Development Corridors and Spatial Development Initiatives in Africa

At the regional level the SDI model encourages integrated development within a given space defined by its economic potential rather than by political boundaries.

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1. Introduction

In early 2008, the African Union's (AU) Ministers responsible for Trade, Mining and Industry began consideration of an industrialization strategy for Africa and eventually adopted a *Plan of Action for Acceleration of Industrialization* (Jourdan: 2008). In doing so, they tapped into a rising tide of interest among African regional organizations, donors and other development professionals in the concept of Development Corridors (DCs) and Spatial Development Initiatives (or SDIs). The plan was informed by a desk-top study undertaken in 2006 for the Secretariat of the New Partnership for Africa's Development (NEPAD), by South Africa's RSDIP[1] and Mintek[2]. This earlier study investigated the potential and status of continent-wide development corridors, and examined in a preliminary fashion the potential of twelve new SDIs across Africa (Fig. 1) – supplementary to the ones already existing in southern Africa. It thus formed the basis for the AU's subsequent resource-based African industrialization and development strategy (*Plan of Action* - known as RAIDS). RAIDS is thus the acronym for this latter, Africa-wide SDI strategy which has since become central to the 'African Mining Vision' and AU industrialization strategy.

At the 4th Annual Meeting of the Infrastructure Consortium for Africa (ICA), held in Tokyo in March 2008, representatives of several development agencies endorsed the SDI concept in principle, following the lead of the representatives of the AU, NEPAD, and several of the Regional Economic Communities (RECs). NEPAD made public its plans to create an SDI Unit to promote and coordinate SDI-related infrastructure projects. Notably, the UN's Economic Commission for Africa (ECA) has likewise endorsed the strategy.

This paper reviews the case for DCs and SDIs as an emerging mainstream development strategy for Africa, by explaining the concept, sketching its beginnings in South Africa, examining the successes and failures of the first regional SDI – the Maputo Development Corridor – and summarizing its strengths and weaknesses. In doing so it addresses the following issues; is an SDI strategy a sensible and practical way to accelerate and leverage in private sector investments, enhance infrastructure provision, boost productive capacity, and facilitate economic growth and development? Who are the stakeholders whose participation is critical for the successful implementation of such a strategy, and what must they do to make a strategy like this work? Finally, the paper flags some of the concerns coming out of the global financial crisis and the recent drop in commodity prices but makes no attempt to try to answer these.

Figure 1: Proposed Resource-based African Sustainable Development Corridors:

Source: Mintek 2007.

2. DCs and SDI Concepts Explained

In most of the strategy documents cited above, development corridors are described as transport (or trade) corridors with under-utilized economic potential in their environs, the development of which would be explored through spatial planning and development projects (SDIs). They are therefore seen as a means of configuring, prioritizing and promoting inter-related infrastructure and large-scale economic sectoral investments in defined geographic areas so as to promote trade and investment led economic growth; optimize the use of infrastructure; encourage value-added processing; and enhance the competitiveness of African economies. Several principles, identified below, underpin the approach:

- *There must be real economic potential.* An SDI must be able to demonstrate true economic potential through either under-utilized natural resources or some other such financially viable and quantifiable qualities; for example a well positioned deep-water port close to growing or potentially dynamic markets.
- *As far as possible, private sector resources should be mobilized.* If a commercial return is possible, then the private sector should be brought in – whether in the form of public-private partnerships (PPPs), or exclusively for private sector investments;
- *Apply scarce public sector resources where they will have the most impact.* This principle refers to the application of both public financial and human resources (i.e., the time and energy of government officials). Through an SDI, limited public resources should be focused in areas where they are likely to have the most advantage, rather than being spread so thinly that they have limited or no effect at all.
- *The benefits of economic growth should be shared with those previously excluded.* This principle talks to SME involvement, and is viewed as critical, especially for job creation opportunities. It is also essential to ensure that local communities benefit from the opportunities created.

At the regional level the SDI model encourages integrated development within a given space defined by its economic potential rather than by political boundaries.

The chief elements of the strategy include: (i) crowding in and coordination of both public and private sector investments in the SDI; (ii) ensuring political support, commitment and buy-in from the highest levels of government in order to facilitate fast and focused planning[3]; and (iii) the use of well planned and publicized opportunities (such as road shows and investor conferences) to market opportunities in the SDIs. This however requires that project opportunities are well identified and packaged and are bankable for presentation to potential investors.

Additional elements recognized in the RAIDS strategy (Fig. 2) include the:

- realization of Africa's resource comparative advantage by overcoming its severe infrastructure constraints through the establishment of a network of cross-continental development corridors;
- 'Densification' of the corridors through the establishment of ancillary and feeder infrastructure to enlarge the corridor's catchments area and beneficiaries;
- 'Deepening' of resource industries via resource linkages in industrial clusters (up-, side-, & down-stream industries);
- Re-investment of resource rents into HRD and R&D for technology development to capitalize on linkages opportunities, for the development of resource industrial clusters and, ultimately, a competitive advantage, independent of resource endowments.

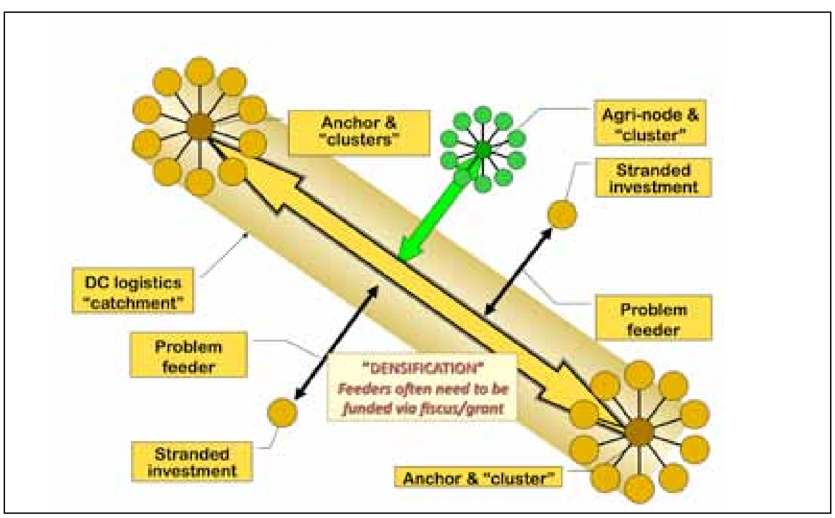
3. SDIs in South and southern Africa

SDIs were initially conceptualized in the early '90s to address South Africa's (SA) transition from an inward-looking import-substitution economy during the apartheid years. The idea was to focus export-oriented industrial development in areas close to or along the coast, to maximize on transport efficiencies and position the country to compete in global markets. In southern Africa the Maputo Development Corridor (MDC) was the first SDI to be implemented at the regional level. It involved a partnership between Mozambique and South Africa and at the time represented an unprecedented level of economic co-operation between the two countries. First conceptualized as a transport corridor by the transport departments of the two governments, the intervention of South Africa's Department of Trade and Industry (DTI) turned it into the first of the regional SDI initiatives. Overall it has been viewed as a success. MDC has provided a demonstration effect for other corridors and SDIs in Africa. The corridor links South Africa's most industrialized, but effectively landlocked northern and eastern regions (Gauteng and Mpumalanga provinces) to the Mozambican port of Maputo, and centers on a system of road, rail, border posts, port and terminal facilities. It has created a host of industrial and commercial opportunities along the 590km route from Johannesburg to Maputo, which is now populated with steel mills, petrochemical plants, quarries, mines and smelters, sugar cane and forestry plantations, and manufacturing facilities. The N4 Maputo Toll Road, developed and operated via a 30-year concession contract, has become one of the show-piece PPPs in southern Africa (Thomas: 2002). Additionally the SDIs in SA are sectorally diverse, with some focusing primarily on industrial development, others on agriculture, forestry or tourism, and some on a combination of sectors (Thomas: 2002). The program has been driven mainly at provincial government level with the support of DTI, the Industrial Development Corporation (IDC) and the Development Bank of Southern Africa (DBSA).

There are however valid critical aspects to consider. The rail services to Maputo Port failed to materialize due to problems with South Africa's state run railway, Spoornet, coming on board the strategy in 1996. The rail link from the border to the Maputo port badly needs rehabilitation and upgrading. The lack of adequate rail facilities on the Mozambican side of the corridor has also limited growth in the movement of coal, sugar, and other commodities, as well as passengers. All of these problems have contributed to the slow growth in the use of the Maputo port by South African importers and exporters, who prefer to use Durban's deep-water port despite it being further away. It has taken years to negotiate an agreement to keep the corridor's main border post open 24 hours a day. The initially celebrated one-stop customs and immigration facility has been criticized by frustrated travelers for delays and alleged corruption. The corridor also failed to generate densification activities on the Mozambican side, and required additional extraordinary efforts through the IFC to stimulate SMEs in the locality of Matola in Mozambique. Also from the Mozambican perspective the failure to establish an appropriate legal and institutional framework before the project began was viewed by some as a weakness of the project. And the speed with which the South Africans moved on the projects meant that their counterparts in Mozambique did not have the capacity to assess the implications of specific projects, with an additional absence of proper or effective engagement with the affected local communities. The N4 toll road provides a case in point as local residents in the Matola area complained they had not been consulted by their government (Bek and Taylor: 2001:6).

On the South African side, the hype generated around the corridor in its early days produced unrealistic expectations for the communities involved which were not fulfilled in terms of anticipated investments in certain areas of the corridor, and later led to negative perceptions of the communities and disappointment of prospective investors because projects were not considered ready or bankable. Negative environmental impacts and governance issues have also arisen in some places all of which provide les-

Figure 2: Idealized DC Configuration



Source: Mintek 2007.

sons for the wider strategy at the continental level (Kepe: 2001).

But despite these problems, the corridor had by 2002 generated a number of notable successes (Figure 3). It facilitated over US$5 billion in private sector investments into regional infrastructure development, industrial development and natural resources exploitation and beneficiation. Key infrastructure investments included the following (Thomas: 2002):

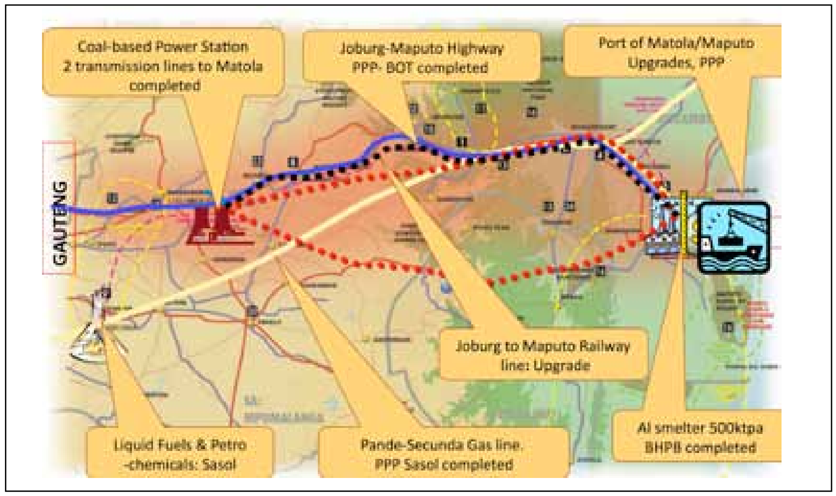
- The above-mentioned N4 Maputo Toll Road – a 30 year concession awarded in 1997 to the Trans African Concessions consortium (Trac), and estimated at ZAR1.5 billion at the time;
- The management agreement with Liverpool's Merseyside Docks and Harbor Company to upgrade and operate the Maputo Port for an estimated $65 million initial investment;
- The construction of two high voltage electricity lines from Duvha (near Johannesburg) to Maputo through a South Africa-Mozambique electricity utilities Joint Venture (Motraco);
- The development of the Pande/Temane gas field in Mozambique and the construction of a pipeline to South Africa ($1.4bn) by SASOL (South Africa) and ENH (Mozambique).

Other investments include:

- The anchor investment into the Mozal Aluminum Smelter at Maputo by SA's Billiton (now BHP Billiton) in a joint venture with SA's IDC (about $1.5bn for phase I and a further $1bn in phase II). The third phase of this project is now under consideration;
- The Beluluane Industrial Park, a 600 hectare industrial free zone development adjacent to the Mozal plant, is attracting a mix of foreign, regional and local investors into heavy industry, manufacturing and hi-tech businesses;
- A $2bn iron & steel complex in Matola, based on SA ore and Mozambican gas, is currently being assessed.

The visible success of the MDC initiated similar corridors and SDIs in the rest of southern Africa as decision makers realized that transport efficiency for imports and exports was not the only value of such corridors. The MDC showed them that SDIs offered ways to enhance local and regional economic opportunities. For the purpose of linking transport more closely to general economic development, the SADC[4] countries therefore initiated the so-called regional "Spatial Development Initiatives" program. COMESA[5] soon followed suit, fully embracing the strategy. As noted earlier and illustrated in Figure 1, the AU has now accepted the strategy for the rest of Africa through the RAIDS initiative.

Figure 3: Maputo Development Corridor



Source: Mintek 2006.

4. Some caveats about SDIs going forward

While the SDI strategy makes logical sense from several stand-points, concerns have nevertheless arisen which need to be tackled if it is to be acknowledged as a mainstream development strategy. The most significant is that, aside from the MDC, which it is argued is a one-of-a-kind project resulting from the unprecedented collaboration of two extraordinary heads of state, few other cross-border SDIs appear to have made demonstrable progress in Africa.[6] SDIs are supposed to kick-start broad-based economic growth, and their preparation has generally been supported by relatively detailed assessments of the economic potential and growth opportunities in a particular region. But the actual implementation has often been strongly transaction-driven and not sufficiently focused on developing the links between infrastructure planning and operation on the one hand, and spatial development on the other. This certainly seems to be the case in the most recent examples found in West Africa (e.g., Guinea-Conakry Buchanan SDIs). These criticisms of past and present activities around the SDIs are fairly justified. Often the anchor investments will have occurred without attempts first being made to develop the necessary local linkages.

The root of the problem can be due to a factor of several deficiencies, one or more of which might impact negatively on the SDI concerned. These include but are not limited to: (i) political instability of the region; (ii) poor political buy-in; (iii) lack of capacity of the officials in participating countries to effectively develop and manage the process; (iv) weak investment climate and poor regulatory environment to begin with; (v) the limitations of a weak (or absent) domestic private sector, incapable of seizing upon opportunities created by foreign investors and participating in investment opportunities where these occur, for a variety of reasons including lack of capital; (vi) premature marketing of a corridor for investment when projects are not even ready for banking, let alone scoped and analyzed; and (vii) the interests of donors engaged in these corridors may be too specific or narrowly focused, such as for example where they are concerned only with trade facilitation (i.e. supporting improvements to road transport and customs and border facilities) but not in productivity enhancement and trade development or in the development of secondary feeder roads to facilitate densification.

With the possible exception of the MDC, SDIs in Africa have therefore not been able to translate transport infrastructure development into broad-based growth that contributes to poverty reduction and employment creation. These are weaknesses that need to be addressed going forward. They do not however negate the appropriateness of the strategy.

A further concern raised by skeptics is in respect of the assumption that SDIs can facilitate PPPs in infrastructure. The central issues seem to be: (i) are there clear potential advantages in adopting a programmatic and spatial approach when taking decisions regarding infrastructure investment, particularly when such investments are expected to come via PPPs - notoriously difficult to do in Africa under any circumstances? (ii) Can these advantages be identified and clearly communicated to key decision makers? (iii) Should practitioners and policy makers involved in the planning and prioritization of infrastructure investments consider SDI-related optimal growth linkages to maximize the benefits of infrastructure investments, or should projects be done on a case by case basis, with simpler rules for prioritization and more involvement by the market place in making key decisions about which projects should go forward?

These are types of questions that need to be taken into consideration for future DC developments. However the MDC's multi-party infrastructure planning demonstrates that such projects can be feasibly executed.

5. What needs to be done to facilitate the success of the African SDIs under the AU's RAIDS Strategy?

As a private sector led growth strategy adopted at the continental level, the RAIDS approach proposes to accelerate African industrialization via the use of SDIs. It recognizes that the provision of efficient and reliable infrastructure services (in transport, energy, ICT, water and sanitation) via both public and private means is a fundamental aspect of this strategy, and seeks to harness Africa's natural resource wealth (i.e., its comparative advantage) within the context of the recent high commodities prices, to stimulate this growth and pay for much needed infrastructure. What makes this strategy different from Africa's past system of exploitation of its mineral wealth and how would Africans avoid the pitfalls of the past? The following provides a cursory list of the types of actions deemed necessary and who should take responsibility for or carry out the same.

The critical element determining whether mineral exploitation is a 'blessing' or a 'curse' is the level of governance in a country, principally the existence of "sufficiently good institutions" (Collier & Goderis, 2007). Thus efforts to strengthen governance by developing and capacitating appropriate institutions at both the regional[7] and national levels[8], to establish the necessary policies and strategies to neutralize or ameliorate the resource 'curse', and turn these into a 'blessing' through targeted and transparent deployment of the resource rents and opportunities, and to develop sectoral linkages into the domestic economy, will be key (Jourdan: 2008).[9] The MDBs and donors working in concert with African governments, the AU, RECs and international governance institutions skilled in such activities will need to support these initiatives. Local and/or regional DFIs can also be co-opted to support and sustain the same. It is noted however that Africans are already taking on board many of these issues and in countries such as Liberia, Ghana and Uganda, for instance, efforts are being made to adopt transparent rules and tax regimes allowing for better governance of minerals exploitation and development. But this is not widespread and certainly additional work will be necessary going forward.

Dimensioning and validation of the SDIs to confirm their economic potential will be a priority. This will need to be carried out with the assistance of the MDBs, engineering firms and private sector investors together with the participating governments and RECs. All efforts must be made to resist political meddling in the identification and prioritization of key DCs. Proceeding with all 12 corridors identified in the AU RAIDS strategy at once (together with those in SADC) will also not be feasible. The viability of the methodology and effectiveness of the partnerships put together under this strategy will need to be tested. Thus a select number of pilot SDIs must be identified as a first collaborative effort. This will require identification and establishment of appropriate DC management institutions, who can then also take responsibility for investment promotion and marketing activities. Establishment of such corridor management institutions are the joint responsibility of the participating governments (national, provincial and/or local) and the private sector, as well as requiring the support of donors, the MDBs and local and/or regional DFIs. It will also require close consultation with affected communities.

Work would need to commence on the scoping and packaging of "anchor" economic & infrastructure projects in the DCs, not only to facilitate marketing but also to optimize linkages (densification) into the local, national and regional economies (Jourdan: 2008). Likewise work on the investment climate and regulatory regimes will be necessary. The linkages will need 'densifying' of the trunk infrastructure via auxiliary infrastructure to maximize impact. Project development should be done by technical experts in the countries concerned, via feasibility studies and cost-benefit analyses. Where project developers are not available, assistance via the MDBs and financed through donor resources will be key. Several project preparation facilities exist to do this type of work[10], but individually and collectively they do not control adequate resources to meet the kinds of demands that these DCs hope to generate. The preparation of such projects into bankable propositions will further require the expertise of skilled transaction advisors. Apart from countries such as South Africa and Nigeria, most African countries lack access to such skilled professionals. They can be provided via the MDBs, donors and RDFIs, but there is a clear need to develop local expertise within Africa to sustain adequate deal flow. Local DFIs may provide an avenue for addressing this skills shortage, and within SADC, this is already beginning to happen via its DFI Network.

The idea is that by densifying transport, power and water along the length of the corridor, agricultural SMEs will be stimulated. However, the development of these SMEs will require more than assuring access to infrastructure; business climate constraints will also need to be addressed, including issues such as land ownership (for collateral), access to finance, skills development (both technical and business management) and market access, to name a few. The development of an SME enabling environment goes beyond the responsibility of a DC project management team, requiring the establishment of reliable resources that bring together both local and international expertise usually found in NGOs and other agencies. The Hewlett Foundation and its partners have established the "African Development Corridors Platform" (ADCP) to take on such a role, and bring together like-minded "International Development Partners" comprised of philanthropic organizations, NGOs and aid agencies whose task it will be to engage with local government and community-level entities in the DC process, primarily to support and facilitate maximum socio-economic impact via coordinated strategies & initiatives in the densification and deepening of SDIs. The ADCP could also facilitate discourse at the local level between all levels of government and the communities and other stakeholders, including the local private sector on the costs and benefits of these SDIs (Jourdan: 2008).

This provides only a sketch of the types of activities that will be necessary to ensure the success of the DCs, and is by no means exhaustive.

6. Conclusion

The African SDI approach is compelling for many donors and regional African organizations, largely because it represents an understandable and reasonably objective way to prioritize regional infrastructure projects, stimulate investments into productive capacity and achieve economic densification. Its value is found in its ability to:

- address the need for effective investment prioritization;
- provide linkages to and synchronize private sector economic investment project opportunities with key infrastructure projects;
- promote wider development potential (through densification strategies and clustering) catalyzed by infrastructure provision and anchor investments; and
- Provide a spatial focus to optimize regional economic development and integration.

However, it will require a concerted amount of effort and cooperation amongst a diverse group of actors and partners in order for it to succeed. How quickly the strategy can be implemented depends on a host of concerns which this paper has tried to isolate, and which will require considerable attention.

What has not been properly factored in and only the next few years will tell, is the extent to which RAIDS may be affected by recent developments in the context of the global financial crisis and its impact on commodities prices. Given that the RAIDS concept is 'anchored' in natural resources (and specifically minerals) exploitation and beneficiation and assumes continued high demand for African commodities, the question arises whether the financial crisis and fall in commodities prices could significantly impact upon this strategy? It is highly likely that in the current climate Africa's development partners will not be able to match – let alone exceed – their past performance in ODA. The World Bank has estimated that the negative impact on global financial flows, especially in respect of project finance, will mean less PPI activity in Africa.[11] Thus whether the RAIDS strategy will be able to proceed over the next three years is anyone's guess.

However, the World Bank projects that commodity prices will remain above the 2005 price levels. China is Africa's main client for its natural resources and the hope is that its continued demand will sustain prices during this difficult period. But a recent report argues that China's demand for imports is falling and that its ability to export is being affected by contractions in OECD markets.[12] And while the US$ 584 billion stimulus package adopted by China to counteract slow growth in its economy could save the day, this is by no means certain. Therefore the financial crisis and decline in commodities prices may have a delaying effect on whether Africans can even begin to consider implementing this strategy in view of the absence of investment capital and increased lack of appetite for African investment opportunities, even from China.

The hiatus caused by the financial crisis can present an opportunity for African governments to focus on actions to improve investment conditions and strategize on how best to attract investors back to African investment opportunities, especially in commodities, once this risk-averse period passes. It also provides time for exploratory work to be carried out to test the value of this SDI approach and to verify the preliminary findings and prognosis of the RAIDS Plan for Africa.

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Endnotes

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

2 *Mintek is a state-owned corporation and world leader in research & development and of minerals processing and metallurgical engineering products and services to industries world-wide.*

3 *It is well accepted that without the exceptional commitment and support of the two Presidents of South Africa and Mozambique - Mandela and Chissano – the Maputo Development Corridor would not have been the success it has become.*

4 *Southern African Development Community comprised of 14 countries in east, central and southern Africa and including the island states of Mauritius and Madagascar.*

5 *Common Market for Eastern and Southern Africa.*

6 *It should however be noted that no proper analysis has been carried out on these SDIs to assess their level of achievement. Furthermore, apart from studies done by SA academics, no cost benefit analysis has been done on the MDC itself.*

7 *Regional capacity could be enhanced through accession to continental and international resource monitoring and oversight bodies such as the African Union's APRM, the Extractive Industries Transparency Initiative (EIITI) and the Kimberley Process for diamonds certification.*

8 *By developing capacity for ongoing auditing, monitoring, regulating and improving of the resource exploitation regimes.*

9 *Consideration should be given to the pooling of resources with neighboring countries through cross-border infrastructure regulation (transport authorities, power pools, water catchment bodies, etc), joint management of cross-border resource deposits and the development of regional capacity to manage these relationships.*

10 *Examples include PPIAF, Devco Advisory, InfraCo, Guarantco, and the NEPAD IPPF.*

11 *Project finance already began to dry up in early September 2008 for projects in OECD countries and emerging markets.*

12 *"Slowdown in China Gets Worse, Increasing Global Woes", by Andrew Batson and Gordon Fairclough, Wall Street Journal, Thursday 11 December 2008.*