accommodating 9 791 pupils. There are also 4 combined schools that accommodate the needs of 1 023 pupils. Health facilities in both municipalities should cater for the high transit populations, especially because Ward 6 of Beitbridge has a high prevalence of cholera outbreaks which usually spreads to Musina because of the cross-border travellers.

4.7.4. Recreational land uses, where the twinning can capitalise on

In Beitbridge, the Great Limpopo River has been identified as a tourist attraction that is in the process of being harnessed to develop nature parks, waterfront facilities, animal viewing, water sporting and canoeing. The nature and panoramic quality of the landscape provides a distinctive view to tourists if carefully developed to incorporate the aforementioned uses and activities. However, the economic activities in the town are diminishing as evidenced by the closure of two of the largest hotels namely, Holiday Inn Express and Rainbow Hotel in February and May 2016 respectively. The Beitbridge Town Council has parcelled out land measuring approximately 624, 97 hectares to Chantry Enterprises at the Mzingwane-Limpopo Confluence to develop a nature conservation park. This development will also be developed as a centre of urban tourism. The twinning agreement did not address much in recreational

spatial development. Instead, a trans-frontier conservation area, known as the Sengwe-Tshipise Wilderness Corridor was established (STWC, 2007). This corridor development results from the signing of the International Treaty between Mozambique, South Africa and Zimbabwe in December 2002, two years before the Musina-Beitbridge twinning agreement was signed. From the data collected, the treaty was completely different from the twinning agreement as it was monitored at national level. However, Figure 4.7.4 illustrates some of the current recreational land uses in Beitbridge and how the twinning can come in.

Plate 4.7.4 Recreational land uses in Beitbridge Town

(a) The Dulibadzimu gorge

(b) The Beit bridge



Source: Author's fieldwork 2016

Figure 4.7.4 a shows a historical gorge known as Dulibadzimu which is found along the Limpopo River, 5 km from the town. This is an important traditional feature of the town. The main high density suburb of the town is named after the gorge. It is also one of the tourist attractions. The Beit Bridge itself is also a tourist attraction. There is a lane for pedestrians, and one for motorists.

4.8 Service Delivery Situation in Beitbridge and how transborder planning comes in

In Zimbabwe, the quality of service delivery is based on the type of municipality that you are operating, which in turn determines the budget that government allocates to a municipality. Beitbridge is still a Town Council, which means it is usually allocated a lower municipal budget compared to the budgets allocated to City Councils of Zimbabwe.

4.8.1 Water services, storm water drainages and solid waste management

Beitbridge town has an excellent supply of water (Beitbridge TC, 2014). The Limpopo River is a perennial river that supplies the town with water. The Zhovhe Dam, with a capacity of 133 million cubic metres supplies water to Beitbridge Town. There are also two dams in town: the first has a capacity of 1,366 million cubic metres and the second a capacity of 5, 315 million cubic metres (Beitbridge TC, 2014). .According to the ICR Report of 2014, there is sanitation accessibility of 80 percent overall. To break this down further, 68 percent of the population uses the piped sewer system while 10 percent have septic tanks and 2 percent other improved facilities. At least 75 percent of the population uses the solid waste collection system that is, taking their garbage to a collection point rather than disposing of it informally in their yards or streets. A further 13 percent stated that they use a combination of burning it themselves and using the collection system. Self-reported poverty is highest in Ward 6 and less than 5 percent of the population has access to piped water, up to 45 percent practice open defecation and solid waste removal is more than 10 percent below average.

Plate 4.6.1 (a) Waste collection facilities



(b) Beitbridge water treatment facility



(c) Leaking Sewer pipes



(d) Blocked drainage pipes



Source: Author's fieldwork 2016

Figure 4.6.1 (a) illustrates the waste collection facilities in Beitbridge town where the funds to purchase the metal bins were sourced from Musina local municipality. Figure 4.6.1 b also indicates that Beitbridge Town council or municipality is privileged to have a new water treatment plant with a capacity of 4000 m³ per hour, which is a major relief in terms of supplying the precious liquid to the town. Access to piped water is now at 66 percent. Piped sanitation is accessible to approximately 68 percent of the population and at least 75 percent benefit from solid waste collection services. Among piped water users, 65 percent reported an average availability of 16 hours or more per day, which is also in the proximity of the 17-hour average reported by the official ICR report of 2014. Plate c and d, indicate leaking sewer and drainage systems. According to key informant number 9, the high population in Beitbridge is exerting a lot of pressure on the existing services of water and sewerage as they are always facing problems of bulk sewer and water pipes bursting because they cannot sustain the high population levels. These are the main challenges that should be addressed by the twinning agreement. Some local residents in Beitbridge location of Dulibadzimu East are still practising open defecation in the nearby forests. However, in Musina it is better as some have access to the bucket system toilets. Key informant 9 indicated the importance of borrowing ideas from Musina to address the sanitation problems in Beitbridge town council.

4.8.2 Inadequate electricity services in Beitbridge

In Beitbridge, the Zimbabwe Electricity Distribution Authority, ZESA, is responsible for the distribution of electricity. According to Zimstats, 2012, 67.5% of the population in Beitbridge Town Council have access to electricity, whilst 31.6% do not have access to electricity. On a negative note, 0.9% no longer has access to electricity due to electricity cable theft. New residential settlements which are yet occupied have been serviced by water and roads only. Electricity poles are yet to be installed. The most common challenge between the two municipalities is electric cable theft. There is need to share ideas and collaborate on fighting this crime.

4.9 Summary of trans-border twinning development gaps derived from the situational analysis

The situational analysis of Musina and Beitbridge revealed that the twinning agreement did not really influence the current land uses in Musina and Beitbridge. Similarly, it also revealed the challenges that are still being experienced in both towns. In addition to that trans-border gaps and opportunities were identified using our conceptual framework in figure 3.1 to determine the adequacy of inputs and outputs. Our analysis revealed that the twinning

agreement did not assemble adequate inputs to kick-start its program. This is because most of the goals aimed to address infrastructure development, shared information, shared expertise on service delivery and Special Economic Zones, but like funding and staffing were inadequate. This contributes to challenges which have been explained in section 4.2 to section 4.6. Under each section a number of gaps or opportunities were identified, which the twinning agreement can address. For example, Musina was identified as a Special Economic Zone (SEZ). An SEZ should be strategically located in close proximity to transportation linkages, large industrial, commercial and residential centres. In the case of Musina, the location of the Beit-Bridge SEZ characterises it as a gateway economic zone. Since Beitbridge and Musina share the same physical environment attributes, they can also enhance tourism through the Trans-frontier Conservation Area Concept TFCA where international boundaries are replaced by joint planning. As a result, land and resource use policies can be harmonised and inter-country movements facilitated. There is need to share information and expertise in terms of service delivery to address road infrastructure, congestion, water service delivery, solid waste management as well as cable theft. More about the outputs, strategies, implementation, impact and benefits are discussed in chapter five.

4.10 Chapter summary

This chapter described the physical characteristics of the study area. It indicated the location of the study area, physiography, various land uses and the service delivery situation within Musina Local Municipality and Beitbridge Town Council. It presented these attributes clearly outlining how they are affect trans-border spatial development planning. A summary of trans-border spatial planning gaps was also presented.

CHAPTER FIVE: PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA ON TRANS-BORDER SPATIAL DEVELOPMENT COOPERATION

5.1 Introduction

This chapter presents, analyses and interprets data on the trans-border spatial development cooperation between the border municipalities of Beitbridge, Zimbabwe and Musina, South Africa. The analysis dwells more on the City-to-City management and planning model by De Villiers (2009) as explained in section 3.2.5. The spatial development analysis is based on insights from the implementation of the twinning agreement signed between the two local municipalities. The chapter begins by presenting data from 347 respondents who were local residents from both Musina and Beitbridge. Data were presented under demographic profiles and local residents' engagement and participation in the twinning agreement. In addition, data from 14 key informants were presented focusing on the contextual evaluation of the twinning agreement, input, process, output and outcome evaluation. The idea was to get data mainly from the key informants, the implementers of the twinning agreement and opinions of the local residents to verify the key informants' responses. Thus the data analysis revolved around the following 6 research questions;

- i. To what extent was the approach used succeed in addressing the problem of decaying infrastructure in both towns?
- ii. Is the sharing of information and expertise on spatial planning beneficial to the two municipalities?
- iii. What are the challenges of integrating and implementing different national spatial development planning legislations?
- iv. How adequate were the level of inputs to implement the terms of reference?
- v. What were the outcomes of the arrangements made to establish Special Economic Zones in both towns?
- vi. What framework that can be recommended to enhance trans-border spatial development cooperation in border towns using twinning as a strategy?

The construction of the research questions was guided by Conell *et al's* key questions for drawing up twinning agreements in section 3.1.2.8 of Chapter 3 of this study. A summary of the data analysis and interpretation was provided.

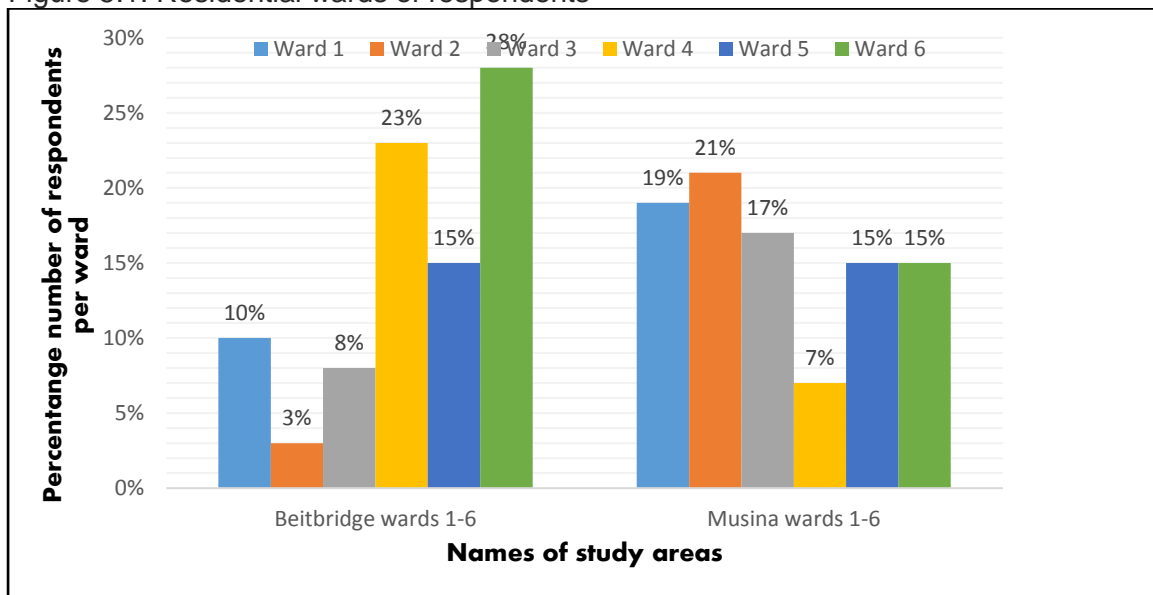
5.2 Respondents' demographic profiles

The demographic profiles of the local residents of Musina and Beitbridge were discussed and analysed through the following characteristics namely; residential ward, age group, gender, home language, and employment status. It was important to discuss the respondents' demographic data to understand the type of population that the researcher was dealing with and how trans-border spatial planning influenced such kind of a population.

5.2.1 Ward location of local residents

In order to know the geographical location representativeness of local respondents who participated in the study, the residential ward of respondents within Musina Local municipality and Beitbridge Town Council, was analysed. Beitbridge Town Council contains 6 urban wards and Musina Local municipality contains 2 rural wards (1 & 2) and 4 urban wards (3 to 6). Figure 5.1 shows the distribution of respondents in various study wards.

Figure 5.1: Residential wards of respondents



Source Author's field data, 2016 (Sample size= 347 respondents)

Figure 5.1 shows that from the 347 respondents in Musina local municipality 10% of the local respondents reside in ward 1, 3% in ward 2, 8% in ward 3, 23% in ward 4, 15% in ward 5 and 28% in ward 6. The selection of the respondents was proportional to the spatial distribution of

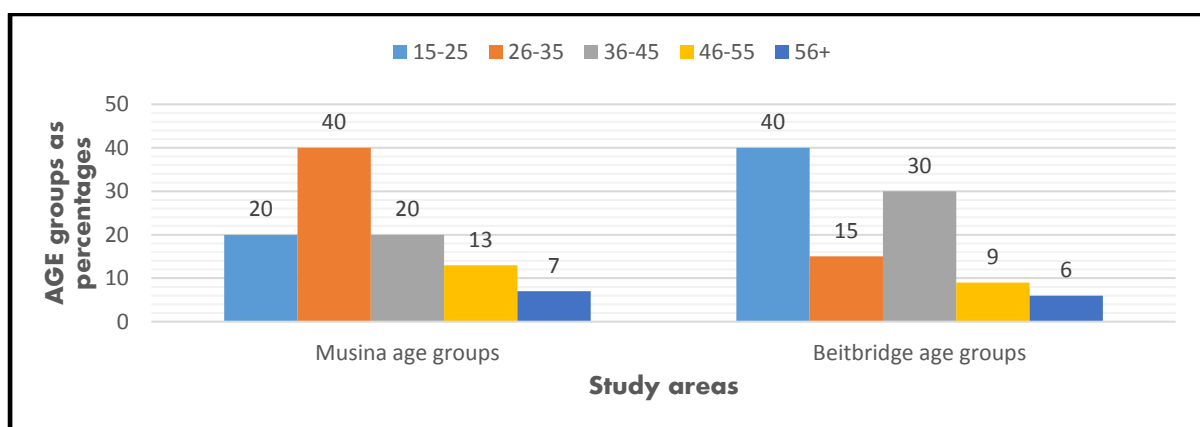
the population within the wards. The majority of households in Musina stay in urban areas of ward 3 to 6. Since the trans-border twinning implementation affects the residents in all the wards of Musina and Beitbridge, stratified random sampling was used to select respondents in all wards where each member and household head had an equal chance of being selected. In the urban wards (3-6) the selection of the household heads within the wards was based on the intervals of the streets; in rural wards (1-2), where there were no streets, the researcher used census enumeration blocks to select the households

From Beitbridge Town Council respondents, Figure 5.1 shows that 19% of the local respondents reside in ward 1; 21% in ward 2; 17% in ward 3; 7% in ward 4 and 15% in both ward 5 and 6. The selection of the respondents in wards was proportional to the spatial distribution of the population within the wards. Unlike Musina, Beitbridge Town Council is a purely urban municipality, therefore, the selection of the household heads within the wards was based on the intervals of the street arrangement until the total number of respondents required were selected. The wards located the in Central Business Districts of the towns were affected more because of the transit population of cross-border traders who increased pressure on resources and services like roads, streets, ablution blocks, water and electricity services. However, the twinning agreement did not address these issues adequately, resulting in the current state of infrastructure and streets in both towns dilapidating.

5.2.2 Age of respondents

The age groups of respondents were analysed to understand the age groups' representativeness of the respondents who participated in the study. Figure 5.2 presents the results.

Figure 5.2: Age of respondents in Musina local municipality and Beitbridge Town Council



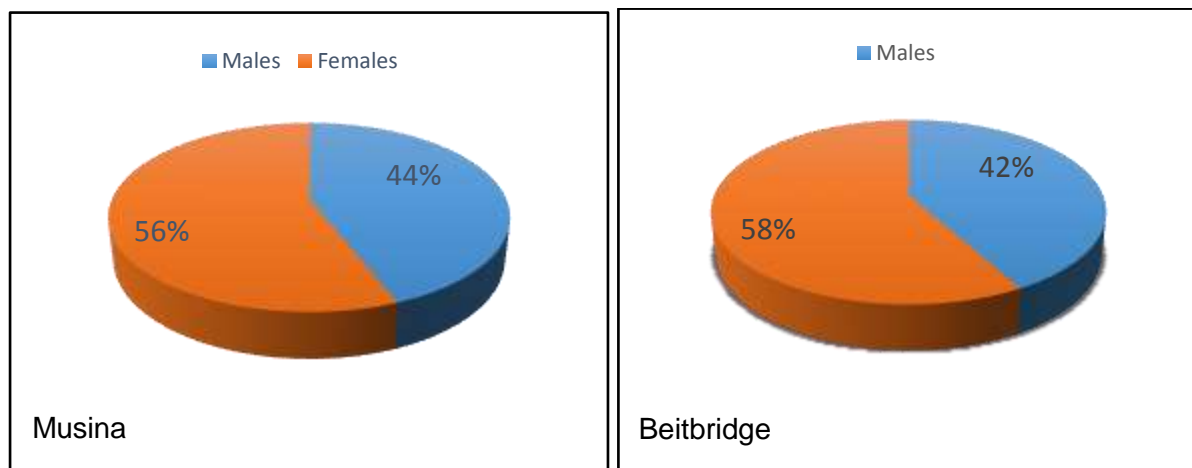
Source Author's field data, 2016 (Sample size=347 respondents)

From figure 5.2 data revealed that most of the local residents in Musina were the youth i.e. (15-35years), which corresponds with the most dominant age group in Musina LM, (Statistics South Africa 2011). On the contrary, in Beitbridge, the most dominant group which occupied 40% of the total population was the 15-25 years age group. This corresponds with the Beitbridge Water Projects Impact Assessment Report, of 2014 which indicates that after finishing school, the economically active group from Beitbridge migrate to South Africa in search of jobs. Therefore, from the age group of 26-35 years, there was a sharp decrease of representation.

5.2.3 Gender of respondents

The gender of respondents was analysed to determine the proportional representativeness of males and females that participated in the study for trans-border spatial planning. This was important to understand if gender played any role in their involvement in trans-border twinning implementation as well as the benefits herein. In general, there were more females compared to males in Musina LM which corresponds with the Musina IDP 2014/15 & Statistics South Africa 2011. Figure 5.3 shows the proportion of male versus female respondents in the study areas.

Figure 5.3: Gender of respondents



Source Author's field data, 2016 (Sample size=347 respondents)

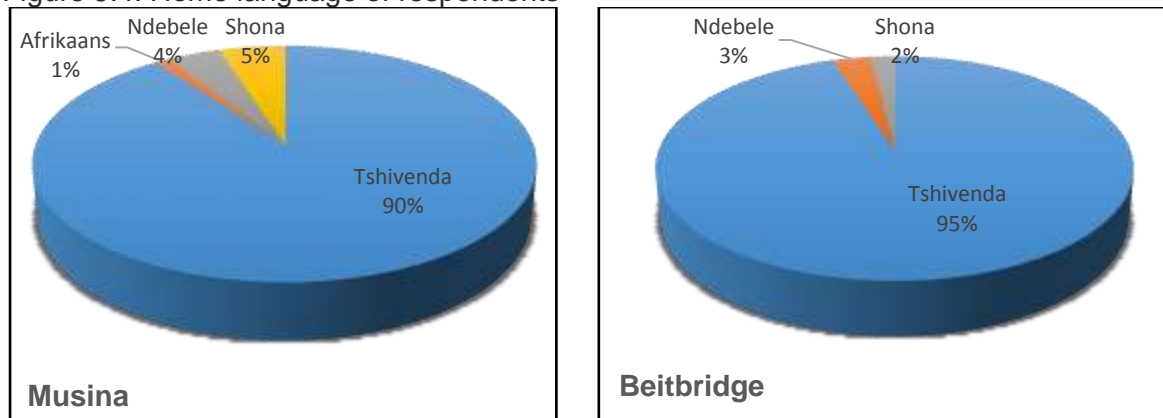
Figure 5.3 shows that 56% of the respondents were females and 44% were males in Musina. The high proportion of female respondents is attributed to more female headed households in the municipality, constituting about 54,8%, (Statistics South Africa, 2011). The reason why there are fewer males in Musina LM is because they are migrating to other municipalities

seeking employment. Figure 5.3 shows that in Beitbridge more females participated (58%) than males (42%). This corresponds with the fact that approximately 60% of the Beitbridge District population is female, reflecting extensive male migration to South Africa (BWPIA, 2014).

5.2.4 Home language of respondents

The home language of the respondents was analysed to understand the socio-cultural representativeness of our respondents. Figure 5.4 presents the distribution of the home languages from Musina and Beitbridge.

Figure 5.4: Home language of respondents



Source Author's field data, 2016 (Sample size=347 respondents)

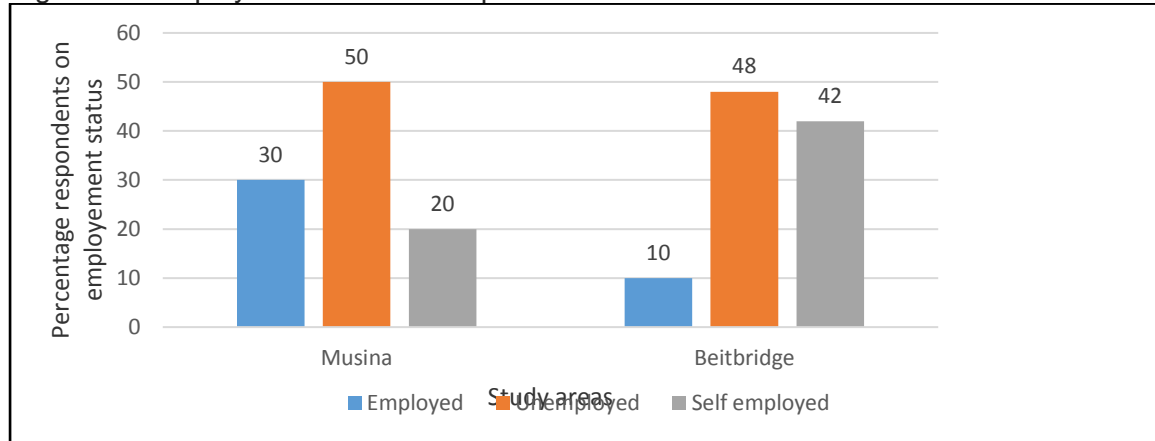
Figure 5.4 shows that at least 90% of respondents from both Musina and Beitbridge speak Venda as their home language. This corresponds with the fact that the residents from Musina originated from Beitbridge and some crossed over to South Africa. However, they do not only share national boundaries, roads and rivers, but also share a lot of sociocultural elements (Chinasa, 2009). The other language which is in Musina is Afrikaans. The Afrikaans speakers are mainly white farmers in Musina who own more than 40% of the land within the municipality (Musina SDF, 2016). A significant number of Ndebele and Shona speaking people reside in both municipalities, with Ndebele speaking people having a larger population mainly because the Matebeleland Province where Beitbridge is located is largely a Ndebele speaking province.

5.2.5 Employment status of respondents

In order to understand the impact of trans-border twinning spatial development towards employment provision in Musina and Beitbridge, respondents were asked to indicate their employment status. It was assumed that the trans-border spatial development cooperation

between Musina and Beitbridge improved the economy through creating jobs for the local people. In general Musina LM has an unemployment rate of 25% compared to the national unemployment rate of South Africa, viz. 26.6%, in 2016, (Statistics South Africa). In Zimbabwe, Beitbridge is no exception as Zimbabwe stands at a staggering 90% unemployment rate. Figure 5.5 shows the employment status of the respondents.

Figure 5.5 Employment status of respondents



Source Author's field data, 2016 (Sample size=347 respondents)

Figure 5.5 shows that among the Musina respondents, 30% were employed, 50% were not employed and 20% were self-employed. This corresponds with the data indicated in Musina IDP OF 2016 that the unemployment rate of Musina age group of 15-34 years is 52%. Figure 5.5 shows that only 10% of the respondents in Beitbridge were employed, 48% were unemployed and 42% were self-employed. According to the Beitbridge Local Economic Development Report of 2015, most residents in Beitbridge engage in cross-border entrepreneurship where they order goods from Musina and sell it in Beitbridge. Some of the goods are smuggled across the border post. The situation is the same in Musina where most youths are unemployed and survive on buying and selling. The data reveals that the trans-border twinning implementation has not achieved much in reducing unemployment levels in both towns but the mere locations of the towns close to each other benefited the local residents by undertaking cross-border buying and selling.

5.3 Response to how the local residents were engaged

The respondent's views on how the local residents were engaged in public participation is discussed under the following sub headings; respondents' awareness of the twinning agreement; programme of first encounter with the twinning; period of first learning about the

twinning; level of participation in joint development implementation projects; programmes that respondents participated; respondents' perception of the trans-border projects and respondents' desires.

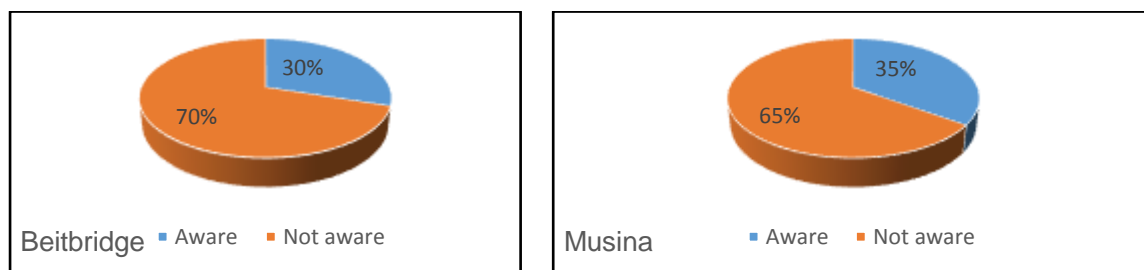
5.3.1 Respondents' level of awareness of the twinning agreement

Local residents were requested to indicate their level of awareness of the trans-border twinning agreement thereby linking it to the level of advertisement that was conducted by the two local municipalities. This provided an insight into whether the local residents were informed and engaged during the implementation programmes of this twinning. Table 5.1 shows the responses of residents from both Beitbridge and Musina.

Table: 5.1 Awareness of the twinning agreement's existence

BEITBRIDGE				Residents' awareness of the twinning agreement	
Wards	Total households	Number of questionnaires distributed	Number of questionnaires returned	Aware	Not aware
1	1 283	16	13	5	8
2	569	7	4	0	4
3	1 043	13	10	5	5
4	2 676	33	30	8	22
5	1 888	23	19	9	10
6	3 086	39	37	7	30
Total	10 545	131	113	34	79
				30%	70%
MUSINA					
1	4 009	51	48	18	30
2	4 811	61	54	22	32
3	3 808	48	42	17	25
4	1 402	18	16	0	16
5	3 006	38	37	11	26
6	3 006	38	37	15	22
Total	20 042	254	234	83	151
				35%	65%

Figure 5.6: Awareness of the twinning agreement's existence



Source Author's field data, 2016 (Sample size=347 respondents)

The results revealed that in Beitbridge Town Council, 70% of the respondents were not aware that such a twinning agreement existed between the two local municipalities while 30% were aware of it. In ward 2 of Beitbridge no resident was aware of the twinning agreement. This shows that the marketing and advertisement of the twinning agreement was not conducted on a large scale. In Musina Local municipality, 65% of the respondents were not aware of the twinning agreement's existence and 35% were aware. However, there was a larger number of Musina local residents who were aware than in Beitbridge: 83 people against 34 people. This is because the road shows between Musina and Beitbridge are usually hosted in Musina town where it would also be advertised. There was a general lack of awareness among the local residents in both municipalities on the twinning agreement. This was contrary to the terms and conditions of the twinning memorandum, whereby municipalities were given the task to advertise it until the information reached every local resident (Musina-Beitbridge Twinning MoU, 2004).

5.3.2 Programme of first encounter with the twinning agreement

In order to know the event or programme whereby local residents first learnt about the twinning agreement, they were requested to indicate it. This provided an insight on the modes of public participation and advertisements that was used by the municipalities. Table 5.2 illustrates the responses from both Beitbridge and Musina.

Table 5.2: Programme of first encounter with the twinning spatial planning programmes

Beitbridge								
Wards	Total households	Number of questionnaires distributed	Number of questionnaires returned	How the local respondents first learnt about the twinning and when				
				IDP Forums	General public forums	Road shows	Stakeholder meetings	Not aware
1	1 283	16	13	0	3	2	-	8
2	569	7	4	-	-	-	-	4
3	1 043	13	10	0	2	3		5
4	2 676	33	30	0	2	6		22
5	1 888	23	19	0	6	3		10
6	3 086	39	37	0	4	3		30
Actual Total	10 545	131	113	0	17	17		79
Percentages					15%	15%		70%
Musina								
1	4 009	51	48	8			10	30
2	4 811	61	54	9		5	8	32
3	3 808	48	42	-		17	-	25
4	1 402	18	16	-	-	-	-	16
5	3 006	38	37	4			7	26
6	3 006	38	37	15			0	22
Actual Total	20 042	254	234	36		22	25	151
Percentages				15%		9%	11%	65%

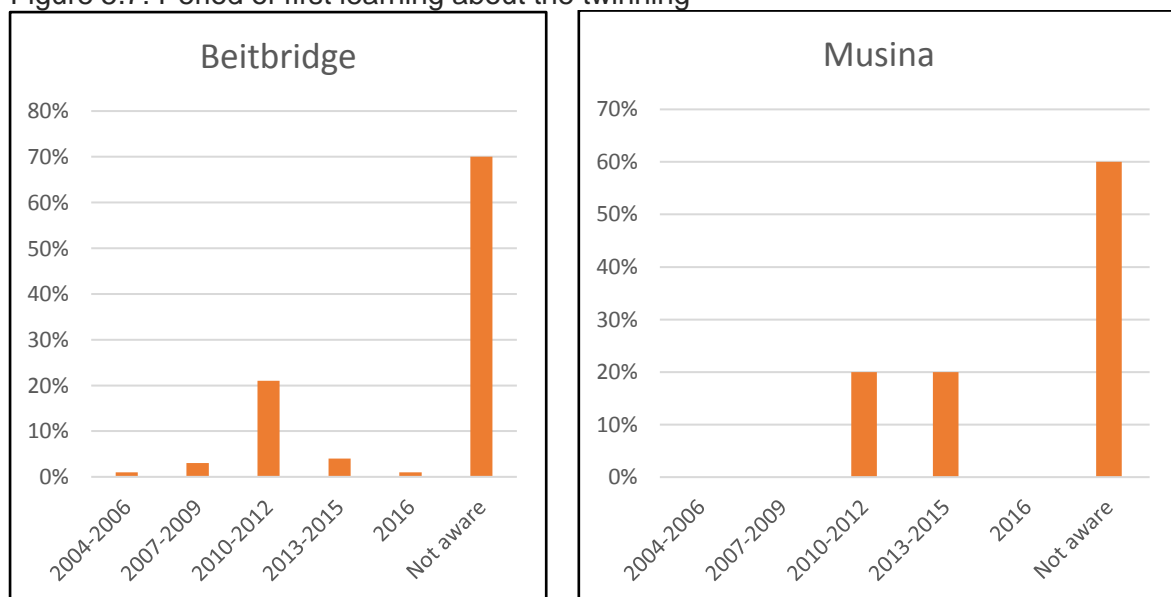
Source Author's field data, 2016 (Sample size=347 respondents)

As shown in Table 5.2, in Beitbridge 15% of the residents reported that they first learnt about the twinning agreement from general public forums, another 15% learnt about it from road shows conducted by the Musina local municipality and Beitbridge Town Council in Musina. The other 70% were not aware of the existence of such a relationship between the municipalities. In Musina, 15% revealed that they learnt about it from Musina IDP Forums, 9% from road shows and 11% from stakeholder forums. 65% of the respondents were not aware of the twinning's existence. The statistics revealed that most respondents learnt about the twinning agreement from the road shows. This means that, to a greater extent, public participation was mainly practised through road shows in both local municipalities. This explains why most respondents (70%) were not aware because the road shows are usually undertaken annually and not everyone attended. This also explains that the modes of information dissemination were inadequate. Contrary to a study conducted out by De Villiers (2011) on the importance of marketing and advertising city twinning in all forms of media and public gatherings, it was not the case in the present locations. De Villiers indicates that citizen engagement is the most important aspect of city twinning and the marketing should reach each and every citizen because they are the direct beneficiaries of it.

5.3.3 Period of first learning about the twinning development cooperation

Data on the period where local residents first learnt about the twinning agreement was analysed to understand the impact of marketing the programme against number of years. Figure 5.7 illustrates their responses.

Figure 5.7: Period of first learning about the twinning



Source: Source Author's field data, 2016 (Sample size=347 respondents)

Figure 5.7 shows that in Beitbridge from the 30% who were aware of the twinning agreement, 20 % of first learnt about it between 2010 and 2012, i.e. 6 years after it was signed. It is important to note that 70% were not aware of the agreement. In Musina, 40% of the residents the learnt about the twinning agreement between 2010 and 2015. This data reveals that a lot of local residents started knowing about it at least 6 years after it was signed. In 2016, in Musina 65% of the respondents indicated that they had never heard anything about the agreement between Musina local municipality and Beitbridge Town Council. This data can also be linked to the level of marketing soon after the signing of the agreement as explained in section 5.3.4. It is 10 years down the line, and some local residents are still not aware of the programme, this means it was not advertised adequately.

5.3.4 Respondents' participation in joint implementation projects

In an attempt to determine whether the local residents of Beitbridge and Musina took part in the implementation of the twinning agreement, they were asked to indicate whether they participated or not. Table 5.3 indicates their responses, showing the percentage of participants and non-participants.

Table 5.3: Respondents' participation in joint spatial planning implementation projects

Beitbridge						
Wards	Total households	Number of questionnaires distributed	Number of questionnaires returned	Participation in joint spatial development projects		
				Participated	Didn't participate	Not aware
1	1 283	16	13	3	2	8
2	569	7	4	-	-	4
3	1 043	13	10	2	3	5
4	2 676	33	30	2	6	22
5	1 888	23	19	6	3	10
6	3 086	39	37	4	3	30
Total	10 545	131	113	17	17	79
				15%	15%	70%
Musina						
1	4 009	51	48	8	10	30
2	4 811	61	54	5	17	32
3	3 808	48	42	10	7	25
4	1 402	18	16	-	-	16
5	3 006	38	37	4	7	26
6	3 006	38	37	15	0	22
Total	20 042	254	234	42	41	151
				18%	18%	64%

Source: Author's field data 2016. (Sample size 347 respondents).

Table 5.3 shows that 15% of respondents in Beitbridge participated, whilst 15% did not participate but were aware and 70% were not even aware that the twinning agreement existed. In Musina local municipality, data showed that 18% of the respondents did not participate, 18% were aware but did not participate and 64% were not aware at all. Generally, at least 86% did not participate while 16% participated in the implementation of the twinning programmes and projects that deal with spatial planning. This clearly shows that the level of public participation was very low. Cremer *et al*, (2009) indicates that the level of public participation should be at least be 90% of that specific population.

5.3.5 Programmes respondents participated in.

In an endeavour to know how the respondents participated in trans-border spatial planning projects, they were asked to indicate programmes or projects they took part in. Table 5.4 summarises that.

Table 5.4: Participation programmes

Beitbridge										
Wards	Total households	Number questionnaires	Number questionnaires	Spatial planning related programmes where local residents participated					Didn't participate	Not aware
				Stakeholder forums	Infrastructure development	Information sharing	Expertise sharing	Establishment of special economic zones		
1	1 283	16	13	-	3	-	-	-	2	8
2	569	7	4	-	-	-	-	-	-	4
3	1 043	13	10	0	2	0	0	0	3	5
4	2 676	33	30	0	2	0	0	0	6	22
5	1 888	23	19	3	3	0	0	0	3	10
6	3 086	39	37	1	3	0	0	0	3	30
Total	10 545	131	113	4	13	0	0	0	17	79
				4%	12%	0	0	0	15%	70%
Musina										
1	4 009	51	48	4	0	0	4	0	10	30
2	4 811	61	54	5	0	0	0	0	17	32
3	3 808	48	42	10	0	0	0	0	7	25
4	1 402	18	16	-	0	0	0	0	-	16
5	3 006	38	37	4	0	0	0	0	7	26
6	3 006	38	37	3	0	0	0	12	0	22
Total	20 042	254	234	26	0	0	0	16	41	151
				11%	0	0	0	8%	18%	65%

Source: Author's fieldwork 2016(Sample size 347 respondents).

Generally, most people in Beitbridge participated in Infrastructural development projects whilst in Musina most people participated in the Musina Special Economic Zone projects. Table 5.4 above shows that in Beitbridge 4% of the respondents participated through stakeholder forums, 12% participated through infrastructural development projects, 70% were not aware and 15% never participated but were aware of the twinning programme. In Musina, 11%

participated through stakeholder forums, 8% through the Special Economic Zones projects, 18% did not participate although they were aware and 65% percent were not aware and never participated. The data revealed that the local residents from both Musina and Beitbridge mainly took part in stakeholder forums, infrastructure development projects, and establishment of special economic zones. However, the percentage of those who participated was very low compared to the 68% who never participated at all. This reveals that the majority of the local residents did not take part in the spatial development projects that took place.

5.3.6 Respondents' perception of the trans-border projects

In an attempt to understand how the local residents viewed the spatial planning projects that were implemented, they were asked to indicate the projects they benefited from. Table 5.4 shows how they responded.

Table 5.4: How local residents benefited from the trans-twinning spatial planning projects

Beitbridge										
Wards	Total households	Number of questionnaires	Total number of respondents who are aware	Spatial planning related programmes where local residents benefited					Aware but didn't participate	Not aware
				Stakeholder forums	Infrastructure development	Information sharing	Expertise sharing	Establishment of special economic zones		
1	1 283	13	0	-	3	-	-	-	2	8
2	569	4	0	-	-	-	-	-	-	4
3	1 043	10	1	0	2	0	0	0	3	5
4	2 676	30	5	0	2	0	0	0	6	22
5	1 888	19	6	0	9	0	0	0	3	10
6	3 086	37	7	0	4	0	0	0	3	30
Total	10 545	113	19	0	17	0	0	0	17	79
				0	15%	0	0	0	15%	70%
Musina										
1	4 009	48	10	0	4	0	4	0	10	30
2	4 811	54	9	0	5	0	0	0	17	32
3	3 808	42	0	0	10	0	0	0	7	25
4	1 402	16	0	0	0	0	0	0	-	16
5	3 006	37	11	0	4	0	0	0	7	26
6	3 006	37	19	0	15	0	0	0	0	22
Total	20 042	234	49	0	38	0	4	0	41	151
				0	16%	0	2%	0	18%	65%

Source: Author's fieldwork 2016(Sample size 347 respondents).

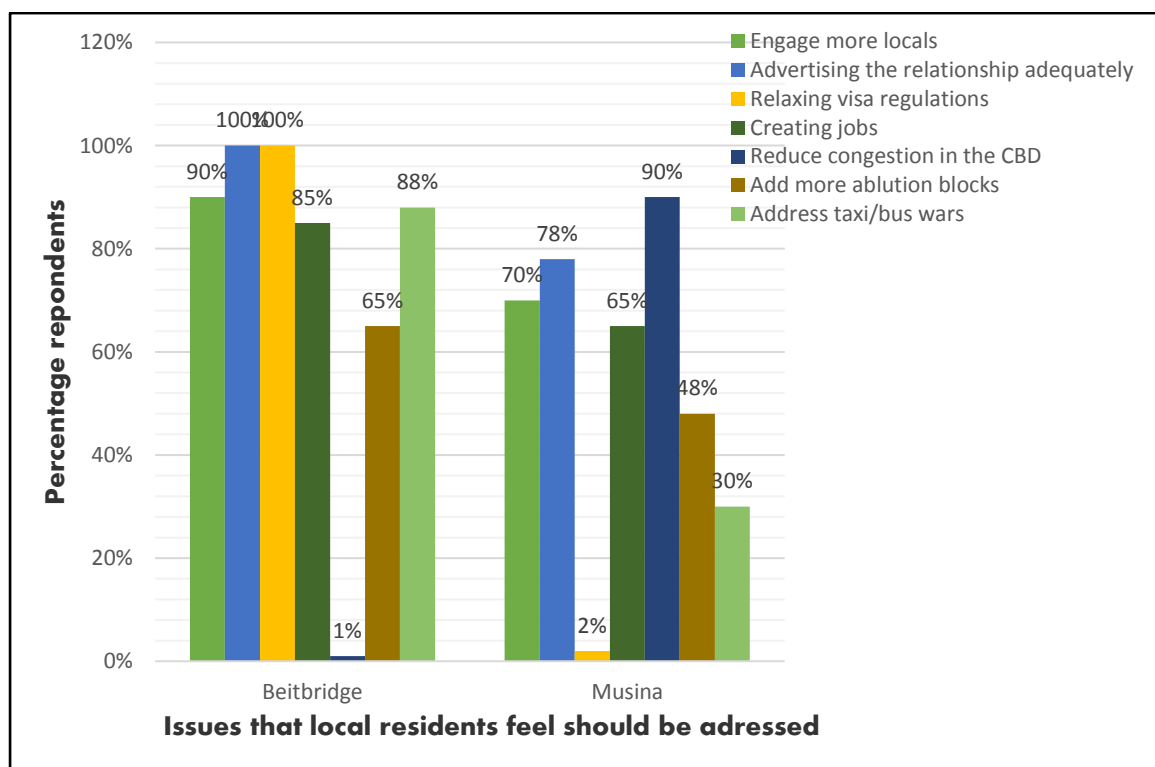
Table 5.4 reveals that 15% of the respondents felt that they only benefited from infrastructural development projects because they were employed and earned salaries. In Beitbridge, only 15% benefited through infrastructure development projects, 15% did not participate and 70% were not even aware of the twinning agreement. In Musina local municipality, 16% benefited as well through being hired in infrastructural development projects, 2% indicated that they benefited from expertise sharing through the road shows hosted by Musina local municipality.

This data can be influenced by the fact that the local residents only believed a benefit should be in the form of income. Although they might have benefited through knowledge from stakeholder and IDP Forums which they attended, they only indicated that they only benefited in terms of income only.

5.3.5 Local residents' desires regarding the twinning implementation process

Data on local residents' desires was analysed to know what the local residents felt was not addressed by the trans-border twinning. Therefore, they were asked to indicate spatial planning issues that they wish should have been addressed by the Musina-Beitbridge twinning agreement. About seven issues were raised by the respondents. Figure 5.8 shows the responses from the local residents in Musina local municipality and Beitbridge Town Council on seven issues.

Figure 5.8: Spatial planning issues that should be addressed by the twinning agreement



Source: Author's field work 2016(Sample size 347 respondents).

Figure 5.8 shows that at least 65% of the respondents in Musina and Beitbridge felt that marketing the twinning agreement, engaging locals, congestion in both Central business districts, ablution blocks in both towns were not adequately addressed. This was also

supported by observations made during the site visits which showed inadequate infrastructure in the CBDs, dilapidated infrastructure and congestion as illustrated in plates 5.1 and 5.2

Plate 5.1: Untarred roads in Beitbridge town

Plate 5.2: Congestion in Musina Town



Source: Author's fieldwork 2016

Plate 5.1 and 5.2 illustrate some of the 2016 spatial planning challenges in both towns. Plate 5.1 illustrates some of the gravel roads in the Central Business District of Beitbridge. From the field visits, the researcher observed that there is a poor and dilapidated road network in Beitbridge. Plate 5.2 shows the high congestion in Musina town which is a result of both pedestrians and trucks. The site visits revealed that the congestion was because of immigrants, mainly from Zimbabwe who come to purchase goods in bulk to resell in Zimbabwe. There are no pavements for pedestrians, hence they share roads with cars. The separation of road use for pedestrians, cars, buses, trucks and other activities were not well indicated, thus causing congestion on the tarred roads.

5.4 Discussions with key informants from both municipalities

To enable the researcher to unpack and respond to the remaining objectives of the study, 14 key informants from Musina local municipality and Beitbridge Town Council were interviewed. The details of the 14 key informants are indicated in table 5.4.1. They include representatives from the mayor's office, Chief Executive Officer's office, Finance Office, Housing and Community Services office; Spatial Planning office and Immigration officials from both municipalities.

The interviews centred on contextual evaluation, input evaluation, process evaluation, how the twinning contributed to spatial planning, and outcome evaluation of the trans-border twinning agreement in both Musina and Beitbridge. Although the field of assessing twinning agreements is under-explored (Gulati & Zajak, 2000), authors have different suggestions for assessing twinning agreements. Lendrum (2000) proposed that an assessment of a twinning agreement should be measured against agreed key performance indicators, decided at the start of the relationship. Therefore, this discussion centred on how the twinning agreement achieved its spatial planning goals. Table 5.4.1 shows the demographical information of the key informants interviewed during the data collection process.

Table 5.4.1: Profile of key informants from Musina and Beitbridge

Key informants	Gender	Department	Position	Location
K1	Male	Mayor's office	Administrative officer	Musina local municipality
K2	Male	Councillor's office	Councillor	Musina local municipality
K3	Male	Local economic development(LED)	LED Officer	Musina local municipality
K4	Male	Spatial Planning	Town Planner	Musina local municipality
K5	Male	Finance	Finance office representative	Musina local municipality
K6	Male	Chief Executive Officer's office	CEO	Beitbridge Rural District Council
K7	Male	Administration	Town Clerk	Beitbridge Town Council
K8	Male	Housing and Community services Development	Head of Department	Beitbridge Town Council
K9	Male	Housing and community services development	Housing officer	Beitbridge Town Council
K10	Male	Spatial planning	Town planner	Beitbridge Town Council
K11	Male	Finance and public relations officer	Public relations officer	Beitbridge Town Council
K12	Male	South African Revenue Services (SARS)	Beitbridge border Port Director	Beitbridge border post, South African side
K13	Male	Department of Home Affairs, South Africa	Immigration officer	Beitbridge border post, South African side
K14	Male	Department of Immigration, Zimbabwe	Immigration officer	Beitbridge border post, Zimbabwe

Source: Author's field data, 2016 (Sample size=14 key informants)

Table 5.4.1 shows that all of the key informants from Musina Local municipality, Beitbridge Town Council, and Department of Immigration, Beitbridge Border post (both South African side and Zimbabwean side) were males. The discussion focused on contextual evaluation, input evaluation, process evaluation, how the twinning contributed to spatial planning, and outcome evaluation of the trans-border twinning agreement as follows:

5.5. Contextual evaluation of the twinning agreement

In an attempt to understand how and why the twinning agreement was established, interviews with key informants were conducted based on two subheadings, namely: Drivers of the Musina- Beitbridge twinning formation; and evidence of benchmarking exercises undertaken as follows:

5.5.1 Drivers of the Musina- Beitbridge twinning formation

The major reasons why Beitbridge Town Council twinned with Musina local municipality were outlined by each of the key informants (KI) when they were requested to provide reasons which influenced the twinning process. The key informants were coded as K1 up to K14. Table 5.5.1 shows the reasons that influenced the two local municipalities to twin.

Table 5.5.1 Drivers of the Musina-Beitbridge twinning formation

Drivers of the Musina-Beitbridge twinning formation	Musina local municipality						Beitbridge Town Council					Border post (SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
The Trans-Limpopo Spatial Development Initiative (TL-SDI) of 2001	✓	✓	✓				✓					Not aware of the twinning agreement		
Geological location advantages	✓	✓	✓	✓		✓	✓	✓	✓	✓				
Spatial Development Preparation Guidelines		✓	✓	✓										
Sharing cultural relations							✓							

Source: Author's fieldwork 2016(Sample size 14 key informants)

From table 5.5.1 above, the responses indicated that there were 4 major reasons why the two municipalities decided to twin. These were geological location advantages, spatial planning justifications, a directive from the provincial government. Only one key informant indicated sharing cultural relations. Twinning and city to city relationships are usually established due to similar interests of the two cities (Chapisa, 2011). These include historical connections, economic relations, shared cultural concerns, ideological interest, geographic location and environmental concerns. Three key informants from the Department of Immigration (both South Africa and Zimbabwe) indicated that they were not aware that such a twinning agreement existed. For instance, when K12 was asked why Musina twinned with Beitbridge, the response was:

"It is my first time to hear about the existence of such a partnership between Musina Local Municipality and Beitbridge Town Council. What surprises me most is that one of the goals involves easing the movement of people across the border post, which affects us as immigration officials. Although we have our own independent meetings with Zimbabwean

immigration officials, however this is independent of the twinning agreement that you are referring to.”

This is contrary to the minutes of the first twinning meeting which indicated that Immigration Officials were part of the key stakeholders to achieve the goal of easing the movement of people across the border to promote local economic development and boosting the economy of Zimbabwe and South Africa (Musina-Beitbridge MoU, 2004). This can also be explained by the improper takeover procedures that might have occurred among these immigration officials from both Zimbabwe and South Africa. The minutes indicated that Immigration officers were part of the meeting, but the current officials indicated that they were not aware. This suggests that there might have been an improper handover and takeover process among the former immigration key stakeholders when their terms of office ended. This might have resulted in the current Immigration officials not being informed about the twinning agreement’s existence. In support of this, De Villiers (2005) indicated that many twinning relationships rely on continuity of leadership otherwise the relationship can collapse. However, all the other 11 officials indicated that they were aware of the twinning agreement and provided reasons on what drove the two municipalities to twin. Table 5.5.1 below indicates the responses on why Musina LM and Beitbridge TC twinned from the key informants, which will be explained in detail under separate subheadings as follows:

5.5.1.1 The Trans-Limpopo Spatial Development Initiative (TL-SDI) of 2001

Table 5.5.1 showed that 21% of the responses from the Beitbridge CEO and Musina Mayor, indicated that the twinning was influenced at the Provincial level. A Trans-Limpopo Spatial Development Initiative (TL-SDI) was signed between the Limpopo Province of South Africa and the Matabeleland Province of Zimbabwe in 2001. Its aim was to engage in trans-border spatial development initiatives, between the two provinces. Among other programmes, the TL-SDI indicated that local municipalities within the jurisdiction of Limpopo province (South Africa) and Matabeleland province (Zimbabwe) were supposed to twin with the relevant local municipalities. This was also supported by a memorandum written by the former Beitbridge Rural District Council CEO on 20 March 2002. The memorandum extract is provided below:

“It is recognised that the Trans-Limpopo Spatial Development Initiative (TL-SDI) should come up with some anchor projects which are quick to implement in order to enhance the development of the Trans-Limpopo Spatial Development Initiative. In this regard the following twinning agreements should be made in the meantime: Beitbridge-Musina; Gwanda-Louis Trichardt; Bulawayo-Pietersburg.”

According to the Beitbridge CEO and Musina Mayor, the Musina-Beitbridge twinning idea was a provincial directive. However, all the other reasons only influenced the choice of the twin municipality, among other local municipalities. The key informants indicated that although there were other reasons that informed the choice of the twin towns, the idea come from the provincial level.

5.5.1.2 Geographical location advantages

From Table 5.5.1 above, 70% of the key informants indicated that the geographical location advantages of Musina and Beitbridge influenced the twinning establishment to a greater extent. This is also supported by the Musina Integrated Development Plan which explains the location of the two towns as the gateway to other African countries (Musina SDF, 2013-2016). The strategic importance of the Beitbridge border post to the regional road transport system cannot be overemphasised: it is the gateway to Zambia, Malawi and the Democratic Republic of Congo, which heavily relies on South Africa's coastal ports. The locational advantages of Beitbridge and Musina towns indicated by the key informants were the proximity between two towns which is a distance of 18 kilometres. Both towns lie on a trans-international route, the N1 as it is referred to in South Africa and A6 as it is referred to in Zimbabwe (Musina LED Plan, 2007). There is road, rail and air transport infrastructure facilities linking the economic centres (Musina IDP, 2016). The major Freight Transport roads in Musina are the N1 National Road from Polokwane to Beit Bridge; R521 from Vivo to Pontdrift Border; and R572 from Musina to Pontdrift. Hence, these trans-location advantages contributed largely to the twinning of the two municipalities because the transportation routes unveil more potential for development across these corridors could only be formalised through the trans-border twinning.

5.5.1.3 Spatial Development Framework Preparation Guidelines

From Musina local municipality the key informants (K2; K3 and K4), indicated that during the preparation of the Musina Spatial Development Framework they realised that they needed to consider the neighbouring local municipality. This is because according to the DRDLR Spatial Development Framework Preparation Guidelines (2014) of South Africa, municipalities should incorporate adjacent municipalities during the preparation of their Spatial Development Frameworks. This is often referred to as horizontal alignment which refers to the systematic exchange of information, plans, and policies between government institutions at the same level (Bourgault & Lapierre, 2000). This means that stakeholders should determine if there is adequate exchange of information between local municipalities with respect to spatial

planning. According to key informant K4 at Musina Local municipality it was during the preparation of the Musina Master Plan, particularly the SDF when Musina officials realised the need to establish a trans-border twinning agreement because in this case, the adjacent local municipality was in another country. The trans-border twinning agreement was meant to be a tool to achieve the objectives of Musina Master Plan through synchronization of service delivery and establishment of Special Economic Zones. This made Musina municipal officials to approach the then Beitbridge Rural District Council officials to establish a twinning relationship.

5.5.1.4 Common cultural values from both towns

One key informant, K8, indicated that the twinning agreement was established because Beitbridge and Musina have a lot of socio-cultural elements in common. This was evidenced by his response where he said:

“We, Zimbabwean-Venda speaking people, have a lot of South African-Venda speaking relatives. The national border cannot limit us from interacting and sharing culture with our relatives.”

He highlighted that many Venda speaking Zimbabweans in Beitbridge have Venda speaking relatives in Musina who are South Africans. This also corresponds with the data collected by the researcher which shows that at least 70% of the population in both towns were Venda speaking people. The twinning agreement came in as a support system to an already existing relationship which was being limited by national boundaries. This is also in line with what De Villiers (2011) highlights when he mentions the barriers of language as implementation challenges in twinning relationships. So in this case it was a success factor. Biggs (2003) reports that most of the reasons cited for twinning failure result from a cultural mismatch between the partners. In this case, cultural relations were not challenge.

5.5.1.5 Drivers of the Beitbridge twinning formation and goals

The key drivers that supported the twinning agreement were identified by Chamisa (2011) who observed that there must be some similar interests or drivers for two cities to twin. The drivers include compatibility drivers and thematic drivers such as historical connections, economic relations, shared cultural concerns, ideological interest, geographic location and environmental concerns. From the data collected it was concluded that the Trans Limpopo-Spatial Development Initiative of 2001 informed the idea of twinning. However, other reasons also informed the choice of the twin municipality. All these drivers summed up together

influenced the goals that set towards trans-border spatial planning. As indicated in the Musina-Beitbridge Joint Coordination Council meeting of February 2005 the goals of the spatial planning cluster were:

- To renovate dilapidating infrastructure in both local municipalities;
- To commence with the Special Economic Zones projects;
- To reduce congestion in the CBD;
- To share information and expertise on spatial planning;
- To ease movement of local people between the two municipalities of the country through trans-border spatial development cooperation.

5.5.2 Evidence of benchmarking exercises undertaken

Lendrum (2000) and De Villiers (2011) indicate that another success factor of a city to city relationship is by carrying out joint benchmarking exercises. In order to understand the credibility of the twinning agreement, the respondents were asked to indicate whether they carried out a benchmarking exercise for their twinning agreement. All key informants indicated that they did not carry out any benchmarking exercise for the Musina-Beitbridge twinning agreement. However, respondent K8 (Head of Community Services Development, Beitbridge) indicated that he would personally sometimes enquire from Gwanda Town Council, Zimbabwe, on how they implemented their twinning projects. The absence of a benchmarking exercise might have contributed to the failure to achieve twinning goals because one might question the source of the standards that they were using to operate. This is because benchmarking is also alluded to by Cremer *et al* (2001) who state that the establishment of city to city relationships must begin with the examination of surrounding sister-cities then move on to an examination of how these particularities can be used as a basis for forging twinning links across the world.

5.6 Input evaluation of the twinning agreement

The key informants were asked to indicate responsibilities given to departments and inputs set aside to implement the twinning terms of reference to evaluate the inputs and link them to the level of commitment. Hence the two were analysed under separate headings as follows:

5.6.1 Responsibilities given to departments

In order to understand how responsibilities were divided to implement the terms of the twinning agreement the key informants were asked to indicate the responsibilities that were given to each of the departments at Musina local municipality and Beitbridge Town Council. All the respondents indicated there was a Joint Implementation Committee (JIC) which was established for each of the 8 themes of the twinning agreement, as indicated in Chapter 1 of this dissertation. Responsibilities were not necessarily directed to any department at Musina local municipality or Beitbridge Town Council; instead everyone in the Joint Implementation Committee was responsible. Evidence to support the interviews was an extract of the minutes in which these joint coordination committees were established. Table 5.6.1 is an extract of the first joint implementation committee between the two municipalities showing the responsibilities allocated to the spatial planning theme Joint Implementation Committee.

Table 5.6.1 Responsibilities given to departments

Committee		Names of key stakeholders (names withheld for ethical reasons)	Position	Department	Responsibilities for the spatial planning joint coordination committee(JCC)
Theme 8: Spatial Planning	Beitbridge DC	1. XXXXX 2. XXXXX 3. XXXXX 4. XXXXX 5. XXXXX	1. Administration development 2. Treasure 3. HOD 4. Principal Immigration Officer 5. Regional Controller	1. Beitbridge DC 2. Beitbridge DC 3. Beitbridge Business Association 4. Ministry of Home Affairs 5. ZIMRA	1. To go and identify challenges within your municipalities. 2. Meet at least 4 times per year 3. Timetable for meetings to be set in advance by the Musina Municipal Manger and Beitbridge CEO 4. Both municipalities to give as much media as possible to the twinning implementation projects
	Musina LM	1. XXXXX 2. XXXXX 3. XXXXX	6. Chairperson 7. Communication Officer 8. Immigration officer	1. Musina Chamber of Commerce 2. Musina LM 3. Home affairs, South Africa	

Source: Musina-Beitbridge Joint Coordination Committee Meeting (2005)

The last column of Table 5.6.1 above shows the responsibilities which were allocated to the Joint Implementation Committee. Except for responsibility number 3 (scheduling meetings), we observed that all the other responsibilities were not allocated to any specific person or department, but were directed to all members of the joint coordination committee as a team. It is also important to note that they did not have one overall twinning manager in the joint coordination committee. Buxbaum (2014) and Hsu (2003) concluded that many successful twinning organisations are always characterised by a twinning manager who acts as the link

between partners and politicians who market the idea in the country. One would have expected a clear division of labour to see to it that each department was allocated tasks for implementation to ensure budgeting inputs needed for joint spatial development; for planning on integrating spatial planning legislations from different countries; the establishment of a central secretariat; financing; conducting meetings; sharing information and expertise; easing the movement of local people; spearheading the Regional SDF and Special Economic Zones project as these were the aims of theme 8. The responsibilities were generalised in a way which is contrary to the Group Strategy, Policy Coordination and Relations (GSPR, 2012). This policy outlines that in a twinning relationship stakeholders should prepare a clear work plan with clear milestones, deliverables and responsibilities which are time bound. However, this might also be explained by the fact that no benchmarking exercise was undertaken as indicated in section 5.5.

5.6.2 Inputs that were put in place to kick-start the implementation process

In an endeavour to determine which inputs were set aside by each department, the key informants were asked to indicate the inputs that they managed to set aside to achieve the twinning goals. Table 5.6.2 indicates their responses.

Table 5.6.2: Inputs that were put in place to kick-start the implementation process

Inputs put in place to kick start implementation	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Funding														
Offices														
Staff	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Dedicated time	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Technical arrangements														
Central secretariat														
Marketing strategies														

Source: Author's field work 2016

The key informants indicated that the inputs set aside were staff members and time to meet. There was no budget or offices and technical arrangements set aside specifically to implement the twinning projects. From the discussion with the key informants it emerged that there were 5 staff members from Beitbridge District Council and 3 staff members from Musina Local municipality as indicated in Table 5.12. In terms of a central secretariat, it was agreed that whenever there was a meeting the hosting municipality was supposed to provide a secretariat for both municipalities. It was also agreed that meetings were supposed to be scheduled by

the Musina municipal manager and Beitbridge CEO at least four weeks in advance. The absence of a budget, offices and technical arrangements might have contributed to some of the goals not being achieved. Each of the inputs indicated in table 5.6.2 will be discussed in detail as follows:

5.6.2.1 Funding

No funding was set aside to implement the twinning projects. Instead, both municipalities were advised to squeeze it into their own municipal budgets and fork out funds for twinning programmes. This was also raised as a challenge by one key informant who indicated that at first it was easy to squeeze in funds to conduct meetings only, but later on they had their own municipal priorities and eventually the twinning programmes started to be ignored. However, SCI (2003) concluded that no twinning can function without funding. A study carried out by the UNDP also observed that the most sustainable and successful links have a track record of raising their link's core contributions from within the community/municipality itself (UNDP, 2000:16).

5.6.2.2 Office space

No offices that were specifically set aside to deal with the trans-border twinning arrangements. The officials would use their designated offices within their municipalities to carry out any twinning tasks assigned. This might also have contributed to the demise in the prioritisation of trans-border spatial planning tasks whilst there were other pressing issues to deal with. It might also be a challenge to balance the twinning job and your own job that you were appointed to by the local municipality.

5.6.2.3 Staff Allocation

All key informants indicated that the theme of spatial planning was allocated 8 officials as indicated in table 5.6.3. Five from Beitbridge and three from Musina.

Table 5.6.3: Staff allocated to the theme of spatial planning

Committee		Names (names withheld)	Position	Department
Theme 8: Economic and Administration issues/ Spatial Planning	Beitbridge DC	1. XXXXX 2. XXXXX 3. XXXXX 4. XXXXX 5. XXXXX	1. Administration development 2. Treasure 3. HOD 4. Principal Immigration Officer 5. Regional Controller	6. Beitbridge DC 7. Beitbridge DC 8. Beitbridge Business Association 9. Ministry of Home Affairs 10. ZIMRA

	Musina LM	6. XXXXX 7. XXXXX 8. XXXXX	6. Chairperson 7. Communication Officer 8. Immigration officer	4. Musina Chamber of Commerce 5. Musina LM 6. Home affairs, South Africa
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Source: Extract of Musina-Beitbridge Joint Coordination Committee Meeting (2005)

Table 5.6.3 above shows that from Beitbridge, the spatial planning theme was allocated an administrator, treasurer, HOD for Beitbridge Business Association, Principal Immigration officer and a Zimbabwe Revenue Authority Regional Controller. From Musina there was the Chairperson for Musina Chamber of Commerce, the Musina local municipality Communications Officer and an Immigration officer from Beitbridge border post. One worrying aspect with regards to the staff members allocated was the absence of town planners, considering their importance in spatial planning. Sister City Relationships (SCI, 2003) pointed out that strong sister-city programmes can only establish reliable links that utilize the best professionally trained staff who have an understanding of the expected outcomes of the twinning relationship. In the Musina-Beitbridge twinning agreement, town planners are the obvious professionals who are well equipped to deal with the theme of spatial planning issues. Again, it is important to note the presence of Immigration officers according to the above table which is contrary to what the immigration officers who were interviewed said. They indicated that they were not aware of this twinning agreement between these local municipalities. However, they indicated that their interaction between Zimbabwe Immigration officials and South Africa Immigration officials was outside this twinning agreement. Another thing to note was the absence of representatives from Finance departments who could maybe guide on the funding models of the twinning projects.

5.6.2.4 Absence of time set aside for meetings

In terms of the allocated time that was dedicated for twinning programmes, municipal officials were tasked to meet at least four times per year. After every meeting, the dates for the next meeting were supposed to be scheduled by the Beitbridge District CEO and the Musina local municipality Mayor. However, in terms of working outside the scheduled meetings, the time was not specified and it was at the discretion of the officials themselves

5.6.2.5 Inadequate technical arrangements

There were no technical arrangements that were set aside. These should have been in the form of Information technology arrangements for communication and drawing, construction material like caterpillars or transport set aside to be used for field visits.

5.6.2.6 Absence of a central secretariat

All the key informants indicated that they did not have a central secretariat to maintain a database of their information, meetings and any other fieldwork activities. The arrangement was that whenever there was a meeting the hosting municipality would provide a secretariat. This was evidenced by the hardships that the researcher experienced in trying to access the twinning documents because they could not be located in a twinning repository. The absence of a central secretariat resulted in the researcher taking longer than expected to access the documents that were needed. Some of the minutes of the other Joint Implementation Committees were never found, although they were mentioned during the interviews.

5.6.2.7 Marketing the twinning agreement

All the key informants indicated that both municipalities were given the responsibility of marketing the twinning agreement. This was supported Joint Coordination Committee minutes of February 2005, which read:

“Each municipality should go back and advertise the Musina-Beitbridge twinning agreement as much as they can.”

According to the key informants, the marketing to the public was done immediately when the agreement was signed through local radio stations and local newspapers. However, 70% of the local residents indicated in questionnaires that they were not aware of this twinning agreement. This was because it was only marketed in the media soon after it was signed but later on the rate of marketing decreased. De Villiers (2005) defined guidelines for successful twinning alliances in South Africa. He outlined the importance of marketing city to city alliances and the goals to all communities. It is important that everyone should be aware of the twinning and be involved (De Villiers *et al.*, 2008).

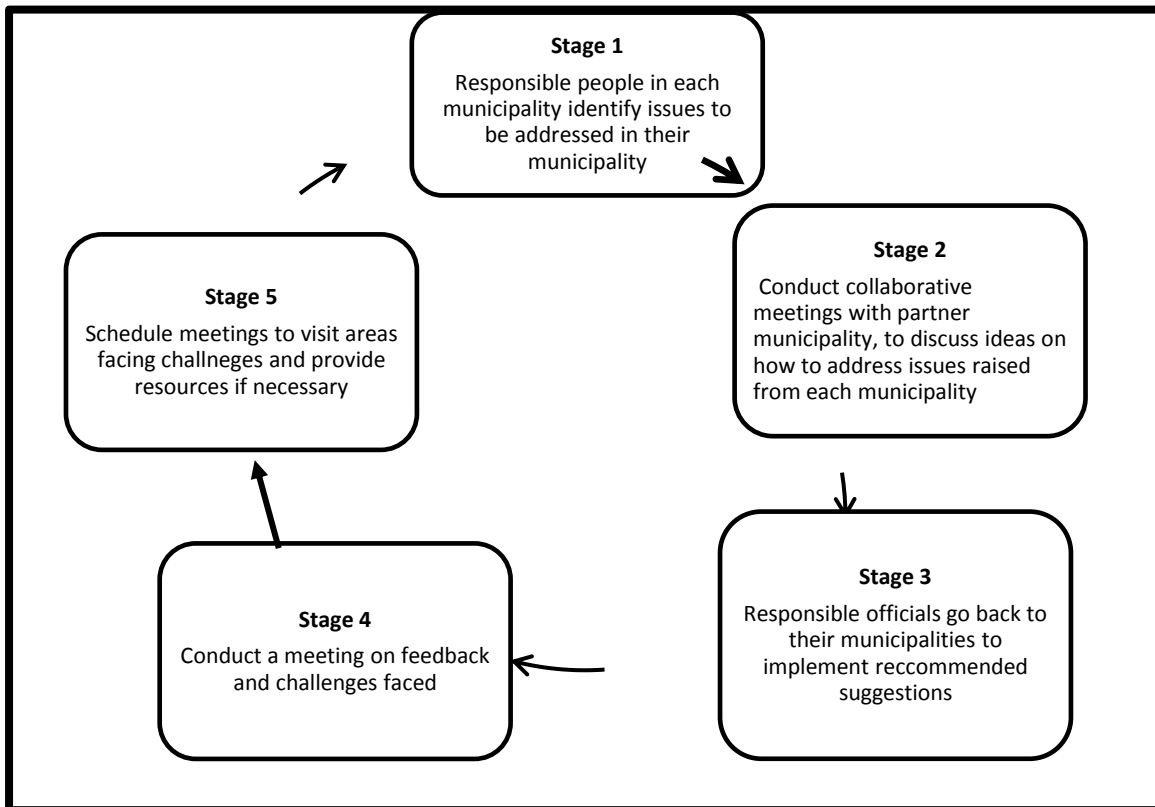
5.7 Implementation process evaluation

The implementation process of the Musina-Beitbridge twinning agreement, is going to be discussed under the following headings: the implementation process that was used; time taken to complete tasks and the frequency of conducting meetings with partner municipality.

5.7.1 The implementation plan used

The key informants were asked to indicate the municipalities' adopted implementation plan so that we could have an understanding of its stages, support system and compactness. According to De Villiers (2011), many twinning relationships usually progress and then fall flat due to lack of concrete implementation plans. Figure 5.7.1 below shows the implementation plan from stage 1 to stage 5. The key informants indicated that they managed to conduct meetings soon after the twinning was signed and managed to set goals. However, from there, the progress was slow due to a number of challenges explained in section 5.9.3.

Figure 5.7.1: Twinning implementation plan adopted by both municipalities



Source: Author's fieldwork 2016

From the abovementioned implementation, it is evident that there were no time bound goals as well as monitoring and evaluation programmes. It is also evident that, responsibilities were

allocated to everyone in general as there were no specific people allocated to the programme. De Villiers (2008) proposed a management and planning model to be used by municipalities involved in municipal twinning. This model consists of six steps namely: strategy formulation, identification of potential partners, evaluation and selection of potential partners, negotiation of the alliance and agreement, implementation, and the embedding of knowledge which leads to alliance capability and continued alliance success. Each step has several sub-steps. According to the Local Government International Bureau (: “There is no single correct model, but there are general principles that need to be followed when implementing twinning programmes.” This involves creating a business plan, monitoring and evaluation programme. Figure 5.7.1 summarises the implementation plan.

The CEMR (2004) states that the implementation of a twinning agreement should ensure the active participation of the local citizens. However, the implementation plan made no mention of where local citizens would fit in. It is against this background that we conclude that the implementation programme was not concrete.

5.7.2 Time taken to complete tasks

To discover the level of commitment of the stakeholders, the key informants were asked to indicate the time used to take to complete the twinning projects that were set aside. Table 5.7.1 indicates their responses.

Table 5.7.1: Time taken to complete tasks

Time taken to complete tasks	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
<6 months								✓						
7-12 months														
13-24 months														
3-5 years														
6-10 years												n/a	n/a	n/a
Not yet completed	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓			

Source: Author’s fieldwork 2016

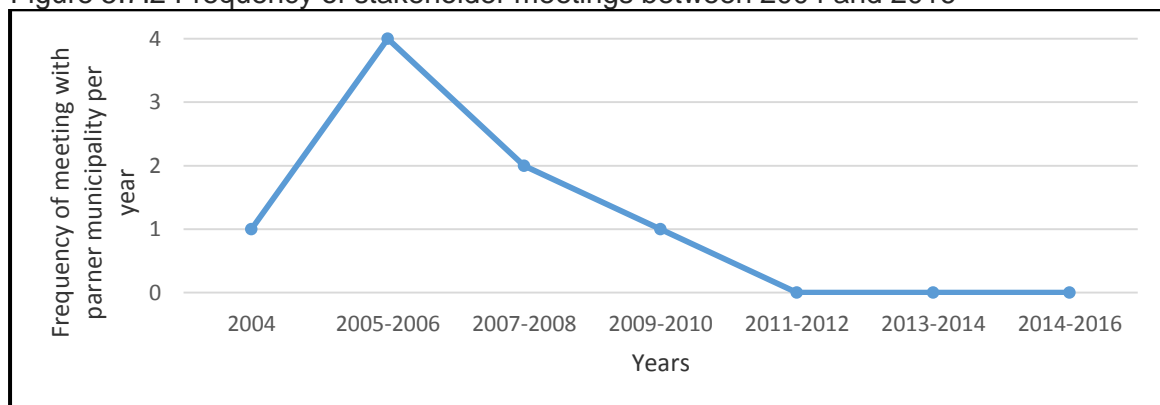
Only one respondent (K8: Head of Community services department, Beitbridge) specifically mentioned the project that they completed in 4 months in collaboration with Musina local municipality. It was the installation of water tanks in Beitbridge residential areas of Dulibadzimu which took about four months. On the contrary, the other key informants indicated that their projects were still in the pipeline. They also explained that the reason why most of the goals

were not achieved was that they were not time bound. This is contrary to the general principles of twinning implementation models. The most critical principle is setting out time bound goals if twinning programmes are to be achieved (LGIB, 2001). A twinning agreement should have a vision. It is also important to set a time limit even for the attainment and completion of the projects. From the information gathered the lifespan of the twinning agreement was not clear.

5.7.3 Frequency of stakeholder trans-border meetings between 2004 and 2016

The key informants were asked to comment on meeting agreements to determine if the meetings really took place and to indicate the level of frequency from 2004 to 2016. Figure 5.7.2 below summarises their responses.

Figure 5.7.2 Frequency of stakeholder meetings between 2004 and 2016



Source: Author's field work 2016

From the 5.7.2 above, generally, the key informants indicated that soon after the signing of the agreement in 2004, they would meet 4 times per year as stipulated. However, the frequency decreased gradually over time where they met twice per year. This happened until 2011 when the Joint Implementation Committee was no longer meeting. According to (Van Liere, 2014) this is contrary to the success factors of twinning agreements, because successful sister city relationships are normally characterised by conferences, meetings of institutions, workshops and seminars with the aim of achieving the goals. In her study of European twinning, she determined seven factors that characterise the practise of town twinning and official meetings and citizen meetings are described as essential for a municipal twinning to work. As at 2016, the meetings are less frequent now.

5.7.4 Forums for communicating with local residents

In an effort to understand whether local residents were being engaged in the twinning implementation programmes, the key informants were asked to indicate the forums used to communicate and engage local residents. Table 5.7.2 below indicates the responses.

Table 5.7.2: Forums used for communicating with local residents

Forums used to communicate with local residents	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
IDP Forums	✓	✓	✓											
General public forums														
Road shows			✓	✓	✓	✓	✓							
Stakeholder meetings								✓	✓	✓	✓			
Open door service														
Never														

Source: Author's fieldwork 2016

Table 5.7.2 above shows that the municipal officials highlighted that they communicate with residents mainly through road shows, IDP Forums and General public forums. However, the local residents indicated that only road shows were mostly used. This contradiction led to confusion on whether the local residents and the municipal officials were engaging each other on the twinning agreement.

5.8 Responses on whether the implementation process contributed to spatial planning or not

Data on how the Musina-Beitbridge agreement contributed to spatial planning was revealed when the key informants were asked to indicate the twinning's contribution to planning. Their responses were analysed under the following headings: overall response on whether goals were achieved; evidence of sharing any spatial planning information and expertise with partners; how inadequate and decaying infrastructures were addressed; strategies used to integrate different spatial planning legislations and the Progress of the Special Economic Zones Projects;

5.8.1 Evidence of sharing spatial planning development information and expertise

To determine the sharing of spatial planning development information and expertise, key informants were asked to indicate their experiences on information and expertise sharing. Table 5.8.1 indicates their responses.

Table 5.8.1: Evidence of sharing spatial planning information and expertise

Evidence of sharing information and expertise	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Shared information	✓					✓		✓						
Did not share any information														
Not aware												✓	✓	✓

Source: Author's fieldwork 2016(Sample size 14 respondents)

21% of the key informants indicated that they shared information with their twin partners. These were representatives from Mayor's office Musina, CEOs office Beitbridge and the Community services Head, Beitbridge. They highlighted that initially they managed to conduct a few meetings where they would share information on spatial planning challenges within each town. During these meetings each municipality suggested recommendations on how to deal with the challenges based on their own experiences. For example, the current head of Housing and Community Services (Beitbridge) indicated that Musina Local municipality assisted with the procurement of Jojo water tanks to try and address the water challenges experienced in Beitbridge. However, from the spatial planning departments and finance departments we gathered that little information was shared besides conducting the initial joint committee meetings. One example of the response that explains this very well was from key informant 4 from Musina municipality who said:

"I thought that Musina Town planners would cross over to Beitbridge for a month and learn how Beitbridge Town Council addresses their spatial planning challenges, and Beitbridge would also do likewise, but that did not happen."

This explains why issues like inadequate and decaying infrastructures were not addressed collaboratively. The general feeling from all the respondents was that there wasn't a direct implementation plan on how information and expertise was supposed to be shared. The minutes obtained by were up to 2006, which indicated that officials were supposed to meet

four times per year, but as years passed there was no any other evidence provided from the data collection.

5.8.2 How were inadequate and decaying infrastructures addressed through the twinning agreement?

The key informants were asked to indicate how twinning programmes contributed to infrastructure development in the CBDs of both local municipalities. One respondent (K8: Head of Community services, Beitbridge), indicated that it contributed to the installation of the bulk water supply infrastructure in Beitbridge district of Zimbabwe. This was mainly because there was a cholera outbreak in Beitbridge and it was mainly caused by unhygienic and inadequate water supplies in the town. The Head of Community Services, Beitbridge highlighted that they had to source funds from Musina Local municipality to install water tanks in Beitbridge, and this was a success.

In terms of tarring roads, Musina local municipality still has a backlog of about 20 km of gravel roads that have to be tarred and 25 km backlog of tar roads that have to be upgraded/re-surfaced (Musina IDP, 2015/2016). Both towns still experience high levels of congestion because there are inadequate pavements for pedestrians. Hence, they end up sharing the same road with cars, buses and trucks. Beitbridge Town Council has a greater number of roads which need to be tarred compared to Musina local municipality. There are inadequate ablution blocks in both towns considering the high transit population travelling between the two towns. In terms of bus ranks, Musina contains one formal rank, which is inadequate for buses. As a result, buses have to park at Musina filling stations because there is no space for them to park in the rank.

On the other side, the Beitbridge bus rank is still an open space as illustrated in plate 4.7.2 (b) of Chapter 4. This open space usually floods during rainy seasons because there are no drainage facilities. Key informants indicated that the ripple effects of the economic recession of Zimbabwe started to be felt around 2006, two years after the twinning agreement was signed and this affected it. Even in 2016, some of the roads are still gravel roads as indicated in plate 4.7.2. The presence of trucks in the CBD also adds more congestion because they use A6 international route to pass through the town. There are inadequate pavements, hence, because of the high transit population coming to Musina for buying bulk goods, pedestrians and motorists end up sharing the same road.

5.8.3 The strategies used to integrate spatial planning legislations from different countries

Considering that the twinning agreement was signed between two local municipalities in different countries with different spatial planning legislations, one would expect to get an idea on how the legislations from different countries were integrated in order to achieve the stipulated goals. In order to understand how these were integrated key informants were asked to comment on the availability of integration strategies. Table 5.8.1 below indicates the key informant responses.

Table 5.8.1: Availability of Strategies used to integrate different spatial planning legislations from both countries

Strategies used to integrate spatial planning legislations	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Strategies available														
No strategies available			✓	✓	✓				✓	✓				
Not aware of the twinning agreement												✓	✓	✓

Source: Author's field work (Sample size 14 key informants)

36% of the key informants indicated that there were no strategies to integrate Spatial Planning legislations. These were the LED Officer Musina, Town Planner Musina, Head of Community Services Beitbridge and the Town Planner at Beitbridge Town Council. The rest of the participants did not respond to this question, but directed the researcher to the spatial planning departments of both Beitbridge and Musina. Key Informant 4 indicated that they did not have a strategy that they had adopted; instead each municipality was supposed to use its own legislation from its country. They would just integrate ideas and not legislations. In Zimbabwe, the main legislation used in spatial planning is the Regional, Town and Country Planning Act of 1976. This is different from South Africa where the spatial planning discipline has undergone a transition from apartheid influenced legislations, through a multiplicity of legislations until 2013, when a single legislation was enacted to govern spatial planning which is the Spatial Planning and Land Use Management Act of 2013. This would have influenced the implementation of the twinning programmes if it was considered.

5.8.4 Progress of the Special Economic Zones Projects

To determine the progress of the major spatial planning projects that were part of the trans-border twinning, the key informants were asked to indicate the level of achievement of Special Economic Zones from both municipalities. Table 5.8.2 indicates the responses.

Table 5.8.2: Progress on the Special Economic Zones Projects

Progress on the SEZ Project	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Partially achieved	✓	✓		✓										
Completely achieved														
Not achieved at all														

Source: Author's fieldwork (2016)

Table 5.8.2 above shows that that only 3 respondents from Musina indicated that the implementation of Special Economic Zones project was partially achieved. This is evidenced by the Figure 5.8.1 which shows the area planned for Musina's SEZ. According to key informant 4, Musina local municipality chose the sites for the Special Economic Zones. Apparently there are 3 chosen sites separate from the main town, and they will be developed one after the other. However, from Beitbridge Town Council, they were still working on choosing their sites. All informants indicated that the plan was to establish a mirror trans-border development. This meant that the same concept of establishing Special Economic Zones would be used by both local municipalities in a collaborative way. However, the two local municipalities are no longer collaborating. Instead, Musina is at a more advanced stage whereby, they have already demarcated their SEZ proposed sites and reports were presented. Figure 5.8.1 indicates the 3 proposed sites for the establishment of Special Economic Zones in Musina local municipality.

Figure 5.8.1: Proposed sites for Musina Special Economic Zones



Source: Musina SEZ: Technical Feasibility Report 2014

Figure 5.8.1 illustrates the proposed three Special Economic Zones for Musina Local municipality. Sites 1 and 2 are located in Leekor while site 3 is located in Antonvilla as described by key informant number 4. The key informant from Musina local municipality indicated that they were now working on designing the three sites and this was no longer in collaboration with Beitbridge because the twinning agreement had faded away. Key informant 4 (The Local Economic Development Officer) indicated that the intended Musina Special Economic Zone would be a proper model of integrated development with large impact. Although by June 2016, the monetary implications of such an undertaking had not been

quantified public consultations were already being conducted. In support of the SEZ Projects a report from the Limpopo provincial government of 2016, had indicated that the current infrastructure in Musina would be upgraded to meet the new challenges and delivery of most basic services. This is part of strengthening and supporting Special Economic Zones' projects (Nel, 2013). However, Beitbridge Town Council is still in the process of site selection, but plans are in progress according to key informant 8.

5.9 Overall outcome evaluation

The overall outcome evaluation was discussed under the following headings: success factors of the twinning agreement; the challenges encountered and the general feeling of the stakeholders towards the status of the twinning agreement.

5.9.1 Success factors of the twinning agreement

The success factors of the twinning agreement were outlined and key informants were requested to indicate areas of success as shown in table 5.9.1.

Table 5.9.1: Success factors of the twinning agreement

Success factors	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Outlining SMART goals														
Identifying valuable alliance opportunities and good partners;	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Clear Budgeting for resources														
Accomplishing goals in time									✓					
Information/expertise exchange/Networking														
Periodical reviews														
Public/Stakeholder participation														
Marketing the twinning strategy														
Enabling environment														
Excellent communication														
Stakeholder participation														
Distributing roles and responsibilities														
Benchmarking exercises														
Creating a central secretariat														
Appointing spatial planning professionals									✓					

Source: Author's own construct 2016(Sample size 14 respondents)

Table 5.9.1 above shows that the Musina local municipality and Beitbridge town council did well because they identified opportunities when they decided to twin. All key informants without

exception outlined that the drivers of the twinning establishment were very concrete, although implementation faced some challenges. Gulati & Zajac (2000) list the following attributes as success factors in alliances: outlining SMART goals; identifying valuable alliance opportunities and good partners; generating capital; accomplishing goals in time; developing inter-firm knowledge-sharing routines; initiating necessary changes to the partnership as it evolves; public participation; marketing the relationship; enabling environment; excellent communication and stakeholder participation. Therefore, it is when measured against these success factors we conclude that the twinning did not manage to address 70% of them so that the twinning could be a success.

5.9.2 Overall response on whether goals were achieved

The key informants were requested to indicate whether the twinning spatial planning objectives were achieved or not. Their responses are shown in table 5.7.1 below indicates.

Table 5.9.2: Overall response on whether goals were achieved

Responses on whether goals were achieved	Musina local municipality						Beitbridge Town Council					Border post(SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Partially achieved								✓						
Completely achieved														
Not achieved at all	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	n/a	n/a	n/a

Source: Author's fieldwork 2016

From the 14 key informants, 11 were aware of the twinning agreement and 3 (K12, K13 and K14) were not aware. From the 11 respondents, only one key informant (K8, Head of Community Services) indicated that the goals were partially achieved. This was because they managed to conduct regular meetings, field visits, address Beitbridge sanitation problems and solid waste disposal, and the unhygienic effluent that was affecting the Limpopo River. All the other key informants indicated that the goals were not achieved. The key informants from Beitbridge Town Council indicated that the establishment of the town council in 2007 left the twinning responsibilities hanging because up to now they are not sure whether it is the responsibility of the Town Council or the rural district council. On the contrary, the key informants from Musina Town Council indicated that the major reason why the goals were not achieved was because of the economic recession that has affected Zimbabwe since 2005, which led to the suspension of many trans-border development projects in Zimbabwe as a whole. However, all respondents highlighted that the implementation process was not effective due to the challenges explained in the next section.

5.9.3 Major challenges encountered during the implementation process

The stumbling blocks that Musina local municipality and Beitbridge Town Council faced since 2004 were revealed when they were asked to indicate the challenges faced over the years.

Table 5.9.1 below illustrates the responses.

Table 5.9.3: Major challenges encountered

Challenges encountered	Musina local municipality						Beitbridge Town Council					Border post (SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Dissolution of the Beitbridge District Council and establishment of Town Council	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Resource allocation (no standalone budget)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Different financial planning calendars														
Dilemma of the legal framework; Who enforces?				✓				✓		✓				
Departure of officials due to completion of terms of office				✓		✓				✓				
Different legislations				✓				✓		✓				
Ending terms of office	✓		✓	✓		✓	✓	✓		✓				
No overall coordinator	✓		✓	✓	✓	✓	✓			✓				
Economic deterioration in Zimbabwe	✓	✓	✓	✓	✓		✓		✓		✓			
No time bound goals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Inadequate marketing														

Source: Author's fieldwork 2016(Sample size 14 respondents)

The challenges indicated by the key informants in the table above will be discussed under separate subheadings as follows:

5.9.3.1 Dissolution of the Beitbridge District Council and establishment of Beitbridge Town Council

From table 5.9.1 one of the major challenges that the twinning faced was the dissolution of Beitbridge District Council and establishment of the Town Council in 2004. When the twinning agreement was signed both the rural areas and urban areas of Beitbridge were administered by one council known as Beitbridge Rural District Council. When the twinning agreement was signed in 2004, it was signed between Beitbridge Rural District Council and Musina local municipality. In 2007, Beitbridge was divided into rural and urban. That is when Beitbridge Town Council was established to administer the urban area. As a result, there are now two local municipalities, Beitbridge Rural District Council and Beitbridge Town Council. However, this created problems because these two local municipalities are not sure which of the two should manage the twinning agreement with Musina. Hence, currently, it has been left hanging in the air. At the end, no one was responsible and the interactions with Musina local

municipality just faded into thin air. The key informants explained that they would really appreciate if this study would solve this confusion. The absence of a monitoring process and a twinning manager explains why the twinning agreement has been abandoned. This is because in Beitbridge it is not clear which body is supposed to monitor it.

5.9.3.2 Resource allocation was inadequate

The other major challenge raised by the key informants was lack of a standalone budget to implement trans-border twinning projects. From the initial meetings held between 2004 and 2009, the agreement was that each municipality would squeeze in the twinning projects' requirements from its own municipal budget (Musina-Beitbridge JIC meeting, 2005). This became hard for the municipalities to prioritise twinning, as they had their own pressing issues in their respective municipalities, like housing shortages, (Musina IDP, 2015/2016). Ewijk & Baud (2009) highlight the importance of the resources' perceived usefulness in order to increase the potential for mutual learning, co-operation and successful projects. The only resources that were clearly stated that they would be provided for were for coordination meetings, which the host municipality was supposed to provide. This was stated in the Musina-Beitbridge Joint Implementation Board meeting of 2005 thus:

"It was agreed that for meetings, the host municipality would provide a secretariat, venue and food for the Joint Implementation Committee."

In addition, the provision of resources, inputs and funding for the twinning implementation were not explicitly mentioned. Recent studies indicate that necessary resources for networking activities are not only money, but also time, staff and expertise (Nitschke *et al.*, 2009). Inadequate resource allocation can diminish the dedication to implement twinning projects. Adequate resource allocation is useful in order to increase the potential for expertise sharing and fruitful projects.

5.9.3.3 Lack of enforcing legal frameworks

The other problem raised by the key informants was the absence of a legal framework that would bind participants to make the twinning a success. This was best explained by one key informant who indicated that he felt that there was supposed to be a legal binding framework and even penalties if one did not adhere to the rules and regulations of the twinning agreement. The fact that they did not have one overall coordinator or champion who would oversee everything happening in both municipalities indicated a challenge. This was clearly articulated by one key informant thus:

“The issue of enforcement is very critical, because currently if I do not act as we agreed, no one will fine me or call me for a hearing.”

De Man (2001) recommended that legal aspects should be among the environmental tools on which sister city relationships must rest. This will encourage stakeholders to meet deadlines because they will be bound by the legal framework. However, the lack of time-bound goals might have also contributed to the fading of the twinning agreement.

5.9.3.4. Lack of continuity of leadership and a champion

The twinning suffered from the departure of officials due to completion of terms of office. When the mayors, councillors and town clerks of both municipalities left, the next group of municipal officials could not prioritize the twinning agreements. Sometime during the handover some of these trans-border relationships were not mentioned explicitly. At the end, the trans-border arrangement faded away as years passed. In support of this, in his study Buxbaum (2014) unpacked Johannesburg’s city-to-city partnerships and concluded that many twinning relationships rely on continuity of leadership. Therefore, the lack of continuity of leadership might have contributed to the failure to achieve the goals and objectives of the twinning agreement as they did not have an overseer.

5.9.3.5 Economic deterioration in Zimbabwe

The deterioration of the economy of Zimbabwe with its ripple effects being felt from 2006 going onwards was a major drawback. This affected the trans-border relationships within the country. The key informants indicated that this contributed to the decline of progress in the relationship. This was mainly because the twinning benefits were no longer mutual as the other twin municipality’s economic environment was no longer conducive for the relationship to survive. However, De Villiers (2006) recommended that twinning relationships should be manned by a twinning champion whose role is to create an environment that can respond to change in each of the twin partners. This means that the Musina-Beitbridge twinning agreement was supposed to have a plan set aside for unexpected political, economic or social changes.

5.10 Overall spatial planning goals achievement scores

In an attempt to have a general overview on whether the the spatial planning goals had been achieved, the key informants were asked to score the achievements out of 10, with 1 being

the lowest score and 10 being the highest score. The score was a summary of the information that they had discussed. Table 5.10 shows their responses.

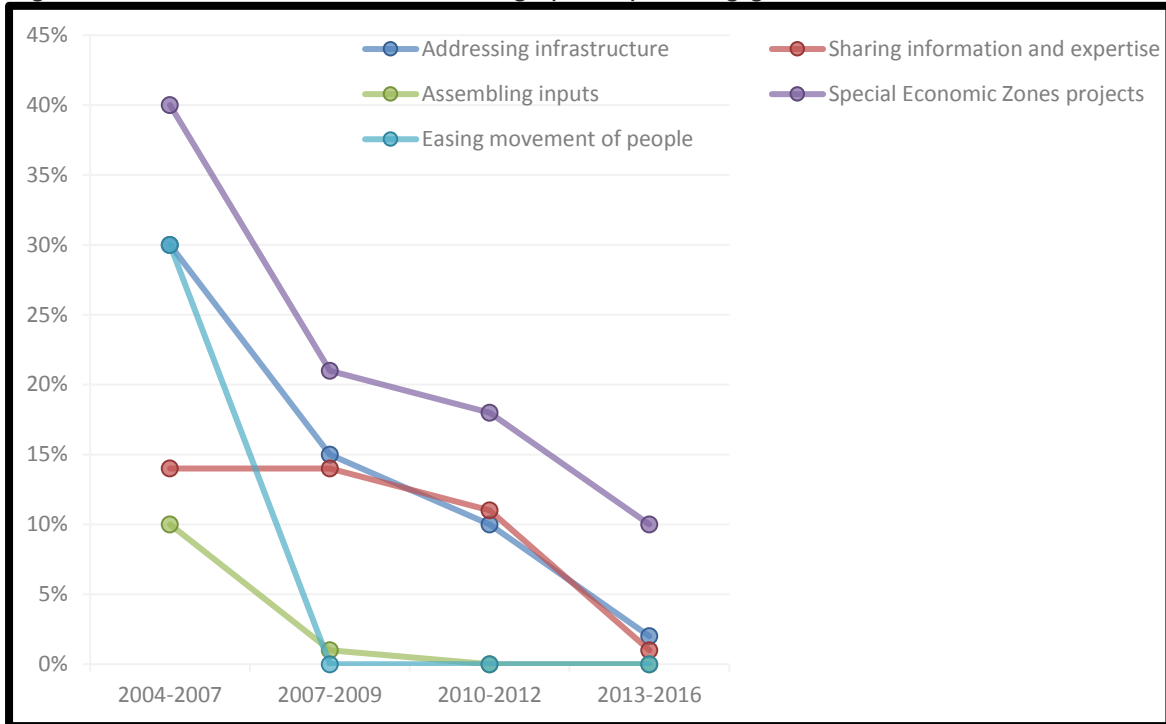
Table 5.10: Key informant's overview on spatial planning goals achievement

Spatial planning goal	Musina local municipality (Out of 10)						Beitbridge Town Council (Out of 10)					Border post (SA and Zim)			Mean
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	
1.Addressing inadequate and decaying infrastructure in Musina and Beitbridge	5	6	7	6	4	4	3	5	0	4	3				34%
2. Sharing of information and expertise sharing with respect to spatial development planning.	5	3	1	0	0	2	0	6	0	3	3				16%
3. Assembling inputs that to implement the terms of reference in the twinning agreement.	2	2	1	0	0	1	0	5	3	0	0				7%
4. The progress of establishing Special Economic Zones (SEZ) on both sides.	6	7	5	6	5	0	0	1	2	0	0				23%
5.Easing the movement of people	0	0	0	0	0	0	0	0	0	0	0				0
Average score	3.6	3.6	2.8	2.4	1.8	1.4	0.6	3.4	1	1.4	1.2	n/a	n/a	n/a	16

Source: Author's fieldwork 2016(Sample size 14 respondents)

Overall, the highest average score for all goals was 3,6 out 10, which is 36%. This means the key informants felt that the spatial planning goals of the Musina-Beitbridge twinning agreement had achieved only 36% of its goals, which is not close to the mid-mark. Key informants 11, 12 and 13 were immigration officials from South Africa. However, it is important to note that in Musina the scores for Special Economic Zones projects were very high, up to 70%. In Beitbridge Special Economic Zones projects were still far behind, with most key informants scoring a zero, and only 2 scoring 1 and 2 respectively. On average, the key informants indicated that 34% had been achieved in terms of addressing infrastructure challenges. Information sharing was achieved to a level of 16%. The Inputs that had been set aside to implement the terms of reference were only 7% of what was needed. The progress for Special Economic Zones was only 23%. Easing the movement of people had not been achieved at all. This also corresponds with what the local citizens indicated, that their movement across the border had not been eased at all. Most respondents indicated that the twinning agreement requires a jumpstart to facilitate its projects. Figure 5.11 now shows generally how the spatial planning goals were being prioritised over the years.

Figure 5.11: Prioritisation of the twinning spatial planning goals from 2011-2016



Source: Author's fieldwork 2016

Figure 5.11 above shows that soon after the twinning agreement was signed the goals were highly prioritised. Key informants explained that between 2004 and 2007 meetings were conducted and goals identified. Plans were put in place to implement them. However, from 2009 onwards the challenges explained in section 5.9.3 started unfolding and plans started falling apart as indicated in the graph. These included the economic meltdown (Parkins, 2011), establishment of two local municipalities on Beitbridge (Netsianda, 2011) and lack of a stand-alone budget for the twinning agreement. These contributed to the reduction in the prioritisation of the twinning goals. Most respondents also explained that they needed an overseer to revitalise the twinning projects. This is supported by Buxbaum (2014) who unpacked Johannesburg's city-to-city partnerships and concluded that the absence of a twinning champion can contribute the failure to achieve the goals and objectives of the twinning agreement. The majority of the key informants indicated that they needed a jumpstart but were not sure who should be responsible. At least 80% of the key informants, especially from Beitbridge Town Council indicated that they were interested in reviving the twinning relationship which was fading away. According to them the twinning agreement had a good start but the implementation process was not effective. However, they still felt that it still could succeed if given another chance.

5.12 Key informants' general satisfaction with the twinning program

To understand the general satisfaction levels of the key informants with the implementation of the twinning program they were asked to indicate their overall satisfaction level. Table 5.11 above shows their responses.

Table 5.11: Key informants' general satisfaction with the twinning program

	Musina local municipality						Beitbridge Town Council					Border post (SA and Zim)		
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14
Highly satisfied														
Satisfied														
Fairly satisfied								✓						
Not satisfied	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓

Source: Author's fieldwork 2016(Sample size 14 respondents)

93% of the respondents indicated that they were not satisfied with the implementation of the twinning agreement because the goals had not been achieved, resources were inadequate, meetings were no longer conducted and they no longer communicated. Key informant 4, clearly expressed dissatisfaction thus:

"I am not happy with the way this twinning was conducted, one moment we were so energetic signing the memorandum, but the next moment everyone is minding his own business."

However, key informant 8 indicated that he was fairly satisfied with the implementation of the twinning agreement as from 2004 up to 2006. He indicated that after 2006 the implementation literary stopped in their task team. All respondents indicated that they still had problems which needed municipal cooperation to address them. These include CBD congestion, dilapidated roads, inadequate pedestrian pavements and illegal waste dumping. Generally, the municipal officials were not satisfied at all by how they conducted the twinning agreement's implementation.

5.13 Chapter summary

This chapter has presented data on assessing the impact of trans-border spatial planning through municipal twinning between Musina local municipality and Beitbridge Town Council, i.e. contextual evaluation, input evaluation, process evaluation and outcome evaluation. This also covered the challenges involved in trans-border spatial planning and success factors. The sources of the data included secondary data i.e. Musina Integrated Development Plans; Musina Spatial Development Framework; Beitbridge Strategic Plan; Legislations; articles and

textbooks. Primary data that was collected using questionnaires from respondents and key informants was presented, interpreted and analysed. The collected data was presented in the form of tables, images and graphs. The data collected managed to answer the research study's objectives, through presenting the impact indicators which were outlined in the research design namely, contextual issues of the agreement; initial planning of the agreement; Inputs; processes involved; and outcomes.

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0: Introduction

This chapter presents the summary of the research findings from the analysis provided in Chapter 1 to 5. In view of the objectives set in Chapter 1 and the analysis that followed through field observation, informant interviews and extensive literature review, the study unpacked the impact of on trans-border spatial planning using insights from the Musina-Beitbridge twinning agreement that was signed between South Africa and Zimbabwe. The analysis that follows provides a deductive summary of the entire research,` culminating in the conclusion, recommendations and future research areas.

6.1 Summary of research findings

At the beginning of the study our task was to analyse the twinning Terms of Reference in order to explore the tangible benefits that achieved since the agreement was signed in 2004. A trans-border twinning impact evaluation survey approach was adopted for this study and was prompted by the challenges faced by two border towns. The process of assessment involved evaluating the achievements of cooperation objectives against predetermined criteria. This included a systematic collection of data on selected indicators to ascertain the extent of progress made towards the achievement of twinning goals and objectives. The survey interrogated critical questions on the outcomes of the twinning agreement between Musina LM and Beitbridge TC. The reason for evaluating the progress of the cooperation was to determine the extent to which the objectives of the twinning agreement had been achieved and consequently determine the impact. The study also provided evidence-based research results on what is working and what is not working, as well as explaining each circumstance from a research and scientific viewpoint.

The twinning agreement between Musina local municipality and Beitbridge Town Council faced a number of challenges that resulted in a lower impact on trans-border spatial development due to the slower implementation progress. The challenges which affected the twinning agreement as attested by the key informants and respondents include: dissolution of the Beitbridge Rural District Council to establish the Town Council; inadequate resource allocation (no standalone budget); the lack of an enforcing legal framework; the departure of officials due to completion of terms of office; different legislations; lack of a twinning champion;

inadequate public participation processes; fewer meetings being conducted; economic deterioration in Zimbabwe; lack of time bound goals and inadequate marketing of the twinning agreement. The challenges were manifested by pressing problems such as lack of bus ranks, decaying infrastructure, inadequate ablution blocks, inadequate pavements for pedestrians, inadequate tarred roads, and traffic congestion in both Central Business Districts. As of 2016 the two local municipalities did not have funds to develop their CBDs. They still depend on government grants which are used for pressing issues. One aim of the twinning agreement was to share ideas on projects which could generate income for the development of Musina and Beitbridge towns but this was inadequately addressed.

The local residents expressed dissatisfaction and outlined a number of issues that they felt should have been addressed by the twinning agreement. They indicated that they should be engaged more in the twinning agreement so that they are aware of whatever is happening. The key informants admitted that although they had a keen interest to revive the twinning agreement they did not have any strategy or responsible person to kick-start it again. The Musina IDP of 2015/2016 stated that the joint implementation committees from Beitbridge and Musina needed to be resuscitated for the twinning to work.

This study makes a number of recommendations that can be explored by the two local municipalities to revive their twinning implementation. These are explained in detail in section 6.3.

6.2 Conclusion of research findings

The aim of the study was to assess the impact of strategies used to address trans-border spatial development cooperation using the Musina-Beitbridge twinning agreement as a case study. Although there is a paucity of academic literature on twinning agreements we deduced that the elements of successful twinning agreements include identifying valuable twinning opportunities and good partners, conducting benchmarking exercises, continuous communication and marketing the twinning adequately. In addition, successful twinning agreements depend on the ability to outline SMART goals, budgeting for twinning resources, initiating necessary changes as the twinning evolves, conducting public participation programmes, distributing clear roles as well as creating an enabling environment. On the basis of the research findings, we can conclude that the Musina-Beitbridge twinning agreement of 2004, needs to be revisited and revived because implementation ceased some years ago. Joint coordination meetings are no longer being conducted, benchmarking exercises were not conducted, the goals were not time-bound, no standalone budget is available and no central

secretariat. Further, some local residents were not aware of the twinning's existence and there is inadequate communication between the stakeholders involved. In order to address these challenges and enhance the impact of trans-border spatial development cooperation the study advanced some short term and long term recommendations. As a result of the findings that the transborder spatial planning cooperation did not achieve any significant impact on the local residents from the two towns

6.3 Recommendations

This section advances some recommendations for enhancing the impact of trans-border spatial development planning through the Musina-Beitbridge twinning agreement of 2004. Recommendations were suggested as follows:

6.3.1 Appointment of twinning champions and town planners

The current joint implementation committee of Musina LM and Beitbridge TC should appoint twinning champions. These professionals should not only be involved from the start in initiating interest in the twinning, but also to actively and continuously work at making the twinning work in line with the terms of reference. Twinning champions should be alert all the time and continuously scan the environment for the continuous improvement and well-being of the twinning agreement. They should also have excellent communication skills and the authority to delegate whenever there is need. Twinning champions can also be referred to as "link persons" because they are the officials who continue to link the two municipalities. Key informants alluded to the fact that they did not know the person who was supposed to press the button to revive the Musina-Beitbridge twinning. Therefore, twinning champions should address this void because they will be overseers from both sides. It is also very important to appoint town planners in the spatial planning task team as they play an important role in the area of spatial development cooperation. Each task team should have a professional who will automatically be the champion.

6.3.2 Establishment of a central secretariat

The two local municipalities should establish a central database where all information pertaining to the twinning agreement should be stored. This makes it easier for all stakeholders to access the terms of reference, responsibilities, minutes of meetings, contact details, sending enquiries as well as communicating effectively. It also makes it easier to schedule meetings and to send reminders to all stakeholders. A central secretariat can also act as a marketing strategy to other interested parties like donors and politicians. It was difficult for the

researcher to access some of the documents that she requested because they could not be located in the municipal offices. Had the central secretariat been available, the researcher could have accessed the documents easily without travelling to the municipal offices.

6.3.3 Preparation of a concrete implementation plan

The joint implementation committee together with the twinning champions must prepare a solid implementation plan for the twinning agreement to work. The implementation plan should contain a vision, specific objectives, inputs, division of labour, marketing strategy and a funding mechanism. The twinning agreement's life span should be clearly stated. Specific objectives should be clearly articulated with linked projects and milestone trackers. Roles and responsibilities should be clearly outlined so that if something is not done properly they can easily track the responsible actor. Such partnerships should be marketed on a very large scale to attract investors as well as engaging the public on what is taking place. There should be a marketing strategy so that the twinning agreement can be advertised through newspapers, radio stations, and Internet and bill boards. In addition, no twinning can function without funding, hence the need for the implementation plan to contain a section on how the twinning agreement will be funded. Funding mechanisms usually depend on the type of twinning agreement, the stakeholders involved as well as support from the national government of the twin municipalities involved. Therefore, an implementation plan should be composed of the following:

- vision;
- specific objectives;
- inputs, division of labour;
- marketing strategy; and
- a funding mechanism.

6.3.4 Establishment of a public participation model.

The local residents should be engaged through different public forums. For the twinning agreement to work, the public should be engaged not only during the implementation stage, but from the conception stage. After all, the local residents are the direct beneficiaries of these partnerships, hence they should be informed on what is happening. There are different types of public participation programmes which range from IDP Forum, general public forums, road shows and stakeholder meetings. The Musina-Beitbridge Joint implementation committee can set up a committee outside the bureaucratic structure of the two municipalities. Such a

committee will function as the primary connector between the public and municipal officials. However, public participation models may differ depending on the resources available.

6.3.5 Establishing a legal framework

A legal framework should combine principles, standards and morals on how twinning stakeholders are supposed to act and conduct themselves. As indicated by key informants they twinning stakeholders needed a legal framework which they could abide by. The way the twinning had been structured shows that there were no principles which bound stakeholders. Even if someone stopped performing his duties no legal framework could be used to ensure that they performed tasks assigned to them. Therefore, for such kind of partnerships to work there is need for some form of rules and regulations which should be in line with the national policy framework.

6.3.6 Summary of recommendations

Table 5.12 below summarises the recommendations made in sections 6.3.1 to 6.3.5.

Table 5.12 Summary of recommendations

Recommendation	Project	Responsibility
1. Appoint twinning champions and town planners	Champions from Beitbridge and Musina, who will oversee the implementation from both sides. Each task team should have a professional.	Musina LM and Beitbridge TC
2. Establish a central secretariat	The secretariat records all activities that are being undertaken into one database which can be accessed by both municipalities	Musina LM and Beitbridge TC
3. Preparation of a concrete implementation plan with all elements	The twinning agreement should contain a vision, specific objectives, inputs, division of labour, bench marking exercises, marketing strategy, funding mechanism and a life span.	Musina LM and Beitbridge T.C
4. Establishing a public participation model	The local residents should be engaged making use of the available resources	Musina LM and Beitbridge
5. Binding legal framework	A committee that stands for the rules and regulations for the twinning agreement should be established, to develop their own framework which binds the stakeholders to their duties	Musina LM and Beitbridge TC

Source: Author's own construct 2017

Table 5.12 above summarised the suggested recommendations, indicating the responsible authority as well as some project details on each recommendation.

6.4 Areas for future research

There are some areas that the present study did not cover. The study focused on North-North twinning agreements only. Future studies could focus on comparative analysis of South-South

twinning agreements and North-South twinning agreements. It would be relevant to conduct a further study based on section 5.9.3., i.e. more in-depth study on the challenges faced and their extent across national borders. Also, of interest could be the need assess success factors of trans-border spatial development in developing countries and compare it with the developing world. This would allow for a finer image of how trans-border spatial development is being conducted across the globe and enable a more conclusive analysis.

6.5 General Conclusion

The study assessed the impact of trans-border spatial planning by exploring municipal twinning implementation as a component of trans-border planning. This was conducted through an impact evaluation survey to determine whether twinning goals and objectives were achieved. The aim of the research was to collect data largely from the implementers of the twinning, and also to get opinions from the beneficiaries of the twinning. The study revealed that municipal twinning partnerships demand a great deal of investment in time, staff, money and effort. The study outlined the evidence of what the twinning agreement achieved and what was not achieved, thereby determining its impact. The study showed that the challenges faced in municipal twinning agreements range from institutional and structural to financial. We suggested that to enhance trans-border spatial development co-operation they should introduce twinning champions, a central secretariat, legal framework, benchmarking exercises, funding mechanisms, a public participation model and a clear marketing strategy. In addition, twinning agreements should have a timeframe which also entails a vision and specific goals to enhance trans-border spatial development co-operation. The key informants indicated that over the years, the Musina–Beitbridge twinning agreement has remained merely as a documented framework but they are willing to revive it if there is a strategy.

This chapter marks the end of the study. In Chapter One, the study introduced the focus of the study at the same time outlining the objectives of the study. Chapter 2, presented the research design, whilst Chapter 3 reviewed literature pertaining to trans-border twinning. A situational analysis of Musina local municipality and Beitbridge Town Council was given in Chapter 4. The situational analysis linked the status quo of the study area to trans-border spatial development. The data analysis and interpretation was covered in Chapter 5, where the responses from key informants and general respondents were interpreted. The last Chapter gave a summary of research findings and suggested recommendations.



The study addressed all the objectives and outlined areas for future studies but concluded that the agreement did not make any significant impact with respect to spatial planning. The next sections consists of the Harvard reference list and appendices.

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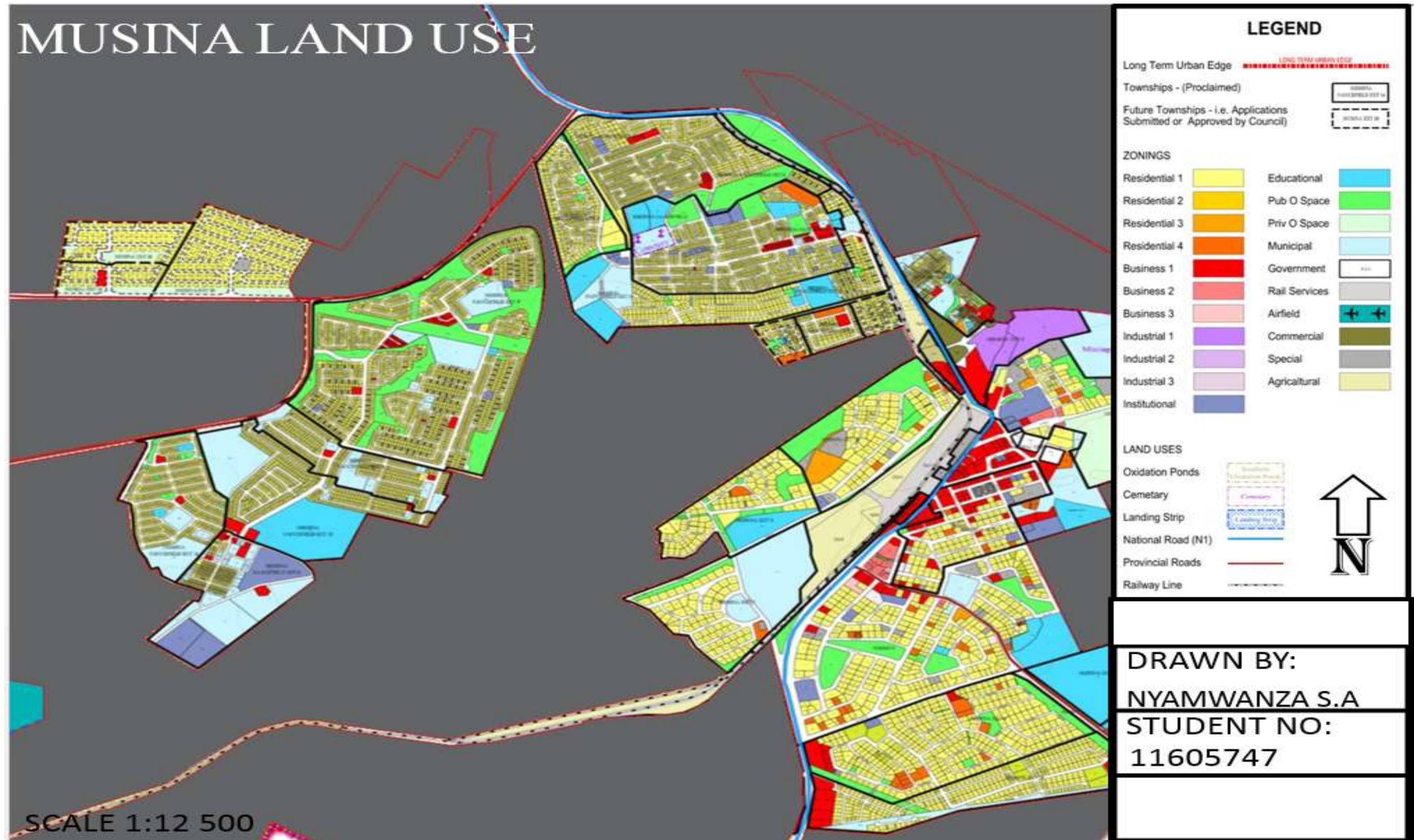
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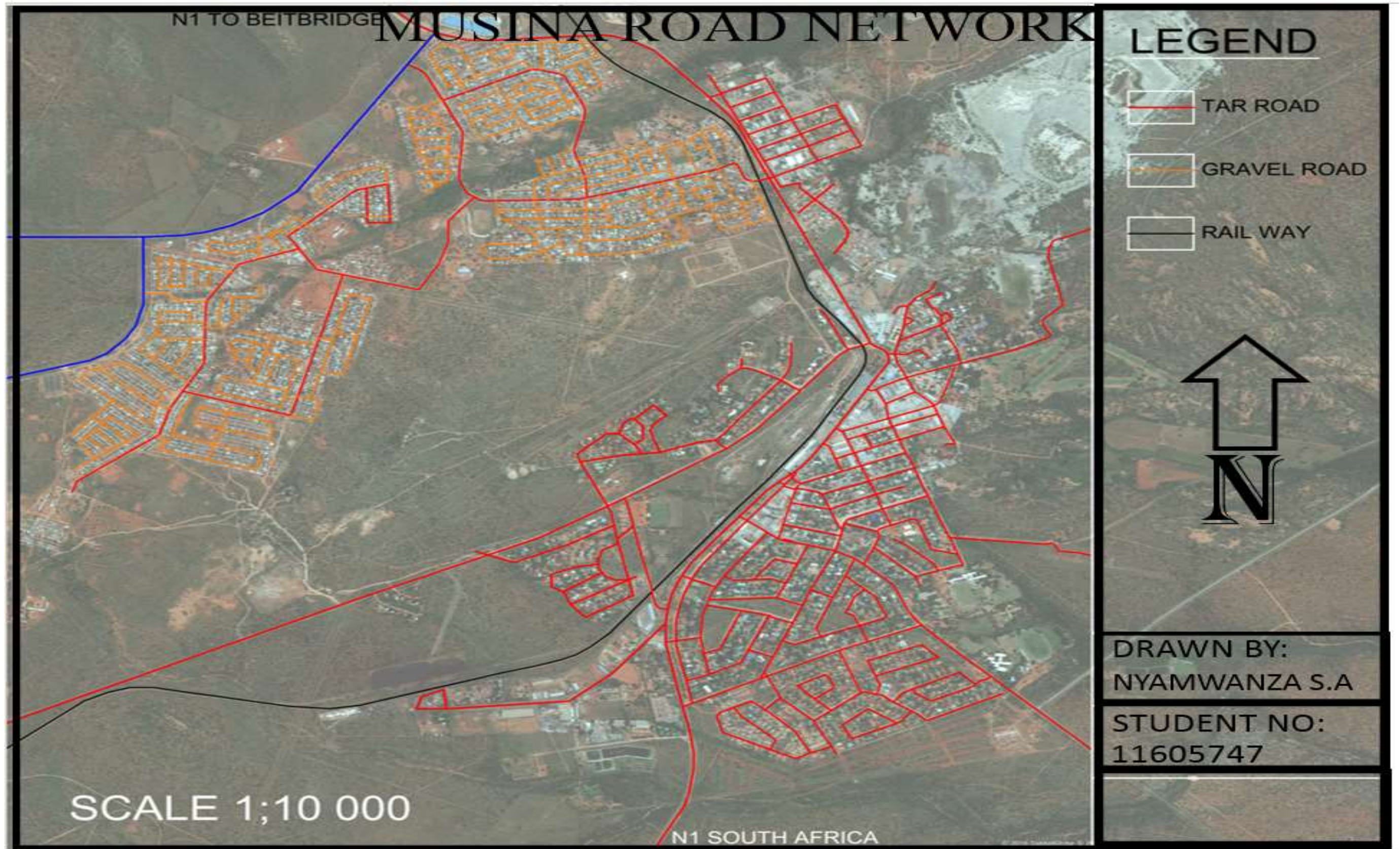
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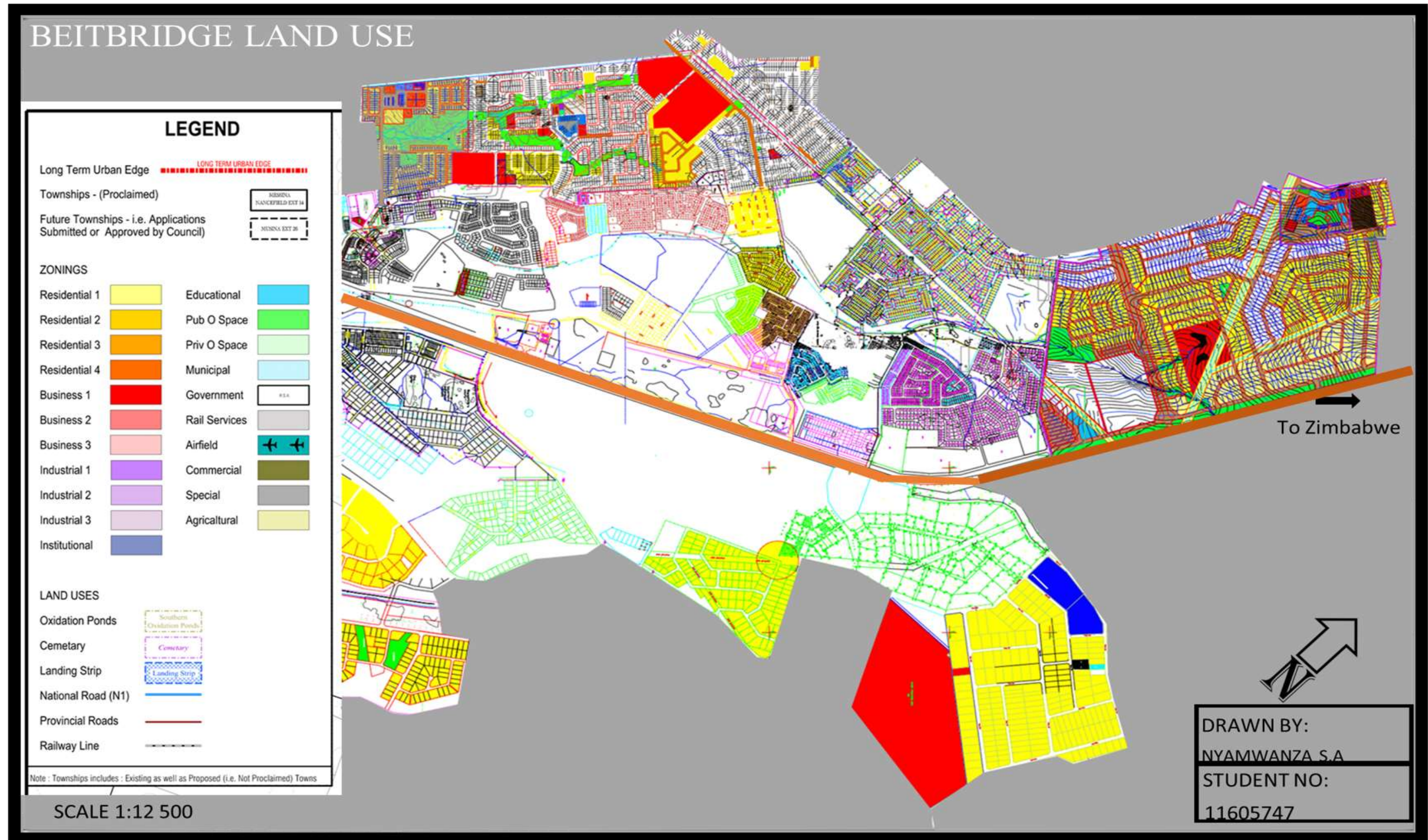
Source: Author's fieldwork 2016

Appendix 2: An extract of the status of the transportation network in Musina

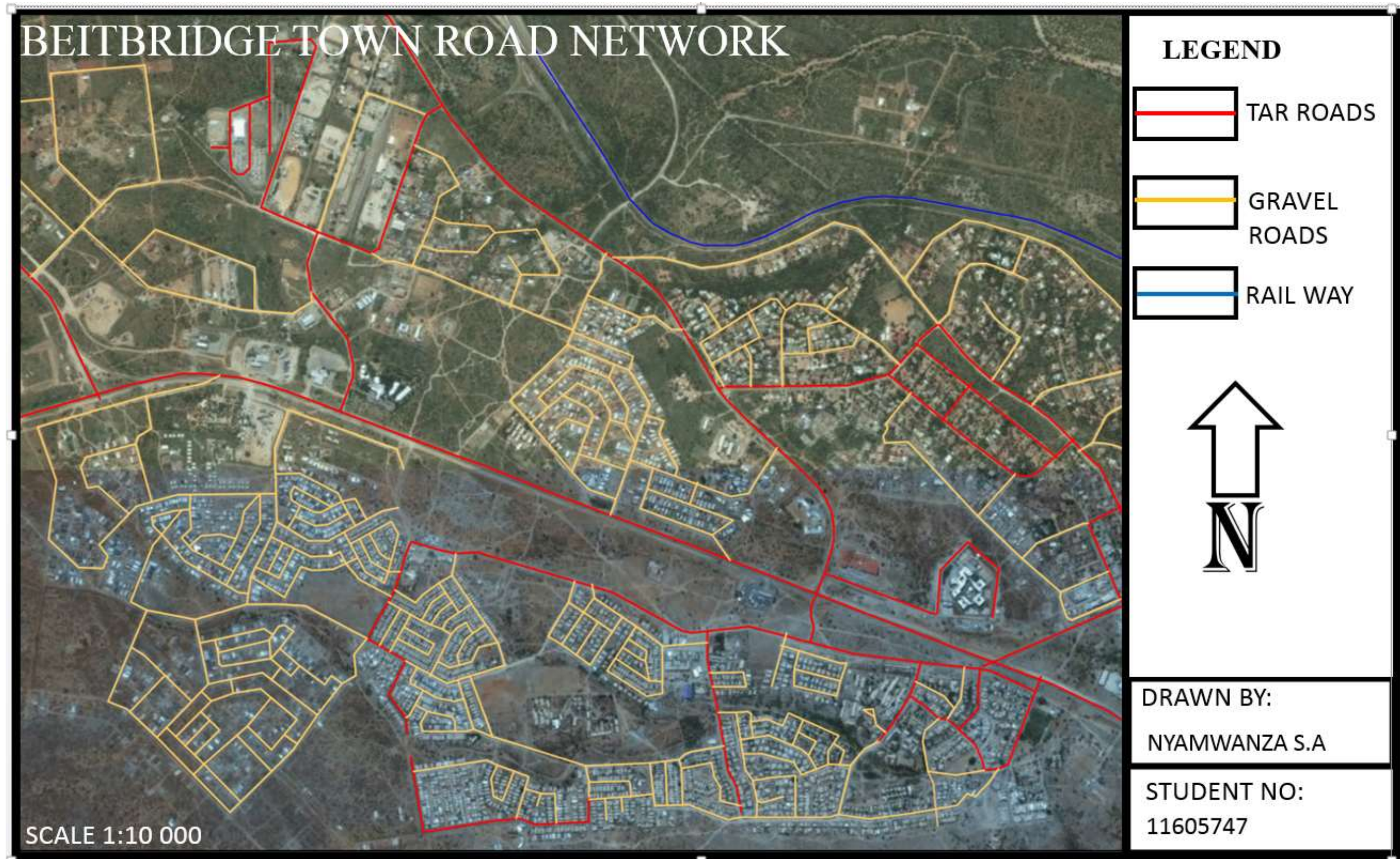


Source: Author's fieldwork 2016

Appendix 3: An extract of major land Uses and Zoning in Beitbridge Town, 2016



Source: Department of Physical, Planning Matebeleland South Province, Zimbabwe (2016)



Source: Author's field photographs 2016

Appendix 5: Request for permission to conduct a study in Musina Local municipality



University of Venda
School of Environmental Sciences

Department of Urban and
Regional Planning
University Road, Thohoyandou, Limpopo
Private Bag X5050, Thohoyandou, 0950
Limpopo, South Africa
☎ +27 15 962 8585
☎ +27 15 962 8597
✉ james.chakwizira@univen.ac.za
✉ azwidowi.mashangu@univen.ac.za

To: The Municipal Manager
Musina local municipality
Private Bag X611
Musina
0900

Date: 19 March 2016

Ref: Request for Permission to conduct an academic study in Musina Municipality

With reference to the above mentioned subject, I the undersigned hereby write to request permission for two (2) Urban and Regional Planning students in their final year to conduct their research in your municipality. The students and their research topics are as follows:

1. Nyamwanza S.A. (Student Number: 11605747)

Research topic: An Analysis of Trans-border Spatial Planning: A case study of Musina and Beitbridge's twinning agreement.

2. Radebe K.S. (Student number: 11640594)

Research topic: Assessing road infrastructure in meeting the increasing demand of vehicles: A case study of Musina town, Musina local municipality.

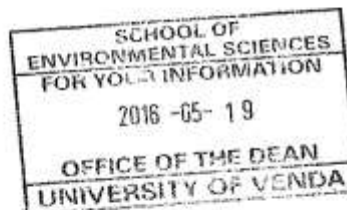
Our request is that you may kindly authorize their researches within the municipality to enable them to obtain relevant data/documentation from the relevant sections of the municipality

Your assistance in this regard will be very much appreciated. We will appreciate it very much if you kindly provide assistance through Mr Musiwaio Mphephu, (Town Planning Manager).

Thank you.



Head, Urban and Regional Planning



Appendix 6: Request for permission to conduct a study in Beitbridge Town Council



University of Venda

School of Environmental Sciences

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Regional Planning

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Limpopo, South Africa

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+27 15 962 8597

james.chakwizira@univen.ac.za

azwidowi.mashangu@univen.ac.za

To: The Town Secretary
Beitbridge Town Council
P.O Box 164
Beitbridge

Date: 19 May 2016

Ref: Request for Permission to conduct an academic study in Beitbridge Town Council Area

With reference to the above mentioned subject, I the undersigned hereby write to request permission for Miss Nyamwanza Shylet Anesu, Student number 11605747 to conduct her Masters Degree research within your department. Her research topic is entitled: "An Analysis of Trans-border Spatial Planning: A case study of Musina and Beitbridge's twinning agreement."

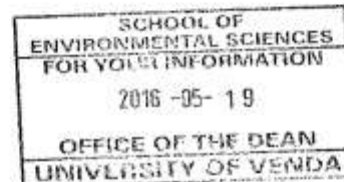
Our request is that you may kindly authorize the student's research to enable her to obtain relevant data/documentation from the relevant sections of Beitbridge Town Council.

Your assistance in this regard will be very much appreciated.

Thank you.



Head, Urban and Regional Planning



Appendix 7: Request for permission to conduct a study in Beitbridge Rural District Council



University of Venda
School of Environmental Sciences

Department of Urban and Regional Planning

University Road, Thohoyandou, Limpopo
Private Bag X5050, Thohoyandou, 0950
Limpopo, South Africa

+27 15 962 8585

+27 15 962 8597

james.chakwizira@univen.ac.za

azwidowj.mashangu@univen.ac.za

To: The Chief Executive Officer
Beitbridge Rural District Council
P O Box 32
Beitbridge

Date: 19 May 2016

Ref: Request for Permission to conduct an academic study in Beitbridge Rural District Council Area

With reference to the above mentioned subject, I the undersigned hereby write to request permission for Miss Nyamwanza Shylet Anesu, Student number 11605747 to conduct her Masters Degree research within your municipality. Her research topic is entitled: "An Analysis of Trans-border Spatial Planning: A case study of Musina and Beitbridge's twinning agreement."

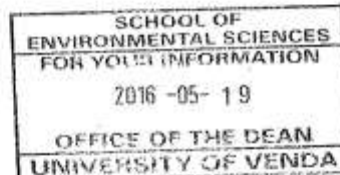
Our request is that you may kindly authorize the student's research to enable her to obtain relevant data/documentation from the relevant sections of Beitbridge Rural District Council.

Your assistance in this regard will be very much appreciated.

Thank you,



Head, Urban and Regional Planning



Appendix 8: Request for permission to conduct a study at Beitbridge border post, Zimbabwean side



University of Venda
[School of Environmental Sciences]

**Department of Urban and
Regional Planning**

University Road, Thohoyandou, Limpopo
Private Bag X5050, Thohoyandou, 0950
Limpopo, South Africa

☎ +27 15 962 8585

☎ +27 15 962 8597

✉ james.chakwizira@univen.ac.za

✉ azwidowi.mashangu@univen.ac.za

To: The Principal Director of Immigration
Department of Immigration
Linquenda House
P.O. Bag 7717
Causeway
Harare
Zimbabwe

Date: 11 July 2016

Subject: Request for permission to conduct a study at Beitbridge border post, Zimbabwe.

I, the undersigned humbly request that you grant the above-mentioned permission to enable Miss Shylent Anesu Nyamwanza, Student number 11605747, to undertake her Masters degree research entitled: "Assessing the impact of transborder spatial development cooperation. Insights from the Musina-Beitbridge twinning agreement between South Africa and Zimbabwe."

Our request is that you may kindly authorize the student's research to enable her to obtain relevant data/documentation from the relevant sections of the immigration office.

Your assistance in this regard will be very much appreciated.

Thank you.



Dr. James Chakwizira

Head, Urban and Regional Planning, University of Venda

Appendix 9: Request for permission to conduct a study at Beitbridge border post, South African side



University of Venda

School of Environmental Sciences

Department of Urban and Regional Planning

University Road, Thohoyandou, Limpopo
Private Bag X5050, Thohoyandou, 0950
Limpopo, South Africa

+27 15 962 8585

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james.chakwizira@univen.ac.za

azwidowi.mashangu@univen.ac.za

To: The Head of Immigration services
Beitbridge border post, South Africa
Private Bag X601
Musina
0900

Date: 19 March 2016

Ref: Request for Permission to conduct an academic study at Beitbridge border post

With reference to the above mentioned subject, I the undersigned hereby write to request permission for Miss Nyamwanza Shylet Anesu, Student number 11605747 to conduct her Masters Degree research within your department. Her research topic is entitled: "An Analysis of Trans-border Spatial Planning: A case study of Musina and Beitbridge's twinning agreement."

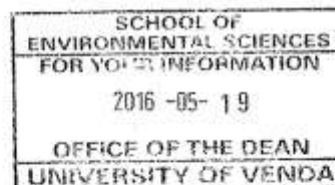
Our request is that you may kindly authorize the student's research to enable her to obtain relevant data/documentation from the relevant sections of the immigration office.

Your assistance in this regard will be very much appreciated.

Thank you.



Head, Urban and Regional Planning



BEITBRIDGE TOWN COUNCIL

290 JUSTITIA ROAD
P. O Box 164
BEITBRIDGE
ZIMBABWE



TEL: (+263)86 22265,23793, 23728
23362, 23367
FAX: (263) 86 22466
E-mail: bbtowncouncil@gmail.com

04 July 2016

The Head
Department of Urban and Regional Planning
University of Venda
Thohoyandou Limpopo
SOUTH AFRICA

Dear Sir/Madam

RE: Request for permission to conduct a research at Beitbridge Town Council

Beitbridge Town Council acknowledges receipt of your letter dated 19 May 2016, in relation to the above stated request. This office has no objection to your request; you are free to contact the undersigned for further assistance. However, you are advised that the research findings of this study must be used solely for academic purposes.

It is our hope that the study will substantially contribute to knowledge in Trans border spatial planning for both Beitbridge Town Council and Mussina Municipality. In this regard we request a copy of the final dissertation.

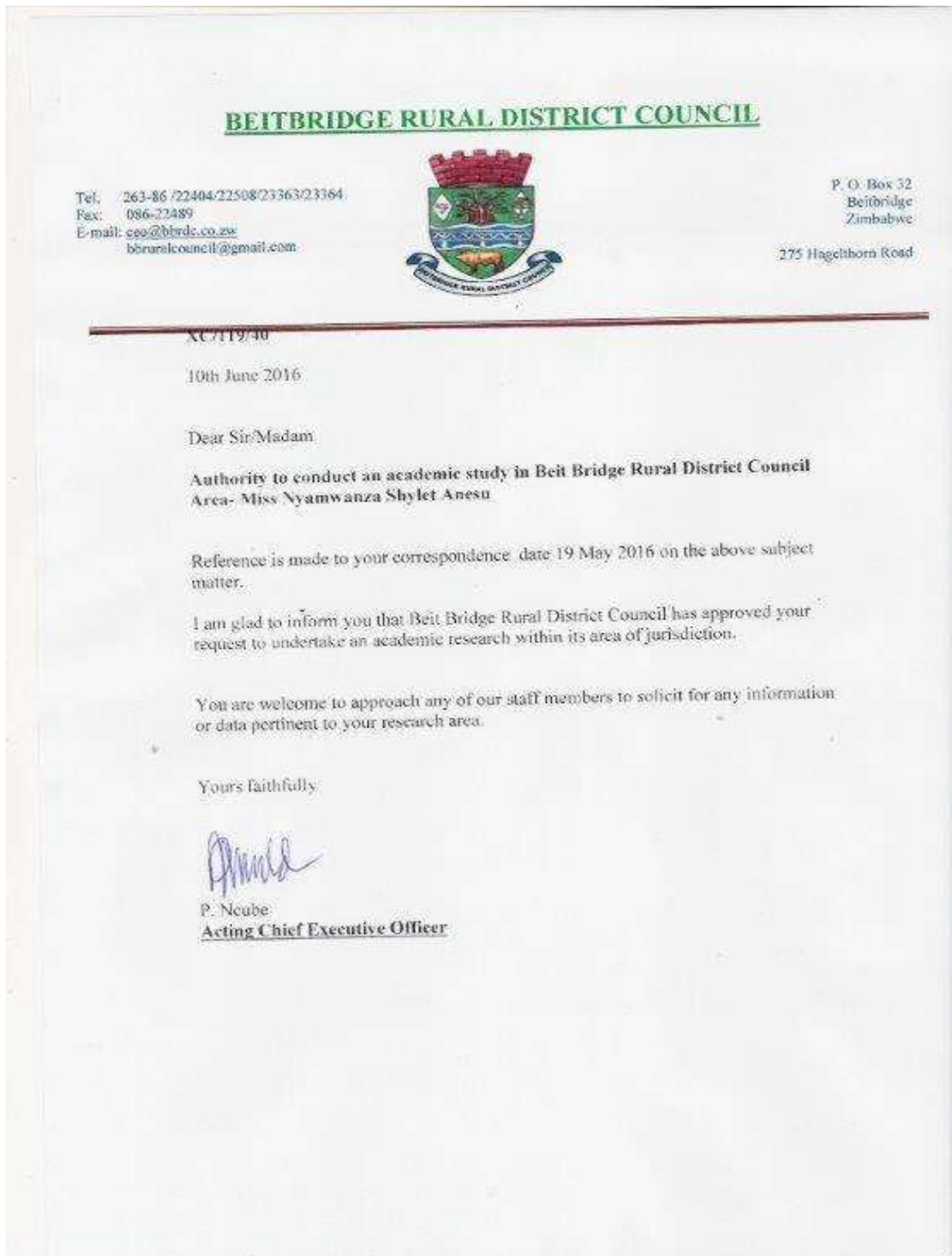
Yours Faithfully



L. Ramakgapola
TOWN SECRETARY



Appendix 11: Approval letter from Beitbridge Rural District Council



Appendix 12: Local respondents' questionnaire



School of Environmental Sciences

Department of Urban and Regional Planning

Student: Miss Nyamwanza Shylet Anesu (0783990186) Email: anesunyax@yahoo.com

Supervisor: Professor Peter Bikam

Co supervisor: Dr. James Chakwizira

This questionnaire is directed to residents from Musina/Beitbridge local municipality.

I am currently conducting a study entitled **“Assessing the impact of transborder spatial development cooperation: Insights from Musina-Beitbridge’s twinning agreement between South and Zimbabwe.”** This is part of the requirements for the award of Masters Degree in Urban and Regional Planning. Therefore I am kindly asking you to complete this questionnaire. Your response will be solely used for academic purposes only.

Administrative information

Date:

Respondent number:

Place of interview:

INSTRUCTION FOR ALL QUESTIONS: Respond by filling in your answer in the blank spaces provided, where options are provided please tick (✓) the appropriate answer.

SECTION A: SOCIO-DEMOGRAPHIC PROFILE

1. Ward:

1		2		3		4		5		6	
---	--	---	--	---	--	---	--	---	--	---	--

2. Age group

15-25		25-35		36-45		46-55		56+	
-------	--	-------	--	-------	--	-------	--	-----	--

3. Gender:

Female		Male	
--------	--	------	--

4. Home language:

Tshivenda		Shona		Other(Specify)	
-----------	--	-------	--	----------------	--

5. Employment status

Unemployed		Employed		Self employed	
------------	--	----------	--	---------------	--

SECTION B: PUBLIC PARTICIPATION EVALUATION AND RESIDENTS' BENEFITS FROM THE INTEGRATION AND IMPLEMENTATION OF SPATIAL DEVELOPMENT PLANNING.

6. As a local resident are you aware of the Musina-Beitbridge twinning agreement of 2004?

Yes		No	
-----	--	----	--

If your answer to question 6 is yes, please proceed to question 7.

7. Did you participate in any activities towards joint spatial development between Musina local municipality and Beitbridge local municipality?

Yes		No	
-----	--	----	--

8. Which program was your first encounter with the twinning agreement?

.....

9. Through which forums do you communicate with your local municipality?

IDP forums		General public forum		Road shows		Stakeholder meetings	
------------	--	----------------------	--	------------	--	----------------------	--

Other forums (Please specify).....

10. Which year did you first learn about the twinning agreement?

11. Tick (✓) the areas where you participated and cross(X) areas where you didn't participate.

On each area that you participated, indicate how you participated.

Area	Participation/No participation	How did you participate
Community representatives during stakeholder forums		

Infrastructure development(taxi ranks, Roads, ablution blocks, facilities around the border post)		
Information sharing		
Expertise sharing		
Establishment of Special economic zones		
Other(please specify)		

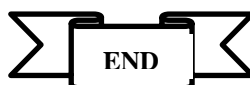
12. Tick (✓) areas which you benefited and cross(X) areas that you didn't benefit. On each area that you benefited indicate how you benefited.

Area	Did you benefit/ didn't benefit	Benefits
Community representatives during stakeholder forums		
Infrastructure development(taxi ranks, Roads, ablution blocks,)		
Facilities and services around the Beitbridge border post		
Information sharing		
Expertise sharing		
Establishment of Special economic zones		
Other(please specify)		

13. What are your wishes/desires with regards to spatial development planning in Musina/Beitbridge?

Short term	Medium term	Long term

14. Any other issues or comments that you wish to bring to the researchers attention?
Thank you for participating in this study.





Appendix 13: Key informants' questionnaire



School of Environmental Sciences

Department of Urban and Regional Planning

Student: Miss Nyamwanza Shylet Anesu (0027783990186) Email: anesunyax@yahoo.com

Supervisor: Prof. Peter Bikam

Co supervisor: Dr. James Chakwizira

This questionnaire is directed to key informants from Beitbridge Town Council/ Musina local municipality

I am currently conducting a study entitled **“Assessing the impact of transborder spatial development cooperation: Insights from Musina-Beitbridge’s twinning agreement between South Africa and Zimbabwe.”** This is part of the requirements for the award of Masters Degree in Urban and Regional Planning. Therefore I am kindly asking you to complete this questionnaire. Your response will be solely used for academic purposes only.

Administrative information

Date:

Respondent number:

Place of interview:

Contact information of key informant

Name:

Department:

Title/Position:

Contact details:

INSTRUCTION FOR ALL QUESTIONS: Respond by filling in your answer in the blank spaces provided, where options are provided please tick (✓) the appropriate answer. **Any maps, minutes/reports and pictures that support your responses will be highly appreciated.**

149	Outcomes of Trans-border Spatial Development Cooperation. Insights Musina and Beitbridge’s Twinning Agreement.
-----	--

SECTION A: CONTEXTUAL EVALUATION OF THE TWINNING AGREEMENT

1. What were the reasons that influenced Beitbridge Town Council to twin/partner with Musina local municipality?

.....

2. Did your unit undertake any benchmarking exercise to achieve your departmental objectives?

Yes		No	
-----	--	----	--

3. If your answer to question 2 above is yes, please indicate the exercise that you took?

.....

4. Respond to the following questions (3.1 to 3.5) by filling in the blank spaces provided next to the question. **If the question is not related to your departmental responsibilities just respond by writing the department/section that is responsible for that.**

Question	Response
3.1 From your section/department, what did you put in place to implement the terms of reference in the twinning agreement?	
3.2 How did your department address inadequate and decaying infrastructure in Beitbridge town?	
3.3 Did you share any information and expertise with Musina local municipality? If yes, please explain.	
3.4 How did you integrate spatial planning legislations from South Africa and Zimbabwe?	
3.5 Indicate the arrangements that were put in place to establish Special Economic Zones (SEZ) in Beitbridge border town.	

SECTION B: INPUT EVALUATION OF THE TWINNING AGREEMENT

5. In your unit/department, what were your desired outcomes achieved since 2004?

.....

6. Indicate which inputs were required from your unit/department in terms of the following inputs from 4.1 to 4.6;

Inputs	Inputs that were set aside
7.1 Budget	
7.2 Staff	
7.3 Offices	

7.4 Time	
7.5 Planning logistics and Technical arrangements	
7.6 Central Secretariat	

7. What were the tasks allocated to your department/unit?

Task	Short term	Medium term	Long term

8. Who was responsible for the allocation of your unit's tasks?

.....

9. To what extent were your goals achieved?

Partially achieved	Completely achieved	Not achieved at all
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10. Please indicate reasons for your answer to question 10 above?

.....

11. On average, how long did it take you to implement the tasks that were given to your unit?

<6 months	7-12 months	13-24 months	3-5 years	6-10 years
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12. What was your implementation plan?

.....

13. Was the planning and implementation process effective?

Yes	No	Not sure
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14. Explain your answer to question 14.

.....

SECTION C: PROCESS EVALUATION OF THE TWINNING AGREEMENT

15. How often do you conduct meetings with your partner municipality? Please provide evidence if available.

Never	weekly	monthly	Twice per year	Annually	Every 2 years
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16. Through which forums do you communicate with local residents?

IDP forums	General public forum	Road shows	Stakeholder meetings
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Other forums (Please specify).....

SECTION D: OUTPUTS EVALUATION OF SPATIAL PLANNING ACHIEVEMENTS

17. Is infrastructure maintenance in Beitbridge town as a result of the twinning agreement?

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Yes		No	
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18. How many town planners were involved from Beitbridge with respect to the preparation of the Regional master plan?

None	one	two	three	four	5 or more
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19. List the spatial planning legislations that were used to implement the twinning TOR?

.....

.....

.....

20. What were the difficulties encountered during the implementation process? (Financial, political, social, administrative etc.)

.....

.....

.....

21. Which factors contributed to the difficulties that were encountered? Tick all factors that contribute and explain.

Tick	Reason	Explanation
	Different financial planning calendars	
	Different legislations	
	Different administrative structures/procedures	
	Departure of officials due to completion of terms of office	
	Financial sources/Funding instruments	
	Other reasons: Please explain	

22. To what approximate extent has the Special Economic Zones been implemented? Provide evidence if applicable.

<5%	6-10%	11-20%	21-40%	45-50%	>50%
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SECTION E: OUTCOMES EVALUATION OF THE TWINNING AGREEMENT

23. On a scale of 1-10, please rate your department in terms of the level of achievement of objectives and appropriateness against targets? Explain your answer.

24. In which areas do you think each municipality did well in making the twinning work?

.....

.....

25. How can the twinning agreement with respect to your unit be implemented to fully achieve the goals?

26. What do you consider to be the major obstacle(s) to the twinning agreement?

.....

.....

Thank you for participating in this study.



Appendix 14: Letter from the language editor

15 March 2016

TO WHOM IT MAY CONCERN

RE: EDITING OF ANESU SHYLET NYAMWANZA'S MASTERS DISSERTATION
(STUDENT NUMBER 11605747)

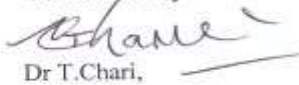
This letter serves to confirm that I have edited **ANESU SHYLET NYAMWANZA'S MASTERS DISSERTATION** titled "**Outcomes of Trans-Border Spatial Development Cooperation: Insights from Musina and Beitbridge's Twinning Agreement**"

My work entailed identifying and correcting grammatical, typographical, formatting and related editorial errors in the document.

I have recommended a number of corrections related to grammar, typographical errors, sentence construction and formatting.

Should there be any queries regarding the editorial aspects of the document please do not hesitate to contact me.

Yours sincerely



Dr T. Chari,

Lecturer, Department of Communication and Applied Language Studies, University of Venda
(BA, DMCS, MA, PhD)

Appendix 15: Turnitin Plagiarism check report

