

# THE VIABILITY OF CORRIDOR DEVELOPMENT BETWEEN BLOEMFONTEIN AND WELKOM

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## ABSTRACT

**Purpose of this paper** - From a South African point of view, and more generally an African point of view corridor development is current and very important for future socio-economic growth as seen in the fact that South African Developing Community (SADC) is interested enough in the possible positive outcomes of corridor development. The objectives of this study included the following a literature study determining international/local trends regarding development corridors and regional planning in order to determine its viability (if any) as a development corridor **and an** analysis and assessment of the region's existing development profile (the status quo), including trends and development patterns;

**Methodology/Scope** –In order to determine the economic interaction the industrial areas of the region were investigated more closely. Enterprises that could stimulate export were selected.

**Findings** - A entire region must take part in the process and that for a development axis the two development centres must be linked by means of a communication axis, there must be mutual dependency between the centres, the interaction must have the potential for further development and the axis must grow both economically and physically.

**Research limitations** - The fact that the study area extends over three municipalities and two districts considerably hampered the collection of data.

**Practical implications** – As nodal points are important to development of a corridor and provides economic activities, employment opportunities that stimulates growth and spatial interaction within the corridor, one can now make recommendation on what is possibly needed and what can be looked into from a economic, social and environmental point of view as to realize the sustainability of such a development.

**Value** - During interviews with individuals concerned with the possibility of a development corridor of the R30 and especially with the economic possibilities of revival of Welkom, an action plan took shape. **(Regional road)**

**Keywords:** regional development, development corridor, development nodes

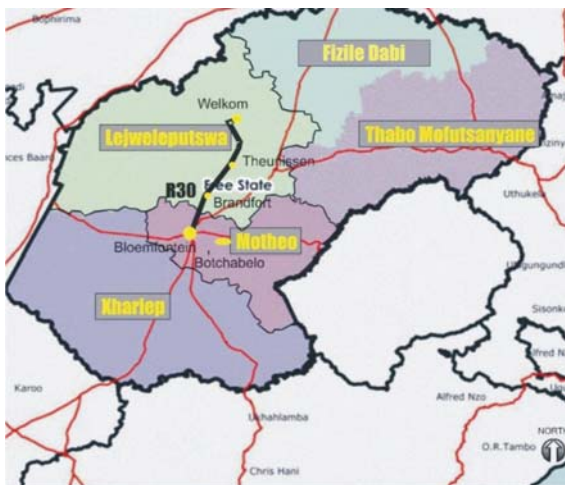
## 1 INTRODUCTION

The objective of a regional planning intervention should be to integrate economic, spatial, social, institutional, environmental, cultural and fiscal strategies in a participatory manner. This supports the optimal allocation of scarce resources, such as public investment, in a region between sectors and geographical areas, as well as across the population, in a manner that would ensure appropriate sustainable development, growth, equity and empowerment of a poor and marginalised area. From a

South African point of view, and more generally an African point of view corridor development is current and very important for future socio-economic growth as seen in the fact that SADC is interested enough in the possible positive outcomes of corridor development. “The SADC Secretariat intends to undertake a study to develop the Corridor/SDI program as a development strategy to accelerate regional economic integration and development. The success of this development is dependent on the cooperation and political commitment of Member States on the Corridor/SDI Program” (SADC News. Online 05/06/2007)

## 2 DELIMITATION OF STUDY

The zone along the R30 Provincial Road in the Free State Province, which links Bloemfontein and Welkom, is regarded as the study area. The relationship between Bloemfontein, centrally situated in the Free State and capital of the province, and Welkom, a mining town situated in the northwestern part of the province, is investigated in this study. The study area extends over about 150 km, and also includes the two rural towns of Brandfort and Theunissen situated along this route. This area is situated within two District Municipalities (Lejweleputswa and Motheo) and covers three Local Authorities (Mangaung, Masilonyana and Matjhabeng)(Please refer to figure 1).



**Figure 1: Study area with regard to the District and Local Municipalities**  
(Source: Own diagram adjusted from Demarcation Board 2002: Online)

## 3. HYPOTHESIS AND METHODOLOGY

The following hypothesis was formulated: The viability of the area along the R30 road between Bloemfontein and Welkom as a potential development corridor. The methodology comprised of qualitative as well as quantitative research methods. The qualitative method applied for information collection is the nominal group technique. A workshop was held at Theunissen where the following role players made contributions: The Municipalities of Masilonyana and Mangaung; Provincial Government Departments and Non Governmental Organisations such as National African Chambers of Commerce (NAFCOC), as well as professionals and representatives from political parties. As supported by Khanya (2000:30), this meeting endeavoured to collect information on the role players’ livelihood outcomes and aspirations; the vulnerability of rural people; existing and future institutional structures and processes; and livelihood strategies for sustainable rural livelihoods. During the quantitative data collection stage economic interaction between Bloemfontein and Welkom was determined. In order to determine this, the industrial areas of the region were investigated more closely. This investigation comprised fieldwork, during which researchers visited the industrial areas of Bloemfontein, Botshabelo, Brandfort, Theunissen and

Welkom and listed all the industries. Enterprises that could stimulate export were selected from these lists. Only enterprises that manufactured export goods, as established by the researchers during the preliminary fieldwork, were selected for further research. In Bloemfontein 119, Bochabelo 67, Welkom 71, Brandfort 6 and in Theunissen 6 enterprises were found. As a next phase a questionnaire was submitted and completed by the following number of respondents: Bloemfontein 73, Botshabelo 24, Brandfort 5, Theunissen 4 and Welkom 31. This was done based on the assumption that these industries would be able to expand the basic economy of the region, since this is preceded by an interaction between economies, which ultimately leading to economic growth. All the selected enterprises were approached by means of personal or telephonic interviews to complete a questionnaire. This information was processed in order to determine the economic interaction between the areas.

#### 4. THEORETICAL ASPECTS OF CORRIDORS AND AXIS

Since terminology can be interpreted differently, for the purpose of this paper the terms development corridor, transport corridor and transport axis have the following meanings:

##### 4.1 Development Corridor

A Development Corridor may be seen as a concept to elevate an area to a certain level of development. The area must have the potential to develop, on the condition that the entire area must take part in the process (Infrastructure Development Corridor, 2004). As development takes place within a corridor it implies that we are referring to a specific spatial area in this regard. The delimitation of such an area depends on the type of development planned. However, certain conditions apply, since the development of a corridor is aimed firstly at developing the region from the inside, and then making contact and developing further extensions with adjoining regions from there. A Development Corridor is therefore a multi-dimensional strategy that further strengthens and supports the chosen area's internal development networks (Infrastructure Development Corridor, 2004, Millenium Link, 2004). According to Friedmann (1966), a Development Corridor consists of a narrow zone along important connecting routes between different cores. Economic activities within such regions are less concentrated, but have the capacity to expand. The main points of such a corridor must be developed to such an extent that they can propel the development, but must not be situated too far apart (Please refer to Figure 2).

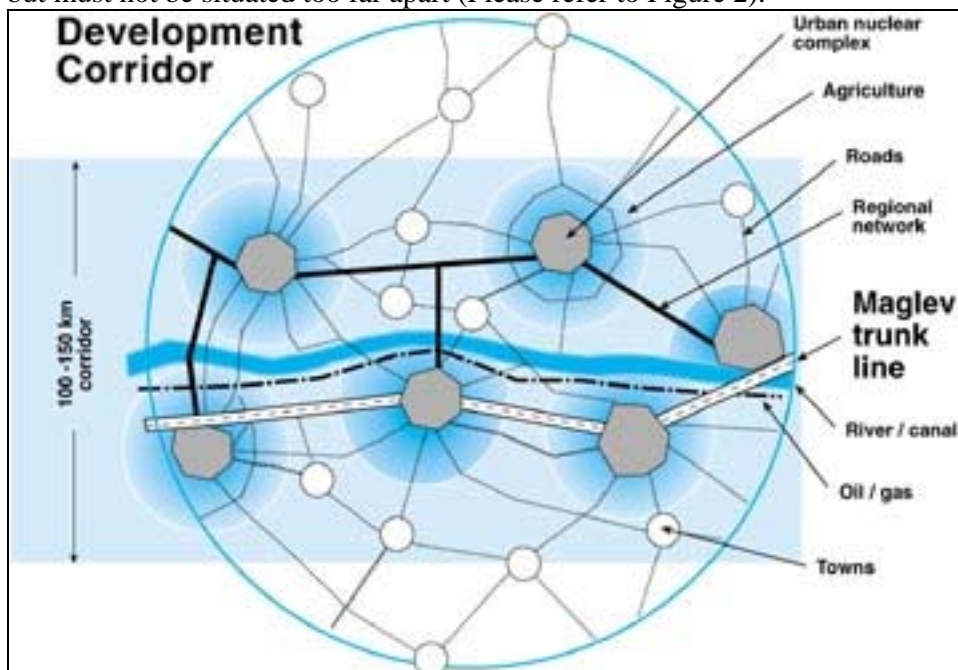


Figure 2: Schematic representation of a Development Corridor

(Source: Infrastructure Development Corridor, 2004).

#### **4.2 Development Axis**

According to Geyer (1988:120), a Development Axis must meet the following four requirements:

- two communication centres must be linked by means of a communication axis;
- the centres must be mutually dependent;
- the interaction must offer the potential for further development and
- the axis must grow economically and physically.

A Development Axis is therefore established if the interaction between two centres along a communication axis offers the potential for further economic development.

#### **4.3 Transport Corridor**

According to Smith (Zucula, 2004), a Transport Corridor is defined as a multinodal corridor that connects two points of economic activity with one another. It must be as reliable and cost-effective as possible. Hesse and Rodrigue (2006) sees Transport Corridors as a link between a location offering accessibility to a large system of circulation of freight, passengers and/or information and the interior. As land corridors (road and rail) emerge between major hub centres, they reflect the territorial structure of a region. For the purpose of this study, the Transport Corridor indicates an area where the transportation of goods serves as the economic driving force of an area (Stejn & Barnard, 1991:134). This interaction between two points leads to further economic development and growth.

### **5 THE AXIS OR CORRIDOR IN SOUTH AFRICAN PLANNING**

The National Physical Development Plan (RSA, 1975:17) of 1975 refers to various existing and future development axes. The idea was to link existing metropolitan areas with identified or future growth poles by means of development axes. Geyer (1986:163) found that some of these axes were not supported by secondary development centres or were stretching over too long distances to make development realistically viable. The greater the distances between centres, the stronger these secondary centres must be as a propelling force. In some cases these so-called axes were not axes at all but rather a finger development with no equilibrant pole at the other end.

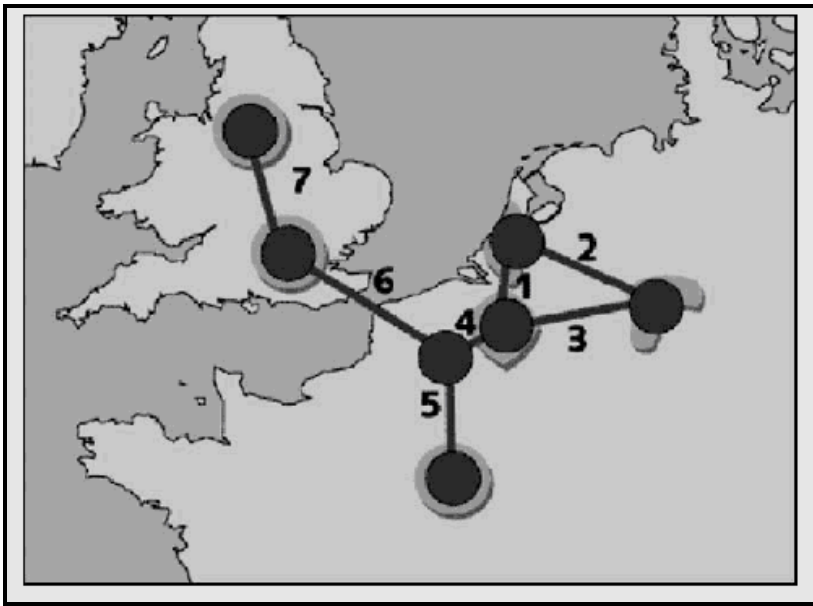
The development of a good road network which provides better interaction with the hinterland in many cases led to the decline of economic activities in small towns as the threshold “time” to bigger centres was changed. An understanding of economic forces is vital to any development planning as people and businesses will only locate in areas where it is economical viable.

### **6. CASE STUDIES**

Several case studies were examined to get the feel of corridor development on different continents as well as different economic environments e.g. developing and developed countries.

#### **6.1 Europe**

Corridor development is seen throughout Europe on a much bigger scale and is referred to as megacorridors. Studies are done on different European megacorridors by a study group namely the research CORRIDESIGN (De Vries & Priemus 2003:225-233) focusing specifically on spatial governance.



**Figure 3: Seven most important meacorridors in North West Europe**  
 (Source: Priemus & Zonneveld 2003 :171).

**1.Randstad-Flemish Diamond, 2.Randstad-Rhein-Ruhr, 3.Rhein-Ruhr-Flemish Diamond, 4.Flemish Diamond – Lille, 5.Lille-Paris, 6.Lille-London, 7.London-West Midlands**

The Randstad-Flemish Diamond Corridor links Belgium and the Netherlands and thus leads to cross-border rail infrastructure that interconnects the metropolitan agglomeration of Randstad and the Flemish Diamond of Belgium which leads to multi-level governance. (Romein, Trip & de Vries 2003:205-213). These corridors operate on transnational and bilateral levels, national level as well as regional and local levels.

### 6.2 England’s Midlands

The study of this corridor is also a CORRIDESIGN project that focused on the linkage between England’s West Midlands and London. Concepts of Myrdal associated with corridor development are looked into in an article published in the Journal of Transport Geography (Chapman et al.:179-191) namely spread, backwash and armature while studying this particular corridor development.

### 6.3 North America and Canada

Corridors based on different reasons for existence can be studied in the United States of America and Canada. *The Route 58 Corridor* is 680 miles long and was started in 1989 to enhance the economic development potential across the largely rural state of Virginia in the USA. In Canada the *Northwest Corridor* is one of Canada’s leading economic regions. It spans four provinces and consists of a well connected network of highways, railways, airports and a marine port. It provides important connections to producer as well as consumer markets throughout the world. (Northwest Corridor Development Corporation online 6/02/2007).

### 6.4 Asia

In an attempt to revitalize the economy of the Northeastern region of China, the government announced in 2005 the construction the Harbin,- Daqing -Qiqihar Industrial Corridor linking these cities. Each of these cities having its own strength, be it location, transport, manpower or specific industries. In the 300 km stretch, two smaller cities are incorporated giving way to a robust industrial route with strong technical talents and rich land resources. “Rejuvenating an old industrial base is a formidable task that requires upgrading existing industries, transforming from a planned to a market economy as well as adjusting the industrial structure. It cannot be accomplished without

exploring new areas of growth” (Li Zhanshu as quoted by in China Today December 2006:74). The Chinese government planned to focus on the private economy and industrial development.

The project is based on five principles: 1. Overall planning and phase-by-phase construction 2. Market rules govern spending of funds allocated for infrastructure construction 3. Interested enterprises wanting to operate any type of business are welcome as long as it fits into the government’s overall plans for the corridor. 4. The corridor acts as a perfect location for enterprises currently based in the city wishing to relocate to the outskirts. 5. The corridor must as a whole forge a reputation that would attract investment and encourage business.

## **6.5 Africa**

### **6.5.1 The Nacala Corridor.**

This corridor is based on the railway line connecting Zambia and Malawi to the port of Nacala in Mozambique. The corridor consists of three components namely the Nacala Port, the Nacala Railway and Malawi Railways (Nacala Development Corridor s.a.: online). The main objectives of this corridor are: The development of an adequate cost effective reliable efficient transport, communications and energy systems so that the corridor may be a competitive investment area; to foster economic growth; to create increased economic activity through the promotion of trade and to ensuring sustainable development of the corridor (Nacala Development Corridor s.a.: online).

### **6.5.2 Bas-Congo Corridor**

According to Engineering online (25/08/2005) a feasibility study was being done to determine the possibility to develop the Bas-Congo Corridor. It is likely that a trimodal corridor, making use of road, rail and waterborne transport will be developed as a huge potential in terms of mineral and energy possibilities exists. Political stability will be crucial for successful development.

In studying corridor development throughout the world, the existence of certain elements is recognised namely: Transportation systems are in place – usually more than one mode of transport; Economic viability exists; Focus is on governance while recognizing the problems of local, regional and national governance as political stability is crucial; Private initiatives for investment exists; urban growth is necessary and the corridors are sustainable.

## **7 GOVERNMENT INITIATIVES: SPATIAL DEVELOPMENT INITIATIVES (SDI’s) AND SOUTH AFRICAN CASE STUDIES**

The regional SDI’s are projects identified on the basis of their inherent unutilised economic potential. Their developmental objective is to create sustainable jobs in these areas by identifying and facilitating new investment. The mechanism by which this is achieved is focused, co-ordinated action at all levels of government and by all relevant line functions within the spatially defined area, in order to remove blockages to investment. The SDI’s are part of the GEAR macro-economic strategy, and therefore fit into a broader macro-level strategy of simultaneously expanding the economy, stabilising conditions for sustained growth and opening up economic opportunity and employment prospects for previously disadvantaged sectors of our society (Jourdan, 1998:717). The SDI programme consists of 11 local SDI’s . They are the following: Maputo Development Corridor; Lubombo SDI; Richards Bay SDI, including the Durban and Pietermaritzburg nodes; Wild Coast SDI; Fish River SDI; West Coast Investment Initiative; Platinum SDI; Phalaborwa SDI; and Coast 2 Coast Corridor.

The SDI’s of the South African Government, conceived in 1995 by the Cabinet is an attempt to improve investment in those areas where the greatest potential for growth exists (Jourdan, 1998:717). No mention is made of the Development Axis or Growth Centres as part of the planning methodology but looking into the physical development of these SDI’s they all conform to the

theory of development from one or between two centres. In one case the Maputo Development Corridor between Gauteng and Maputo is a typical axis development between two big centres but taking economics into consideration, as Maputo is the closest harbour to Gauteng and in the 1970s 40% of the export from Gauteng went through this port (Jourdan, 1998:720).

## **8 LESSONS FOR THE BLOEMFONTEIN-WELKOM CORRIDOR**

Although no specific reference to the maximum distance separating two centres on an axis was found in the theory, it was mentioned that the size or vitality, plus the mutual interdependence of the centres, would play an important role. Bloemfontein as the provincial capital is providing administrative services to Welkom but an interdependence based on economic grounds has to be proven.

The two small centres in between, namely Brandfort and Theunissen, is so small and so far apart that their contribution to make a 150-kilometre Development Corridor viable has to be proven. The problem with all these centres is that their economic contribution is not in relation to their population size. They are all relatively poor cities and towns with no industrial export base but are focused either on agriculture, raw materials or service functions. All these centres have to cope with a large unemployment rate and with low skills levels. No leading industry or propulsive firms exist in the study area other than the gold mines, but due to their specialization they do not generate growth for the wider region (Glasson, 1978:174-175).

The location of Welkom, about 140 kilometres from Klerksdorp and 250 kilometres from Johannesburg, which are both gold-mining centres, and with the latter also being part of the largest metropolitan area in South Africa, means that these places have more in common with Welkom than Bloemfontein, which is only an administrative centre. Proof of services and goods moving between Bloemfontein and Welkom will have to substantiate the existence and future development of a Development Corridor between them.

## **9 INVESTIGATION INTO INDUSTRIES**

The purpose of this investigation was to determine whether an interaction and a flow of goods is taking place between Bloemfontein and Welkom. The industries were classified into two groups, namely export-orientated industries and local service industries such as panel-beaters, building companies and garages. All industries in the export-oriented group were approached for information and requested to respond telephonically to a questionnaire. The assistance and knowledge of local experts were obtained to verify that leading export industries were included in the responding data. In Bloemfontein the response was good enough to be representative, while in Botshabelo and Welkom the response was not so good. However as a 100% survey was done this is the best possible result and 100% of the leading export industries are included. Therefore these results may be used as an indication of the present situation. The reasons for this poor participation especially in Botshabelo and Welkom include the following:

- the information requested was regarded as confidential;
- to busy and did not have the time to complete the questionnaires;
- enterprises had nothing to gain from the research and
- a large number of the contact persons, especially in Botshabelo, are not fluent in English or Afrikaans.

As indicated below, the best participation in this study was obtained from the enterprises in Bloemfontein, Brandfort and Theunissen (Table 1). As mentioned above participation in Welkom and Botshabelo were very poor. This tendency can be ascribed to the factors as mentioned in the limitations.

**Table 1 Enterprises subjected to questionnaires**

		BLOEMFONTEIN	BOTSHABELO	BRANDFORT	THEUNISSEN	WELKOM
Enterprises	Subjected to questionnaire	119	67	6	6	71
	Questionnaires completed (N)	73	24	5	4	31
	Questionnaire not completed	46	43	1	2	40

In the following table, it will be looked at the marketing of goods in Bloemfontein, the Free State and right across the country, in order to determine whether there is an interaction of goods distribution between Welkom and Bloemfontein. It is evident from the table below that enterprises situated in Bloemfontein are focused on the markets and marketing of goods in Bloemfontein itself, the Free State and right across the country, but not on Welkom. (Please refer to table 2). Another observation that was made is that most cities and towns only conduct business within their own areas, but that distribution also takes place from the large cities to other areas such as Gauteng.

**Table 2 Markets and marketing**

	Marketing				
	BLOEMFONTEIN	BOTSHABELO	BRANDFORT	THEUNISSEN	WELKOM
Bloemfontein	17	3	1	0	0
Free State	21	0	2	0	3
Right across the country	19	8	1	2	2

The distance between enterprises and markets fulfils an important function in determining over what distances goods are transported, thereby identifying markets (Please refer to Table 3). Most of the enterprises in the Region make use of a market within a radius of 0 to 25 km for selling and distributing their products and goods. Consequently, enterprises in the Region basically focus on their immediate environment for distribution. Markets situated more than 200 km away are generally used by large cities requiring a larger market. From the above it seems as if no marketing of goods is undertaken from Bloemfontein in Welkom, and *vice versa*.

**Table 3 Distances from enterprises to markets**

	Markets					No idea	Equal	(N)
	0 - 25 km	26 - 50 km	50 - 99 km	100 - 199 km	200 km +			
BLOEMFONTEIN	38	4	6	5	19	1		73
BOTSHABELO	7	8	2	1	6			24
BRANDFORT	2	1	1	0	0		1	5
THEUNISSEN	2	0	0	2	0			4
WELKOM	8	5	6	0	12			31

It is evident from the above-mentioned that the distribution of goods between Bloemfontein and Welkom does not take place sufficiently enough for the R30 to function as a corridor. Most of the enterprises only serve the markets in their immediate vicinity, and it seems that the cities focus more on other, larger cities for distribution. The central location of Bloemfontein can be regarded as the main reason for enterprises establishing themselves there, while the enterprises in Welkom are driven by the mining industry and historical events. Bloemfontein's main advantage for its enterprises is a central location, while Welkom's enterprises indicated their markets, virtually no competition and a stable labour force. Most enterprises in Bloemfontein indicated that they did not experience any disadvantages regarding the city, whereas Welkom's enterprises regarded the declining markets as their main disadvantage.

## 10 CONCLUSIONS AND RECOMMENDATIONS

It can be concluded that the economic connection between Bloemfontein and Welkom is not adequately developed to function as a Development Corridor or Axis. The area functions more effectively as a Transportation Corridor, with Bloemfontein and Welkom as the main nodes. The location of Brandfort and Theunissen on the Transportation Corridor offers further development opportunities. As a result of the decline in mining activities, the Region is deteriorating rapidly. Job opportunities are becoming increasingly scarce.

The area is well provided in terms of infrastructure, but attention needs to be paid to the present infrastructure to ensure its development. The economic growth of areas such as Welkom shows a decline, while Theunissen is experiencing a relative degree of growth due to the town's position as the capital town of Masilonyana. Job creation is one of the most important economic issues that must be addressed. This should receive attention at both local and national level. Both the public and the private sector must address this issue. Economic activities in the Region must also be diversified so that a dependence on one industry does not have a negative effect on the economy. The economic activities in particular must be developed and extended so that they are no longer so strongly mining-focused. Development at regional level in a relatively poor region with limited natural resources is dependent on political support. As such, it is necessary for the government to agree, both at a national and a local level, to the importance and priority of developing this area.

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