

THE POTENTIAL IMPACT ON PROPERTY AND SOCIO-ECONOMIC DEVELOPMENT RESULTING FROM ROAD TRANSPORT CORRIDORS IN AFRICA: A CASE STUDY

PROF DRIES (AC) HAUPTFLEISCH

Department of Quantity Surveying and Construction Management, University of the Free State
Bloemfontein, Republic of South Africa
ach@ecospan.co.za

DR HENDRIK (HJ) MARX

Department of Quantity Surveying and Construction Management, University of the Free State
Bloemfontein, Republic of South Africa
MarxHJ@ufs.ac.za

Abstract

Description of the paper

A development corridor is important, particularly regarding its impact on future property development and socio-economic growth. The objectives of this study include the following:

- *A theoretical overview on development corridors;*
- *A literature review on economic wealth creation within a broader region. The South African-Mozambique Development Corridor is used as a case study;*
- *An overview of the planned comprehensive extension of existing corridors and its impact;*
- *The influence that a corridor development could potentially have on property development.*

Application

An entire region must take part in the development process of corridors in pursuance of stated objectives. For a development corridor two primary development centres must be linked by means of an axis, preferably with other secondary development centres in between. There must be mutual dependency between the centres in order to achieve development objectives.

Results, observations and conclusions

Nodal points are important for a corridor in order to provide property development and employment opportunities that stimulate growth and spatial interaction within the corridor. Recommendations could be made regarding the requirements for sustainable development.

Keywords: Development corridor, nodal points, property development, socio-economic development, spatial development initiatives.

INTRODUCTION

In mid-2008 Trans African Concessions (Pty) Ltd (TRAC) requested a multi-disciplinary research team of the University of the Free State and the Council for Scientific and Industrial Research (CSIR), Built Environment Division to initiate a socio-economic impact study on the Maputo Development Corridor (MDC) along the N4 toll road. TRAC is, since 5 May 1997, the Concessionaire of the R3 Billion (\$1=R7.50: April 2010) project to build, finance, operate, maintain and expand the 590 km N4 toll road stretching from Pretoria in the Gauteng Province, in South Africa, through the Mpumalanga Province to Maputo in Mozambique (Figure 1 refers). It runs through some of the more industrialised and productive regions in Southern Africa, including mining and agricultural areas and large concentrations of manufacturing, processing, mining and smelting industries, which are located in the cities of Johannesburg and Pretoria on the western end (nodal points) of the corridor (Nathan

Associates Inc: 2008). The other nodal point is the city of Maputo, which also contains the harbour port of Maputo on the east coast of Africa.

The MDC is presented as a case study regarding the probable impact on property and social-economic development.

The vision of the MDC is to rehabilitate the core infrastructure, i.e. road, port and dredging, electricity and the border post within the corridor, through public private partnerships (PPPs), thereby re-establishing key linkages and opening up inherent under and unutilised economic development opportunities. Underlying the vision is the desire to see this initiative contributing to other key policy areas – notably regional economic integration, international competitiveness and a broadening of the ownership base in the economy of the corridor. In order to facilitate the implementation of the project in partnership with the private sector, protocols were signed between the Governments of South Africa and Mozambique (TRAC N4 Toll Road: online).

The Southern African Developing Community (SADC) is interested 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” (SABC News: Online 05/06/2007).

The objective of the National Physical Development Plan (RSA, 1975:17) 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 finger developments 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. The Spatial Development Initiatives (SDI’s) of the South African Government, conceived in 1995 by the Cabinet was an attempt to improve investment in those areas where the greatest potential for growth exists (Jourdan, 1998:717). The MDC is a typical axis development between two big centres, taking economics into consideration, as Maputo is the closest harbour to Gauteng. In the 1970s 40% of the export from Gauteng went through this port, but this faded away due to socio-political reasons. (Jourdan, 1998:720). However, strong growth has subsequently been experienced, following new political dispensations.

The analysis indicates that areas closer to the N4 corridor (axis) had higher growth than those further removed. This is the case for total output as well as for several sectors. Gross Value Added (GVA) per capita also indicated a similar situation – areas close to the road corridor had a higher growth rate than those further removed.

DELIMITATION OF THE STUDY

Figure 1 provides an indication of the physical extent as geographically defined at the start of the Maputo Corridor Project. The MDC is a major import/export route that connects the

North-East provinces of South Africa with the capital and main port of Mozambique. It serves Gauteng (industrial heartland of South Africa), Swaziland and South-West Mozambique. Reference is also made to the potential of other development corridors in Africa, more particularly Southern Africa. The MDC is used as case study in this paper.

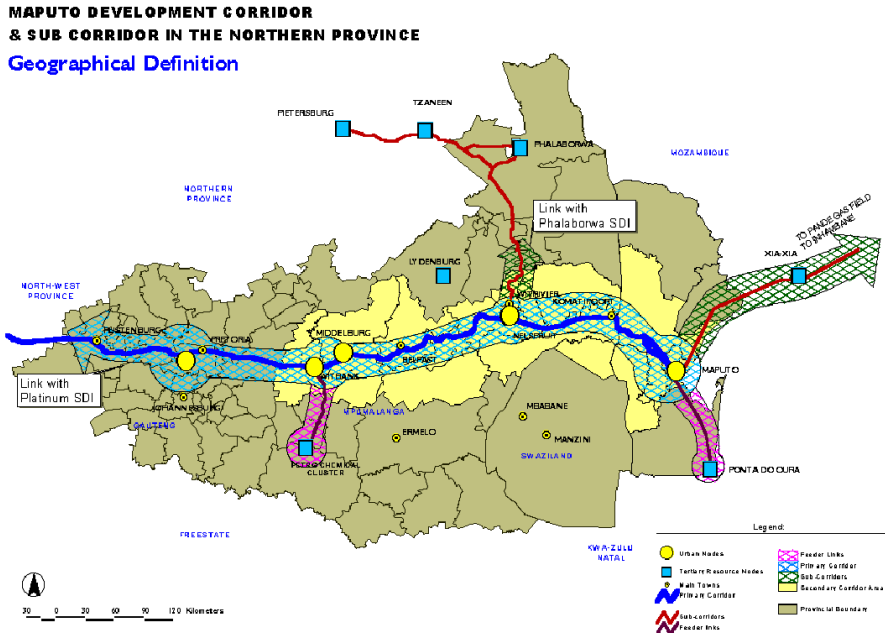


Figure 1: Geographical definition of the Maputo Development Corridor (MDC) (Source: Technical team to the ICC, 1996)

RESEARCH METHODOLOGY

This paper revisits concepts related to corridors and their theoretical foundation. Some sectors and components of socio economic development have been included as well as main activities that occurred since the inception of the MDC. Although some studies investigated the impact of the MDC it is clear that subsequent deductions are matters of interpretation. Some changes cannot clearly be related to the MDC. There are clear deficiencies and constraints (example: the coverage of Mozambique and Swaziland) currently. A literature comparison is made regarding the interim perceived unsuccessful outcomes of the corridor, the present positive aspects, areas that may be improved upon, and the viewpoints of a stakeholder forum. The focus of this study is mainly on the road component of the corridor, whilst acknowledging that it is not possible to divorce it completely from for instance the rail linkage.

PROPERTY DEVELOPMENT

Throughout this research it was found the “property development” as an outcome of corridor development is not isolated by researchers and other commentators. Although emphasis is often placed on socio-economic development, the measurable outcomes are likewise poorly quantified in specific terms. This also applies to other industries such as agriculture, mining, etc. There are thus very little available regarding industries specifically. What is however abundantly available is data regarding measurable outcomes in certain nodal/centre developments, such as increases in harbour activities, freight movements through border posts, etc. A quantified data survey was launched, with continuous pressure applied, to obtain specific quantified data regarding property development. The limited results are reported in

this paper. However, though there could be subscribed to the view held by some researchers that “a corridor is a corridor”, it is clear from the research reported in this paper that comprehensive “overall” impacts are abundantly visible. This is described elsewhere as “trickle down” effects, acting as catalyst for each other. It appears as if “tools” have not yet been developed to measure specific overall industry outcomes, other than those very directly measurable, as stated above.

THEORETICAL ASPECTS OF DEVELOPMENT CORRIDORS

Development corridors are difficult to define spatially as they are often based on the use of transport infrastructure. Such road or rail connections, though development corridors, cannot be restricted to the narrow band where such infrastructure is located. Its developmental linkages are much broader than the area adjacent to the transport infrastructure. It is clear, from literature that different approaches exist. For the purpose of this study it is important to consider the corridor as originally envisaged and conceptualised. Geyer (1988:123) sees the development corridor or axis as a dynamic phenomenon that evolves in different stages over time, which can be seen as a concept to elevate an area to a certain level of development. Four stages are identified and shown in Figure 2, namely:

- The potential axis (A) or the development finger with the potential for the establishment of a development centre at the other end (B);
- The axis in an infant stage with a well established communication axis between two primary centres (C);
- The mature stage with the corridor or axis having one or more secondary centres in between (D) and
- The axis in its old age or dormant stage where an over-concentration on the axis may lead to the development of agglomeration, diseconomies or polarization reversal (E).

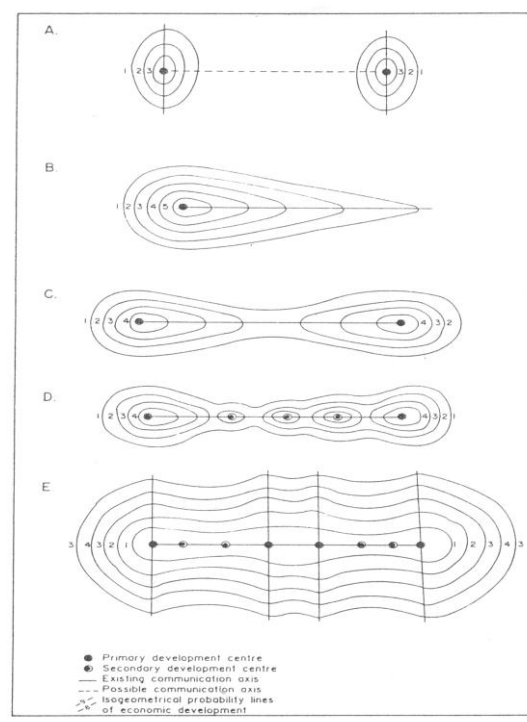


Figure 2: The evolution of the Development Corridor (Geyer, 1988:123)

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. The MDC could presently be rated as a Figure D corridor development.

GOVERNMENT INITIATIVES: SPATIAL DEVELOPMENT INITIATIVES

The regional Spatial Development Initiatives (SDIs) 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. SDIs are a key industrial policy committed to foster sustainable industrial development in areas where poverty and unemployment is at its highest. This objective is carried out through the SDI, which focuses high-level support in areas where social-economic conditions require concentrated government assistance and where inherent economic potential exists (South Africa: 2007, online).

Primarily all the major projects in the SDI are based on a partnership between the public and private sectors such as the MDC, and are set to provide opportunities for participation in sectors such as agriculture, mining, tourism, environment, forestry, infrastructure and ports. The MDC was expected to create more than 68 000 new jobs. A key component of this initiative is the move towards international competitiveness, regional co-operation, and a more diversified ownership base (South Africa Information/doing business/economic development: 2007, online).

Certain SDIs are also beyond the confines of the borders of a country where the economic imperatives of the strategy dictate that the SDI includes part of a neighboring country. The MDC between South Africa and Mozambique also affects Swaziland, Zimbabwe and Botswana.

In order to investigate the impacts resulting from a development corridor this report is thus further structured to provide a “mid-term” overview, followed by an African continental perspective, MDC nodal acknowledgement in future planning, and 2010 observations, supported by some empirical data. The research findings are provided under conclusions.

A “MID-TERM” OVERVIEW

Söderbaum and Taylor (2003) compiled, with the aid of seven co-writers, a book, *Regionalism and uneven development in Southern Africa*, providing an in depth analysis on the topic, concentrating primarily on the MDC. The perspective that they hold provides an important balance sheet, reflecting, albeit negatively, on the impact of the MDC. The following page referenced abstracts, in some instances re-worded and/or abbreviated for this paper, bear relevance:

P6: The MDC is based on four key objectives:

1. To rehabilitate the primary infrastructure network along the corridor, notably road, rail, port and dredging, and border posts, with the participation of the private sector in order to have minimum impact on the fiscus.
2. To maximise investment in both the inherent potential of the corridor area and in the added opportunities which infrastructure rehabilitation will create, including the provision of access to global capital and facilitation of regional economic integration.
3. To maximise social development, employment opportunities and increase the participation of historically disadvantaged communities; and
4. To ensure sustainability by developing policy, strategies and frameworks that ensures a holistic, participatory and environmentally sustainable approach to development.

Concluding remarks by Söderbaum and Taylor (2003) summarize the outcomes as follows:

P107-108: The uneven development impulses reinforced by the MDC and the ineffectiveness of its governance radically undermine the potentiality of the MDC as a “model” SDI for the rest of the Southern African region. We are sceptical that such a spatially focused framework engineered, in the main, by the private sector can stimulate genuine long-term and sustainable development. In a region characterised by a labour surplus (albeit largely unskilled), highly capital intensive and “big-bang” development projects do not seem particularly apposite.

P108: In effect, the prevailing paradigm, which the MDC is founded upon, contains a very strong emphasis on the notion that the state is inefficient and needs to be deregulated and made more competent.

P108: It is this reconfigured posture that confirms that the MDC has seen the state in both Mozambique and South Africa reduced to what can be seen as a transmission belt for capital, neglecting in the main questions pertaining to social and participatory development.

P109: Building on general insights from critical international political economy, many of the chapters in this volume draw attention to the reality that the political purpose behind the state’s involvement has not been to promote development and public goods or needs, but has rather been first and foremost to promote an enabling environment for the private sector.

P110: ..., it is thus clear that the governance structures and the Public Private Partnership (PPP) operating in the MDC have had a mainly negative effect on governance, democracy, ownership and participation.

P110: As a matter of fact, the political support provided by the “political champions” and the specially designed SDI methodology has not worked satisfactorily. The important thing here is that despite concerns expressed by the private sector to government to take the MDC initiative more seriously, the MDC has increasingly become characterised by a lack of political leadership in South Africa.

P112: For sure, the MDC is officially held to be a development corridor, but in practice it is an investment and “market guidance” initiative with the hope that it will create jobs and somehow lead to “development”. In fact, certain leading government officials behind the MDC admit that the MDC is not about development at all: it is to be understood as the Maputo *Investment* Corridor.

P113: In short, just because regional elites proclaim the MDC to be a “development corridor” does not make it so.

P114: The “market” cannot be left to its own devices if development and empowerment within the MDC (and indeed other SDIs) are to be realised.

P114: It is not good enough to predicate the micro-region simply around “growth” and “big-bang” investment, and then simply *hope* that “trickle-down”, job creation and empowerment will occur.

P115: It is thus very unclear whether the spatially focused approach, driven by private investment, will be able to trigger genuine “development” in the targeted areas. Indeed, the SDI strategy is a highly capital intensive development strategy that may not be suitable for regional economies whose main endowments are labour and natural raw resources.

The foregoing, overly negative perspective published in 2003, seven years after the launch of the MDC in 1996, fails to acknowledge or fundamentally evaluate the real effect of the “trickle down” impact. In fact, it also fails to recognize or provide guidance as to how the stated objectives 3 and 4 should be practically brought to fruition. Guidance is also not provided regarding how the desired social development and employment resulting from the MDC is measured, or measurable. The positive outcomes regarding key objectives 1 and 2 are evaluated, for thinly disguised reasons, by Söderbaum and Taylor (2003) as negative, probably because 3 and 4 are emphasized as failures.

AFRICAN CONTINENT

Jourdan (2008: 20) reports as follows, further reflected in Figure 3: “An African Development Corridor desk-top study was undertaken by the RSDIP¹ & Mintek (for NEPAD) in 2006 to investigate the potential and status of continent-wide development corridors, examined in a preliminary fashion the potential of DCs across Africa. It makes the case that Africa’s physical and social infrastructure needs are so large that they cannot be met in any reasonable timeframe without substantive contributions from the private sector.”

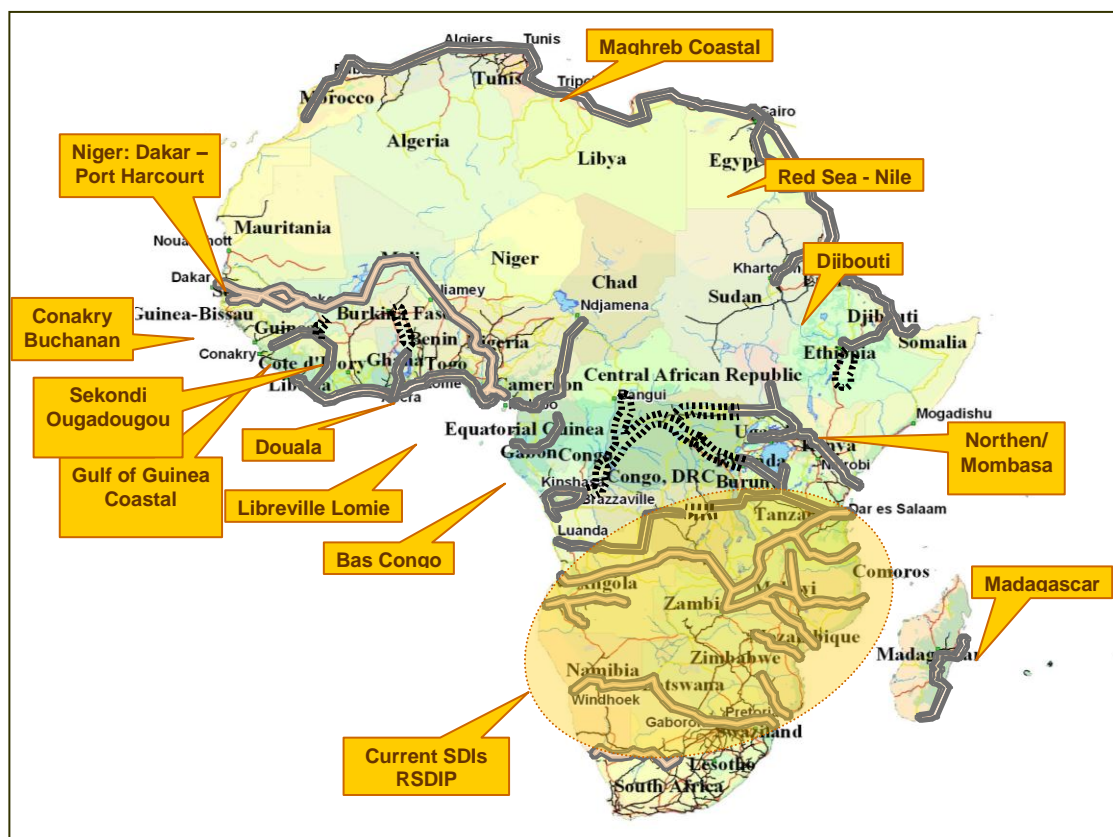


Figure 3: Potential Resource-based African Sustainable Development Corridors

¹ RSDIP: Regional SDI Programme of the SA Department of Trade & Industry

The Japan International Cooperation Agency (JICA) (2010:1-276) has prepared a comprehensive study titled: Preparatory Survey for Southern Africa Integrated Regional Transport Programme. This study was conducted to cover the region reportedly with the highest cross-border traffic in Africa, covering the 8 most southern countries. Significant growth has taken place in this region over the last decade, but was also negatively impacted on by the global financial crises of 2008. The study confirms a substantial growth in Direct Foreign Investment (DFI) in the region since 2005. However, to ensure sustained development, the report identifies corridors as a key requirement for growth. JICA (2010: ES-4) states: “The existing 18 corridors in the region connect local mineral and agricultural resources with global markets. The study proposed re-defining the role of regional economic and transport corridors according to growth scenarios (strategies), building on the growth belt concept, which encompasses the integration of resources, value creation, and global markets”. Constraints that are identified to achieve these objectives relate strongly to border crossing delays, often for many days, maintenance of infrastructure, poor port performance and taxation regimes. Solutions are offered to address these negative findings. Figure 4 indicates the existing 18 corridors, for which in each case comprehensive trade movement data is available. Some of the corridor positions are (probably) not geographically 100% correct, but the overall presentation is acceptable for the purpose of this paper. From a socio-economic perspective, comprehensive data is available for each of the countries regarding demographics, scale of economic activity, governance and the business environment. From this a corridor development priority programme has been created for Southern Africa. Social conditions were further analysed per country in order to quantify population growth, governance standards, economic activity, trade, investment and regional co-operation and integration.

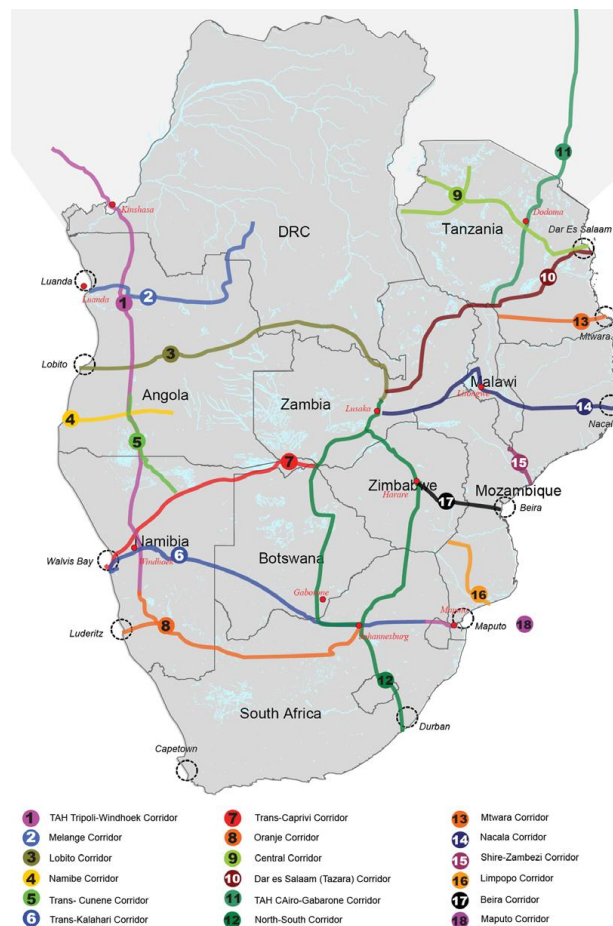


Figure 4: Southern Africa Transport Corridors and Major Ports (JICA, 2010: 2-22)

EXTENSION OF MDC: NODAL POINT ACKNOWLEDGEMENT

From The World Bank (Africa Region) Summary Report, the further extension of the MDC is anchored in a “growth poles strategy” that supports the position in this paper that development centres/nodal points/growth poles are key drivers of corridor development. Evidence indicates that “a road is a road” that connects poles. Development tends to take place mostly in the nodes/poles, with the axis benefitting socio-economic development, along the corridor in a catalytic fashion.

The World Bank Summary Report (2010: 4-21) reflects the above position, supporting the principle of a nodes/poles analysis when assessing corridor development. The following page referenced aspects of the report is indicative thereof. Noteworthy is the lack of specific “social upliftment” strategies, silently supporting the view that private economic development is the driver of development in general. “Social engineering” is not mooted in this report and it could therefore be assumed that “social development” is regarded as an automatic “trickle down” beneficiary of private sector-led economic growth initiatives.

P4: The objective of this study is to assist the Government of Mozambique in designing and implementing growth pole strategies in selected subregions, based on current and proposed programs and international experiences. The study focuses on subregions situated on the three main development corridors: Beira, Maputo, and Nacala. These subregions were chosen based on their concentration of private investments, opportunities for private sector-led growth, current development challenges, and ongoing interventions, as well as their potential to demonstrate the benefits of an integrated growth poles approach.

P4: The main goals of an integrated growth poles strategy for Mozambique are to promote private sector-led growth and employment while maximizing the development outcomes for sustainable and equitable growth, especially in underserved provinces. It consists of six pillars: (i) enhancing subnational economic competitiveness through business environment reforms; (ii) nurturing and developing local and indigenous enterprises by fostering linkages with large foreign investments; (iii) strengthening local institutional capacity; (iv) upgrading urban infrastructure; (v) strengthening economic governance; and (vi) improving management of the social and environmental impacts of large investments.

P4: In terms of national development objectives, the growth poles strategy supports the Government’s program for shared and equitable growth throughout the country. It addresses critical development challenges at the subnational level and seeks to strengthen the competitiveness of regions within the corridors. It also accelerates the outcomes of ongoing spatial development initiatives (SDIs) through targeted interventions. The proposed growth poles strategy in Mozambique will complement existing initiatives by the Government and its development partners, including the World Bank, at the national and local levels. One of its main objectives is to support local authorities in planning, coordinating, and finding synergies among the government, donor, and private sector interventions in the context of decentralization. Where possible, the growth poles strategy will build on lessons learned from local initiatives, and complement or scale up those that support an overall local development strategy.

P4-5: Over the past decade, economic growth has been driven primarily by a number of large investment projects in agriculture, infrastructure and mining, as well as by large inflows of overseas development assistance (ODA). Megaprojects have helped stimulate economic

growth but account for less than 2 percent of urban private sector employment. The challenge is therefore to enhance job creation and technology transfers associated with large productive investments. In 2007-2009, the total value of investment projects authorized by Mozambique’s Investment Promotion Agency (CPI) amounted to \$14.9 billion. If a significant proportion of these projects are realized and well managed, they would have the potential to transform the socioeconomic environment in Mozambique and create many thousands of new jobs.

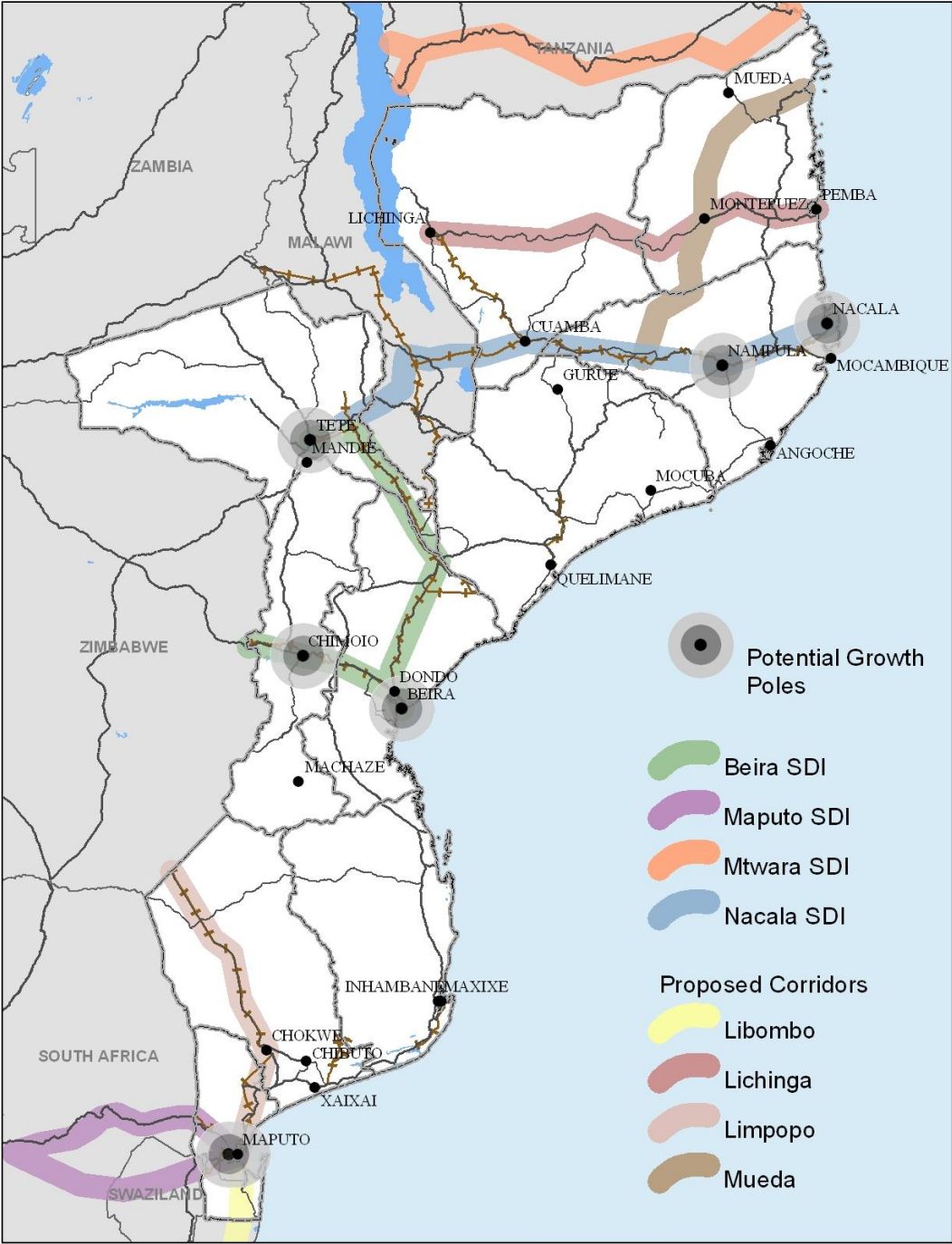


Figure 5: Development corridors and potential growth poles

The report emphasizes a variety of growth pole strategies, some specifically related to certain provinces. The following steps are however proposed in regional Mozambique context:

P21: Build awareness and stakeholder consensus on a growth poles approach. To chart a way forward, it is necessary to discuss the study’s preliminary findings and proposals with key stakeholders in the national and provincial governments, the private sector, and the development community. Key issues are to ensure that: (i) the growth poles strategy is integrated into the spatial planning work being undertaken by COCEP; and that (ii) there is consensus among the key stakeholders, including the donor community, on the identification of potential growth poles and the implementation of the strategy.

Provide detailed identification of potential growth poles. A more detailed assessment of the potential for growth pole development is needed.

Ensure Government ownership and leadership. Adoption of a growth poles strategy by the Government of Mozambique will require high-level political commitment and support, possibly at the level of the prime minister or presidency.

OBSERVATIONS 2010

An interview took place with the Chief Executive Officer, Brenda Horne (2010) of the Maputo Corridor Logistics Initiative (MCLI) to obtain a perspective regarding the ensuing years since 2003, thus observing the resultant outcomes up to 2010. The MCLI, a non-profit company was registered to create a body where all stakeholders may contribute to develop the MDC in their collective best interest. MCLI subscribes to the following mission: “To support the development of the Maputo Corridor into a sustainable, highly efficient transportation route, creating an increasingly favourable climate for investment and new opportunities for communities along the length and breadth of the Corridor”. Figure 6 indicates the MCLI membership structure.

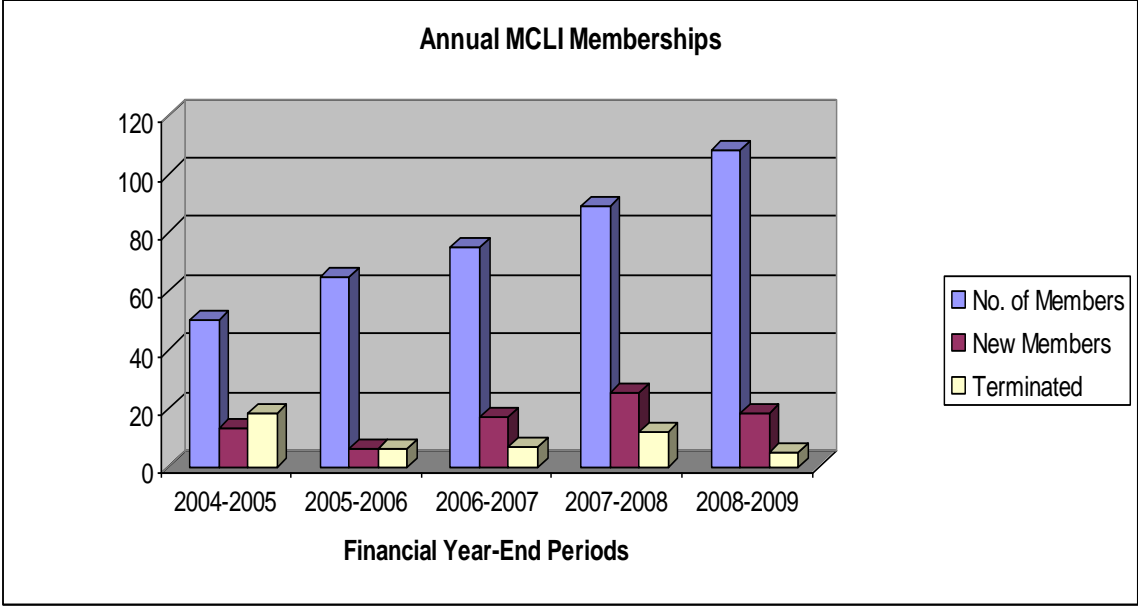


Figure 6: MCLI International Membership

In pursuance of the above the following provides an overview of the MDC as perceived by the MCLI presently, as was published as a MCLI Editorial in Export News, February 2009:

- The Port of Maputo is only 590 kms by road from Gauteng and 581 kms by rail and presents the shortest route to a port for South African exporters from the industrial heartland, Gauteng.
- To date, the private sector has committed an estimated figure of well beyond US\$5 billion worth of investments in southern Mozambique and Mpumalanga.
- Some US\$70m has been invested in the priority works programme at the Port of Maputo since April 2003, including dredging and marine operations, cargo handling, terminal and warehousing functions as well as port planning and development. Before the end of 2004, the port was working 24/7 in full compliance with the highest international security standards, the first African port that is International Ship and Port Facility Security compliant.
- Total tonnage handled through the port in 2008 was 7 591 000 tons; a 13.25% increase on the previous year. The port had been confident of achieving 8 000 000 tons prior to the dramatic slump in throughput in the last quarter of the year.
- Trans Africa Concessions, (TRAC) a founding member of MCLI, has spent US\$400m on the rehabilitation and upgrading of the road from Gauteng to Maputo, with at least another US\$400m to be spent on the road over the balance of the 30 year concession. The fact that this road has drastically reduced traveling time between the two countries has contributed significantly to the increase of traffic and consequently to trade. TRAC has indicated that traffic volumes have increased by between 5 and 7% per annum, with truck traffic increasing by 10% per annum on this road.
- By 2007 passenger transport between South Africa and Mozambique had increased by 80% since the lifting of visa requirements between the two countries in April 2005. This phenomenal increase has put pressure on the existing infrastructure at the Lebombo/Ressano Garcia border post, which is being addressed in the planning and implementation of a joint 24 hour one-stop border post scheduled for completion during early 2010.
- The World Bank's World Development report for 2007 listed Mozambique as the African country with the highest economic growth levels, with an average of 6% between 1995 and 2005. Real GDP growth was 7% and 6,5% in 2007 and 2008 respectively.

The MCLI has received one of three prestigious awards in 2009: The New Partnership for Africa's Development (NEPAD) Transport Infrastructure Projects of Excellence Awards. MCLI's Mozambican Chairman, Dr Antonio Matos, was delighted with the recognition given to MCLI's work, stating: "The Maputo Corridor has been a catalyst for economic growth in the region through the significant investment in infrastructure on the corridor and it is a great honour for MCLI. We are delighted that the efforts of this public-private sector organisation are being recognised by organisations such as NEPAD, and we believe that MCLI is a model for transport corridor development in Africa and we share this award with all MCLI's corridor partners." The Chief Executive Officer of MDC, Brenda Horne was also honoured for her contributions to develop the MDC, having been nominated as South African (Shoprite Checkers) Business Woman of the Year, 2010.

The impact of the MDC infrastructure improvements during the past twelve years could be summarized as follows:

- More than US\$5billion invested in the Maputo Development Corridor
- 24 Hour Joint One Stop Border post (construction) in progress.
- Increased road safety, at 5% pa traffic growth rate. Freight increases at 10% per annum.

- Harbour concessions are in place and successfully managed by the private sector with a further developments and investments underway and increases planned for infrastructure investment during the next 20 years.
- Increased traffic in the Port of Maputo and its terminals (3 million tons in 1996, 8.3 million tons in 2009 and a 20-year port master plan anticipating 48 million tons.
- Increased shipping services and direct calls to the Far East introduced in 2009 have resulted in the container terminal, realizing the highest ever container movement at the terminal of 103 000 TEU's in 2009.
- Increase in tourism & trade (South Africa/Mozambique).
- Further investment in Port & terminals > US\$750m.
- Continued investment and trade into Mozambique and substantial economic growth of Cities/Towns along the MDC.
- 2008 TRAC Gross Value Added desktop study declares that areas in close proximity of the transport corridor grew at higher rate than areas further removed.

REAL TIME VIEWS REGARDING PROPERTY DEVELOPMENT

A questionnaire was compiled to evaluate the views of MDC stakeholders in a **Likert 5-point scale** format, during 2010. The questions were designed to address issues dealt with in this paper. The resultant feedback was very disappointing as only six surveys were received by the time of publishing this document. However, what could be construed as indicative from this opinion survey are the following responses to selected questions (relevant to this paper), reflected in Table 1. The respondents were requested to rank their evaluations on the 1 to 5 scale: 1=little, 5=very much.

<i>Question 1:</i>	
General economic growth over the last 10 years in your region attributable to the MDC/N4-corridor:	3.67
<i>Question 5:</i>	
Will future upgrading of the MDC/N4-corridor stimulate new product development for industries?	4.00
<i>Question 6:</i>	
Does the MDC/N4-corridor contribute to wealth creation in general in your region?	3.83
<i>Question 7:</i>	
Does the MDC/N4-corridor contribute to job creation in your region?	3.67
<i>Question 10:</i>	
To what extent has the MDC/N4-corridor specifically/directly caused real estate development (properties, buildings) to take place in the following economic sectors (in order of perceived importance):	
1. Parastatals	2.00
2. Forestry	2.17
3. Agriculture	2.17
4. Mining	2.50

5. Education	2.67
6. Governmental	2.67
7. Manufacturing	2.83
8. Health care	3.00
9. Housing	3.17
10. Industrial	3.50
11. Commercial	3.67
12. Tourism	3.83
13. Maputo harbour	3.83

Question 12:

To what extent will the possible **further development of corridors** higher into Africa have on **real estate development in your region?**

3.83

Question 13:

To what extent will the possible **further development of corridors** higher into Africa have on **infrastructure development in your region?**

4.00

Table 1: Maputo Development Corridor Stakeholder Survey

From the data reflected in Table 1 it is clear that the overall effect of corridor development strongly support socio-economic and property development.

CONCLUSIONS

From the data regarding Africa as continent, and more specifically Southern Africa, it is concluded that the success of corridors as transport routes, and importantly, creators of general socio-economic development, is undisputed. It could in fact be stated that without the successful development, maintenance, border crossing improvement and optimal functioning of ports, socio-economic development and regional trade growth and integration will be seriously compromised for the entire region, and indeed Africa as continent. The MDC results confirm the above.

A noteworthy shortcoming in literature in general is the lack of quantification of benefits per capita. Data tends to provide typical collective perspectives. Though the authors have attempted to collect quantified data per questionnaire, in the mode of an opinion survey, the response to that was marginal.

It is difficult to specifically adjudicate positive developments that emanate from the MDC into detailed socio-economic segments. It is, except for very pronounced projects, also difficult to ascribe property development to the MDC on a project basis, as most projects in the MDC axes are dictated by the general growth resulting from the MDC. Local municipalities (especially those on the N4 corridor) see the MDC as an important component in their planning and marketing. The positive effects of the corridor are clearly there, and in many instances measurable, but very difficult to quantify according to specific growth in specific sectors. It is rather in the style of a mass movement, than individual events. Data could not be found or generated to determine the exact contribution to, for instance, property development. Collectively the data supporting growth resulting from the MDC is undisputed, physical

development is there to observe, particularly pronounced around nodes on the axes, and at terminal nodes. The results from this research outline the positive outcomes emanating from corridor developments. It is clear that regional socio-economic development, particularly in Africa, will benefit extensively from corridor developments. It is difficult to foresee how such developments can take place in a sustainable fashion without it. Southern Africa already displays excellent results in this regard. It is also concluded that the “trickle down” effect of development corridors calls for further research, with particular focus on quantification of the effect thereof on the different economic sectors.

It is noteworthy that The World Bank is in line with the “nodal point” perspectives supported by this paper. It also appears as if they subscribe fully to private sector-led economic development, with employment creation regarded as an automatic beneficiary, rather than the prime focus.

REFERENCES

- Campbell, M., Maritz, J., Nhemachena, C. and Hauptfleisch, D. August 2008. Literature review conducted to establish impact of Maputo Development Corridor on socio-economic development within corridor. Prepared for: Trans-African Concessions. Unpublished research. *The World Bank, African Region*. 2010. Prospects for growth poles in Mozambique: Summary Report.
- Geyer, H.S. 1988. *The terminology, definition and classification of development axis*. *SA Geographer*, Vol. 16 (1/2), pp. 113-129.
- Geyer, H.S. 1986. *The development axis in Physical Planning*. Unpublished PhD thesis. (Potchefstroom: Potchefstroom University, Department of Urban and Regional Planning).
- Hauptfleisch, AC., Campbell, MM. and Marx, HJ. August 2010. *Regional Property Development and Socio-Economic impacts resulting from a development corridor*. RICS Research Conference, Paris.
- Horne, B. 2010. Personal interview.
- Infrastructure Development Corridor. 2004. [Online]. Available from: <<http://www.schillerinstitute.org/economy/maps2.html>> Retrieved: 17 October 2004.
- Jourdan, P. 1998. Spatial Development Initiatives (SDIs). *Development Southern Africa*, Vol. 15 No. 5 Summer 1998, pp. 717-725.
- Maputo Corridor Logistics Initiative. 2009-2010. Information accessed from numerous documents created by MCLI.
- Nathan Associates Inc. 2008. *Maputo Corridor Summary Report*, a Transport Logistics Diagnostic Tool Study. United States Agency for International Development (USAID).
- Perkins, D. 2009. Official of the Regional Spatial Development Initiative Programme Unit of the Development Bank of Southern Africa (DBSA). Personal communication on an update of the South African SDI'S. 16 February.
- Republic of South Africa (RSA). 1975. *Nasionale Fisiese Ontwikkelingsplan* (Translated as: National Physical Development Plan-NPDP). (Government Printer: Pretoria).
- (SABC) South African Broadcasting Corporation. 2007. Available from: www.sabcnews.com. Retrieved: 05/06/2007.
- Söderbaum, F. & Taylor, I. 2003. *Regionalism and uneven development in Southern Africa. The case of the Maputo Development Corridor*.
- South Africa Information/doing business/economic development. 2007. South Africa Information/doing business/economic development. [Online] Available from: <<http://www.southafrica.info>> Retrieved on 1 February 2007.