

Preparatory Survey for Southern Africa Integrated Regional Transport Program

Final Report

March 2010

JAPAN INTERNATIONAL COOPERATION AGENCY

PADECO Co., Ltd.

Mitsubishi UFJ Research and Consulting Co., Ltd.

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Preface

The Fourth Tokyo International Conference on African Development (TICAD IV) held in May 2008 emphasizes the importance of regional infrastructural development for the acceleration of economic growth in Africa. Furthermore, the African Union (AU) and the New Partnership for Africa's Development (NEPAD) have highlighted the need for regional transport development to facilitate the intra-regional trade and poverty reduction.

From such perspectives, the Japan International Cooperation Agency (JICA) has conducted a study for formulating desirable regional transport programs in the Southern African region, which has the highest cross-border traffic in Africa and significant potential for further economic growth due to its abundant mineral resource deposits.

This study proposes regional transport programs in the Southern African region based on three field visits conducted during September 2009 and March 2010

We sincerely hope that this report will contribute to further development in relevant sectors in the Southern African region and would like to express our sincere gratitude and appreciation to the individuals and organizations who have kindly supported and contributed to this study.

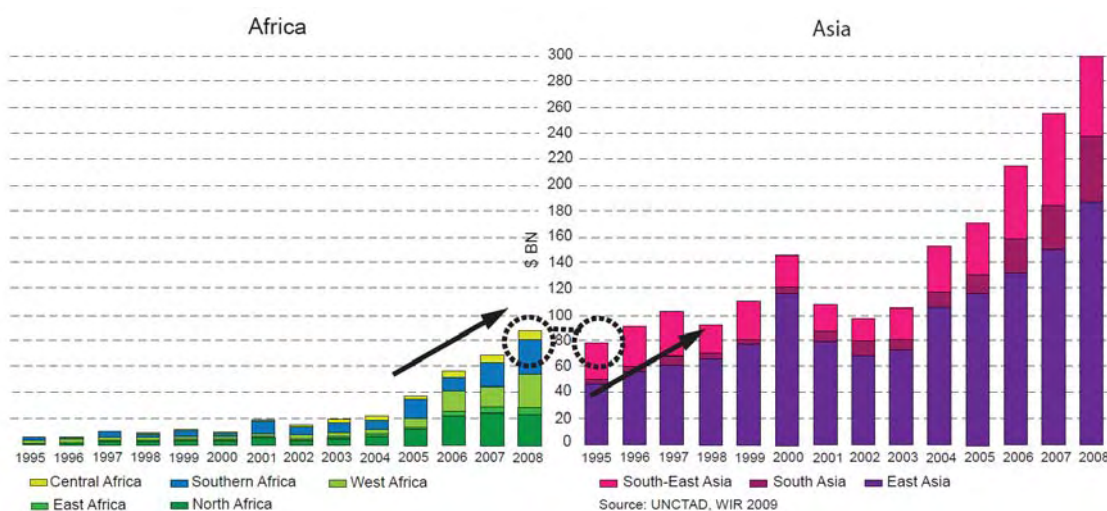
March 2010

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1 Why Africa Now?

Africa's Economy is Where Asia was 15 Years Ago

While 34 of the world's poorest 48 nations are in Africa, recent growth in foreign direct investment (FDI) suggests that the continent is becoming increasingly competitive, analogous to the experience of Asia 15 years ago. In particular, economies in Southern Africa grew significantly over the last decade. The region's abundance of natural resources (e.g., minerals, energy) and its productive agricultural sector has led to exponentially increased trade with emerging market partners such as China, India, and Brazil. However, while the region's balance of trade is moving in a favorable direction, inadequate transport (as well as energy and information and communications technology) infrastructure poses a major bottleneck to the region's achieving its full growth potential.



**Figure 1 FDI Inflows to Africa and Asia
(by value and as a % of gross fixed capital formation, 1995-2008)**

Foreign Direct Investments (FDI) to Africa in 2008 exceeded that in the previous year and reached a record level of USD 88 billion, comparable to that of Asia in the mid-1990s. However, the growth rates of FDI in Africa have substantially exceeded those of Asia. Particularly, growth in Southern Africa is remarkable.

Although each country in the Region had sustained economic growth in most of the last decade, this growth slowed dramatically with the global financial crisis commencing in 2008. It is therefore timely to reconsider the growth prospects of the Region and to formulate likely scenarios (strategies)¹ for future growth. An infrastructure development plan should be formulated to support the realization of such growth scenarios.

This Study has the following objectives:

1. To formulate growth scenarios for the Southern African Region, identifying factors that might hinder materialization of the scenarios, and propose measures to overcome these factors;

¹ There was some confusion about the word "scenarios" at the project seminar held in Lusaka in February 2010. It was clarified that the "scenarios" are not options; they are all necessary strategies for regional growth. See Appendix A, paragraph 20.

2. To formulate a holistic view of regional infrastructure creation, which is necessary to materialize the growth scenarios, and clarify the issues to be addressed mainly from an assessment of the regional transport sector; and
3. To propose directions for Japan's future assistance to the Southern Africa Region, focusing on a regional infrastructure support program for Japan to assist.

This study covers the following eight countries of the Southern African Region: Angola, Botswana, Malawi, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe; in addition, it covers as the Democratic Republic of Congo (DRC) and Tanzania, which play an important role due to their direct linkages to the Southern African Region.

2 What Will be the Desirable Growth Scenarios?

Pursue Expansion and Diversification of the Regional Economy

While the existing economy in Southern Africa is dependent on exporting mineral output and trade with South Africa, the region offers development potential in agriculture, service, and manufacturing, which may contribute to expansion and diversification of the regional economy.

Hypothesis of Growth Scenarios

1. **The engine of growth:** The industry that will lead growth in Southern Africa will still be mineral resources development, and the expansion of associated industries can be expected. However, since securing electric power supplies is indispensable to resources development, the acquisition or development of fuel resources (coal, hydroelectric power, and gas) is required. Also, the agricultural sector has substantial potential to further develop, based on investment in the sector.
2. **Physical distribution pattern:** The presence of South Africa in mineral resources and infrastructure development will relatively decrease, due to the entry of firms from emerging economies, as well as the activity of MDBs and other development partners. Physical distribution activities both centering on South Africa and in the surrounding countries of the region will thereby be activated
3. **Industrial structure:** The scenarios are based on SDI/development corridors, strengthening of the linkages with industrial development potential based on natural resources (comparative advantage), and policies/systems to diversify and advance the industrial structure. At the same time external market for trade will be diversified and intra-regional trade will be expanded.

Three Growth Scenarios

Scenario A)

Growth Led by Mineral Resources Development

The Scenario As the global economy recovers, investment by "major" companies in mineral resources development in Angola, Botswana, the DRC, and Zambia will be fully resumed. Investment from companies from emerging economies will continue. Basic infrastructure (electric power, transportation) required for development will be developed, and the investment in related sectors (agriculture, forestry, tourism, and manufacturing (processing and assembly) will be induced. Moreover, public and private investment in energy development projects (e.g., thermal power, hydroelectric power, gas) will be promoted to secure electric power supply.

Scenario B)

Growth through Intra-Regional Trade

The Scenario While regional trade is centered on trade with South Africa, productivity and incomes in neighboring countries in the region improve through local procurement (e.g., of raw materials including agricultural products, services) by South African companies. Moreover, intra-regional trade that does not go through South Africa will be expanded, including trade in agricultural products and livestock, intermediate goods, and consumer goods. In particular, intra-regional trade of agricultural and related products based on “complementary” structures will be developed through the improvement of transport infrastructure.

Scenario C)

Diversification and Advancement of the Industrial Structure through Global Trade

The Scenario Countries within the region will diversify and advance their industrial structures by linking industrial development potential based on natural resources (comparative advantage) along the development corridors, and policies/systems to improve their production cost structures with the reduction of customs tariffs and distribution costs. The diversification and advancement of the industrial structure will be promoted by the diversification of the export market outside the region. This eventually leads to strengthened competitiveness in the global market, with securing efficient access to the trading ports of each country.

Trade with Brazil, India and China are not only limited to raw natural resources, but also include intermediary commodities and end consumer products, suggesting the diversification of trade.

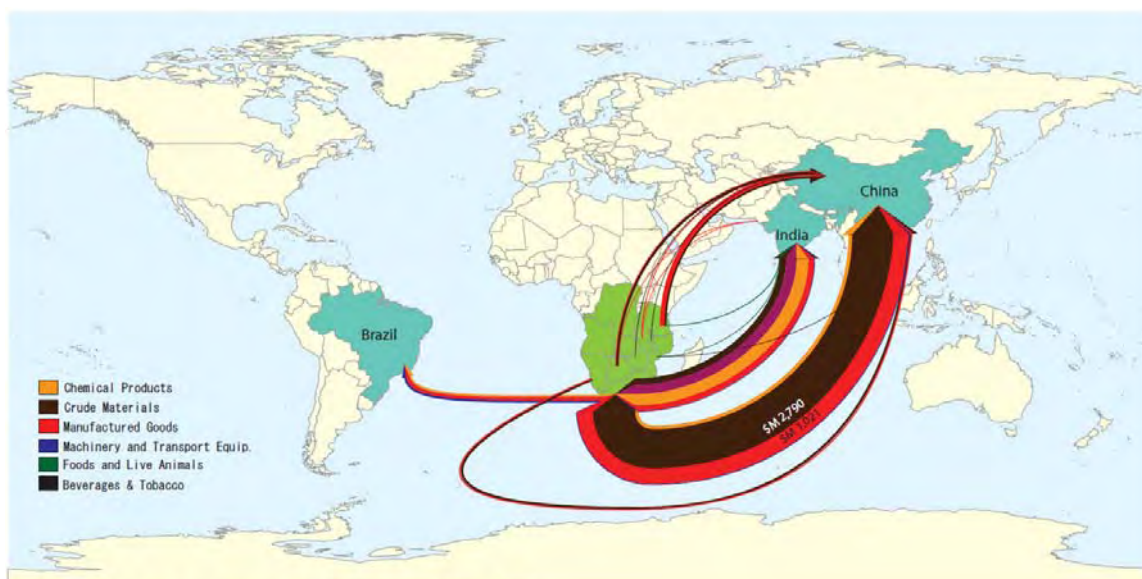


Figure 2 Export to BIC Countries by Trade Value (2008)

3 Corridors are Key for Growth

Corridors Connect and Diversify the Regional Economy

The existing 18 corridors in the region connect local mineral and agricultural resources with the 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.

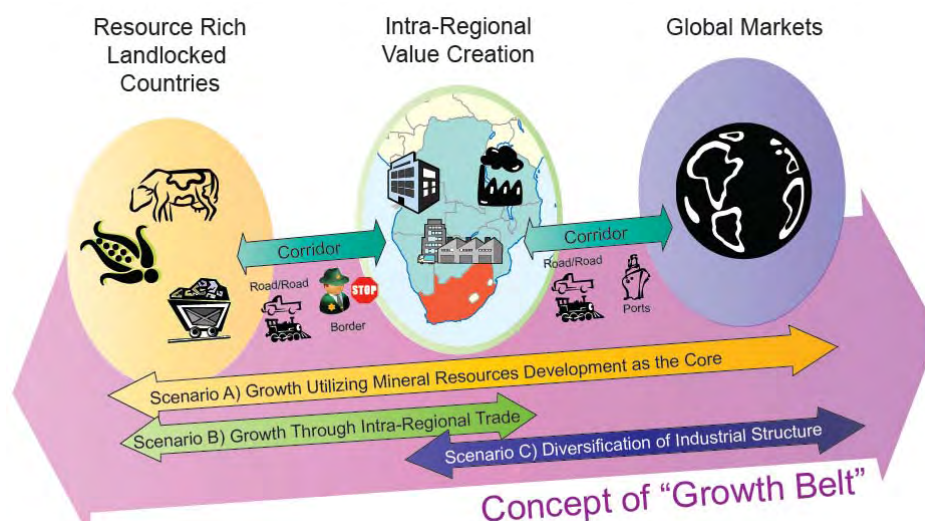


Figure 3 The Concept of "Growth Belt"

4 Bottlenecks to Growth Belt Development

Various Hard (Physical) and Soft (Institutional) Bottlenecks to Address

The existing bottlenecks along each corridor are explained in detail on the next page and can be categorized as follows:

Table 1 Existing Bottlenecks by Sector

ROADS	Roads in the major corridors are being improved with support from various international development partners. However, there have been difficulties in maintaining pavements at serviceable levels.
RAILWAYS	Railways have been deteriorating. The privatization of railways has resulted in extremely long waiting times at ports before cargo can be loaded on trains, hence causing extremely low productivity.
PORTS	The performance of the region's ports has been poor. The ports are always congested since cargo handling capacity lags growing demand. Import and export procedures require considerable time, and the detention of goods at ports has become a major obstacle to efficient distribution.
BORDER FACILITIES	Clearance times vary at the major border crossings from one to five days. Transporters need to cross several borders between ports and landlocked destinations. One-Stop Border Post (OSBP) services enhancing administrative processes were initiated at Chirundu (Zambia – Zimbabwe) in December 2009 with assistance from JICA and the U.K. Department for International Development (DFID). Other border crossings may also benefit from OSBP implementation and associated improvements.
REGION-WIDE REGULATIONS	Transporters are required to pay various road user and other fees to each of the governments along a corridor. Regional economic communities (RECs) facilitating intra-regional trade are working to lower and integrate such taxes in order to reduce transport costs.

5 Distribution of Region Resources and Corridors

The Study Team identified potential elements for growth including mineral and natural resources and agro products along the 18 corridors in the ten countries. The following chart summarizes the geographic distribution of resources and the relation between these elements, which offer the potential for realizing a growth belt in each corridor.

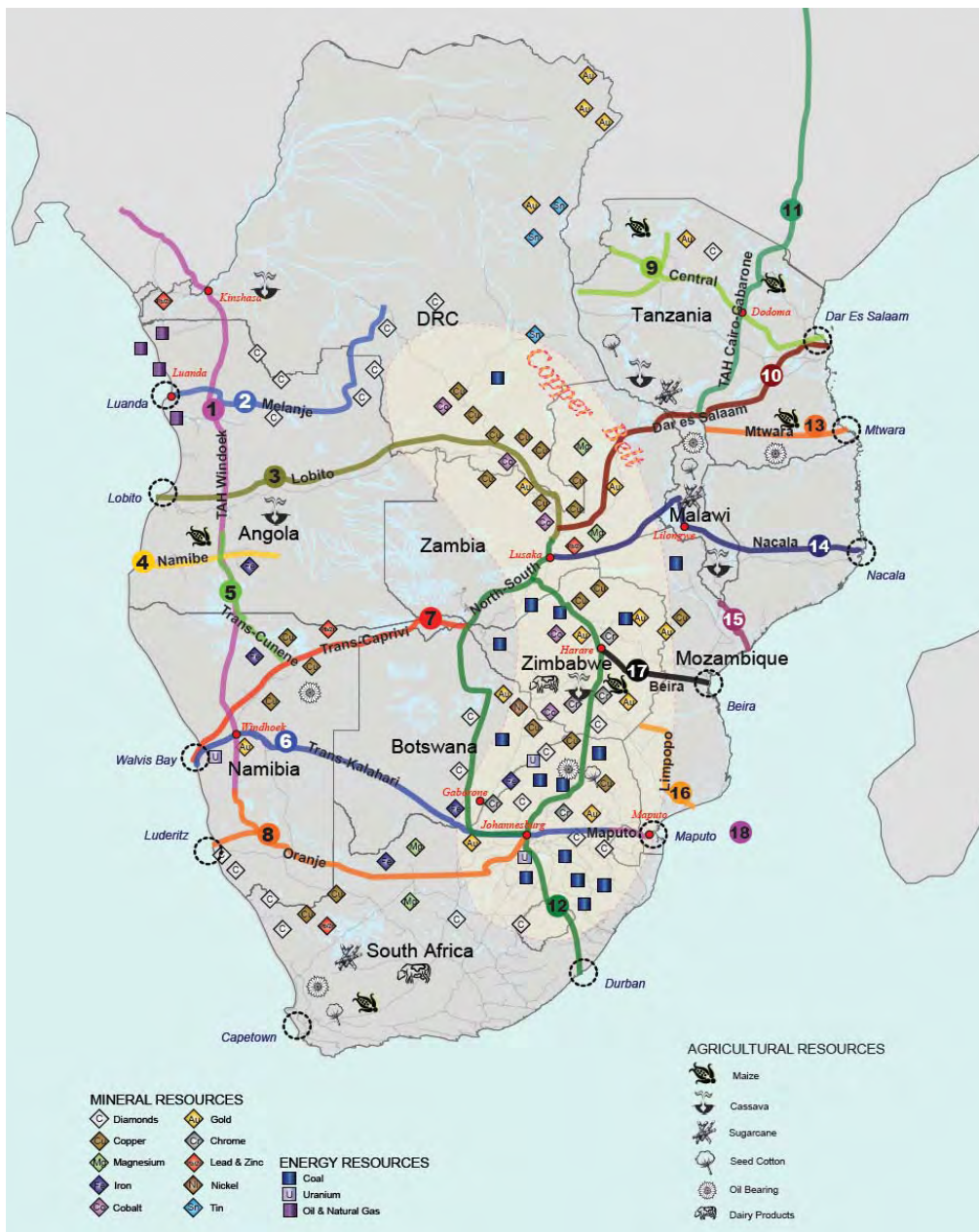


Figure 4 Existing Corridors, Mineral Resources and Agricultural Resources

(1) Mineral and Natural Resources

- Mineral and energy resources such as coal, uranium, and copper conglomerate are found along a vertical North-South axis through the DRC, Zambia, Zimbabwe, and South Africa, and including the Copperbelt.
- The following percentages of global reserves exist in the Southern Africa Region:

22% of Copper	58% of Diamond	40% of Chrome
40% of Cobalt	32% of Vanadium	10% of Nickel
87% of Platinum		

(2) Agricultural Resources

- High production in staple products such as maize, sugarcane, cassava, dairy products, potatoes, and seed cotton in the region including DRC, Tanzania, Mozambique, Malawi and South Africa. Particularly in Malawi, 85% of the population is employed in Agriculture and generates over 90% of export earnings.
- Some countries in Southern Africa have high shares of agricultural FDI inflows
- Large-scale land acquisitions are occurring in the region, including in Angola, the DRC, Tanzania, and, Zambia

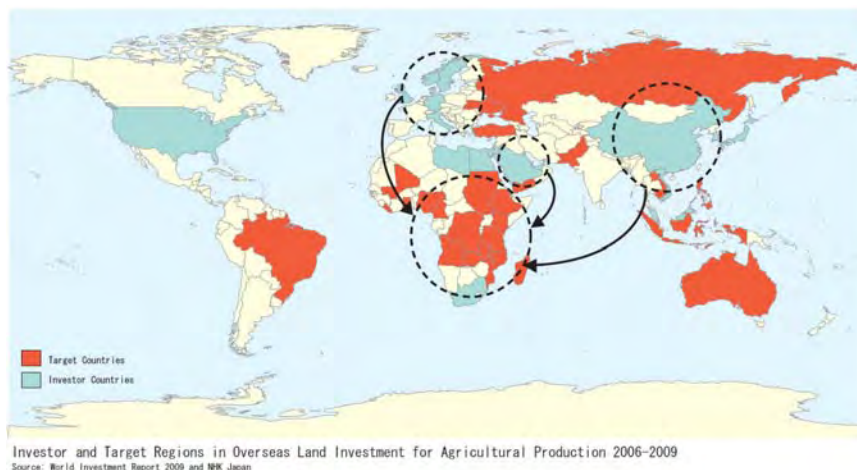


Figure 5 Land Investment for Agricultural Production

(3) Countries

- The region has 10 countries, a population of 230 million, and a total GDP of USD 570 million.
- Mineral resources are found extensively in the region’s four landlocked countries, which creates a challenge for the transport system.



Figure 6 Landlocked Countries

(4) Existing Conditions and Corridor Bottlenecks

The numbers for the Corridor Name correspond to the number on the corridor in the Figure 4.

Table 2 Existing Conditions and Bottlenecks by Corridor

Corridor Name	Potential Resources	Countries Traversed	Existing Condition / Bottlenecks
1. Tripoli-Windhoek Corridor		Angola, DRC, Namibia	- Long border crossing times - Missing links in the road network
2. Malange Corridor	Iron, Diamond, Oil and Natural Gas	Angola	<i>Road and rail:</i> - Extensive rehabilitations conducted by Chinese firms
3. Lobito Corridor	Copper	Angola, DRC, Zambia	- Rehabilitation required for Lobito rail link linking the port with the DRC/Zambia Copperbelt. - Repair and development of mines following the extended conflict in the DRC has been hampered by the lack of reliable transport to the sea.
4. Namibe Corridor	Iron	Angola	- Much anticipation for the repair of rail connections and the reopening of iron ore mines in Angola.
5. Trans-Cunene Corridor		Namibia, Angola	- Long Border crossing times at Oshikango/Santa Clara (3-5 days) due to complicated customs clearance processes. - Although major volumes of freight traffic move over 1,000 km along this corridor between the Port of Walvis Bay and highly populated regions in Angola, the corridor railway link is available only for 850 km within Namibia.
6. Trans-Kalahari Corridor	Gold	Namibia, Botswana, South Africa	- Roads in relatively good condition although road traffic volumes are not especially high. - Currently railway service is available only between the Port of Walvis Bay and Gobabis in Namibia. - Rapidly increasing container traffic at the Port of Walvis Bay expected to exceed the current terminal capacity in the short term.
7. Trans-Caprivi Corridor	Copper	Namibia	- Railway link available only for 600 km from the port to Grootfontein. - Congestion at the Port of Walvis Bay container terminal is expected to become an issue in the near future.
8. Oranje Corridor	Lead, Zinc	Namibia, South Africa	- Since the large iron ore mines at Sishen are already served by the dedicated Sishen-Saldanah rail line, the potential benefits from developing this corridor may not be as high as others.
9. Central Corridor	Maize	Tanzania, Uganda, Rwanda, Burundi	- A significant shortage of railway rolling stock as well as damaged railway track threatens railway transport capacity. - The railway route to Uganda is not functioning due to the suspension of wagon ferry operation on Lake Victoria. - Delay and congestion at the container terminal at Port of Dar es Salaam

Corridor Name	Potential Resources	Countries Traversed	Existing Condition / Bottlenecks
10. Dar es Salaam (TAZARA) Corridor	Cobalt, Magnesium, Copper, Seed Cotton, Cassava, Sugarcane, Maize	Tanzania, Malawi, Zambia	<ul style="list-style-type: none"> - Nakonde/Tunduma border crossing busy with long border crossing times (4-5 days). - Deterioration of road conditions caused by heavy mineral transport - Decreasing rolling stock availability on the TAZARA Line - The long clearance time at the Port of Dar es Salaam - Long dwell time at the container terminal (26 days)
11. Cairo-Gabarone Corridor		Tanzania, Malawi	<ul style="list-style-type: none"> - The road standard is not high except in Egypt and along the southern sections of the corridor. - Most of the traffic along the route is local rather than long-distance or international.
12. North-South Corridor	Copper, Maize	South Africa, Zambia, Zimbabwe, Botswana, DRC	<ul style="list-style-type: none"> - The only missing road (bridge) link is currently at the Kazungula border crossing. - Long border crossing time (1–2 days) at Chirundu and Beitbridge addressed by ongoing projects. - Long border crossing times at Kasumbalesa, between Zambia and the DRC - Railway operated inefficiently due to issues related to “hard” infrastructure and operations.
13. Mtwara Corridor	Copper, Maize	Tanzania, Malawi	<ul style="list-style-type: none"> -High potential for mining, but small port and out-of-service rail line linking the main agricultural areas to the port may be a bottleneck.
14. Nacala Corridor	Copper, Oil bearing plants, Seed Cotton, Cassava, Sugarcane	Mozambique, Malawi, Zambia	<ul style="list-style-type: none"> -Trunk route to the port currently serves low traffic volumes. -Most road sections unpaved and/or have high roughness levels. -Low railway operation speed and capacity due to track deterioration. -Traffic at the port is expected to increase rapidly beyond its current capacity.
15. Shire-Zambezi Corridor		Mozambique, Malawi	<ul style="list-style-type: none"> - With many river sections having depths of less than 1 m, extensive capital dredging is required for effective regional inland water transport. - Lack of an international port at the estuary.
16. Limpopo Corridor	Gold, Maize	Mozambique, Zimbabwe	<ul style="list-style-type: none"> - Served by the rail line from Zimbabwe to Mozambique. The Mineral Sands Project in Mozambique will benefit from the Corridor.
17. Beira Corridor	Chrome, Maize	Mozambique, Zimbabwe	<ul style="list-style-type: none"> - No financing for Corridor road, which has a long unpaved section. - Sena Railway Line under rehabilitation/reconstruction. - Only small feeder vessels able to enter the Port of Beira
18. Maputo Corridor		South Africa, Mozambique	<ul style="list-style-type: none"> - Decrease crossing time at Border. - The limited depth and sedimentation of the Port of Maputo causes delays in port clearance.

6 Prioritization of the Corridors

An Effective Combination of Regional Resources and Corridors

The follow up to the Fourth Tokyo International Conference on African Development (TICAD IV) held in May 2008 includes recommendations on regional transport infrastructure development and trade facilitation measures required for the “acceleration of growth” . While the 18 corridors are all important for regional economic development, with budgetary constraints it is necessary to optimize resource allocation and prioritize corridor development programs in order to maximize the effect on regional economic growth.

The Study Team analyzed the potential for integration of essential elements along each of the 18 corridors in terms of (i) contribution to growth scenarios, (ii) cost-benefit, and (iii) socio-economic impact in order to propose eight candidate growth corridors.

(1) Corridor Development Analysis

Corridor-based “contribution” to each of the three growth scenarios: Referring to the condition of each corridor and the geographic distribution of resources, evaluate each corridor based on its contribution to realizing the growth scenarios.	Corridor Development Analysis Evaluation of Corridors on Contributions to Growth Scenarios Scenario A Scenario B Scenario C
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(2) Benefit / Cost Analysis

Efficiency of corridor development: Referring to other indicators such as traffic volumes and the cost of implementation, evaluate efficiency of corridor development based on a benefit-cost analysis. Although this evaluation is relative, after the standardization of the outcomes, corridors with higher efficiency than average should be selected as prioritized corridors.	Benefit/Cost Analysis $\text{Benefit/Cost Score} = \text{Traffic Score} \times (\text{Benefit Score}) \div (\text{Cost Score})$
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(3) Socio-Economic Indicator Analysis

Ease of corridor development implementation: Referring to socio-economic status of the countries traversed by the corridors, evaluate the ease of materializing expected outcome. Finally, referring to result (ii) above, evaluate the result of prioritization, which is necessary to realize the “accelerate the growth.”	Socio-Economic Indicator Analysis Each of the below factors were analyzed for each Country traversing the subject corridors. Demographic Potential Scale of Economy Governance Business Environment
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(4) Origin-Destination (OD) Analysis

The map in Figure 6.3 shows the results of a computer simulation that assigned the desire line for 2019 onto the existing network. The existing network can accommodate traffic demand for 2019 and the volume of traffic that would have to take detours is not high and the detours are

short. Consequently, there is no need for an entirely new corridor to be established, at least until 2019.



Source: Prepared by the Study Team

Figure 7
2009 OD Estimated Desire Lines
with Existing Corridors



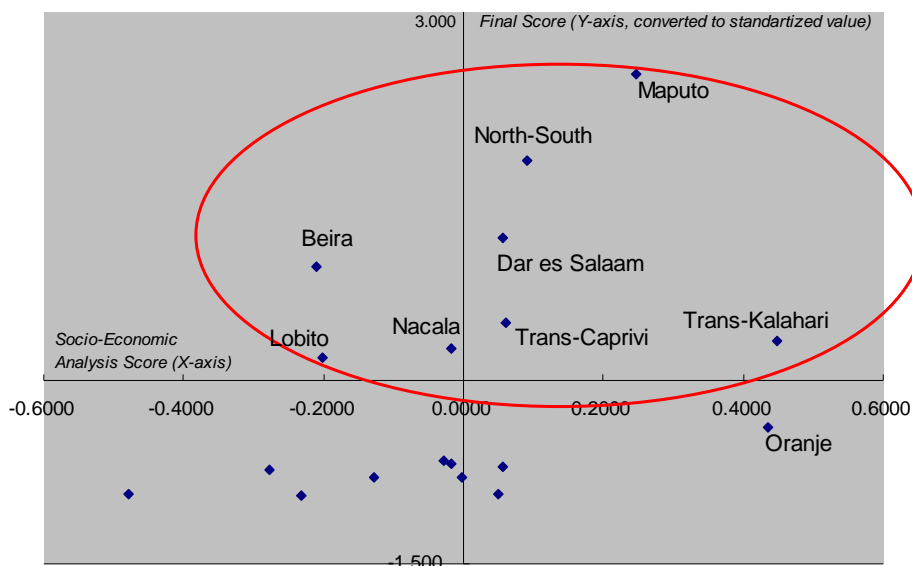
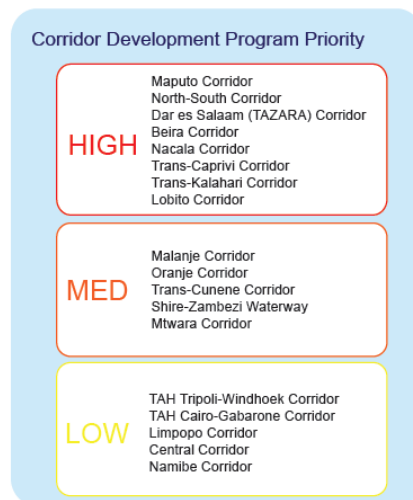
Source: Prepared by the Study Team

Figure 8
2019 OD Estimated Desire Lines
with Existing Corridors

(5) Prioritization Result and Consideration

Based on the above 4 analysis, the following Corridor Development Program Priorities were concluded.

- (i) Maputo Corridor,
- (ii) North–South Corridor,
- (iii) Dar es Salaam Corridor,
- (iv) Beira Corridor,
- (v) Nacala Corridor,
- (vi) Trans-Caprivi Corridor,
- (vii) Trans-Kalahari Corridor, and
- (viii) Lobito Corridor.



Source: Prepared by the Study Team

Figure 9 Analysis of the Selected Corridors

Figure 9 shows the results of the assessment of (2) Benefit/Cost analysis (efficiency value) and (3) Socio economic indicator analysis (potential for project implementation) on a positioning map. It can be considered that the efficiency value, including expected growth and cost, represents internal elements of corridor development, while the potential for project implementation represents external or peripheral elements of corridor development. For example, the results for the Beira and Dar es Salaam Corridors were similar in terms of efficiency, but the figure suggests that the Dar es Salaam Corridor has an advantage in terms of project implementation.

The Oranje Corridor, ranked high in terms of the potential for project implementation, was not selected since its efficiency score was relatively low. Generally, the corridors that scored high on efficiency have higher scores for project implementation potential.

In summary, it is necessary to consider both internal and external elements in order to realize the impact of a corridor development program in terms of accelerating the growth of the region, as called for by TICAD IV.

7 Growth Belt Program Development

An Effective Combination of Regional and Corridor Development Initiatives

The JICA Study Team identified various shortages of infrastructure and institutional constraints in each corridor. Taking into account current activities of governments, RECs, and international development partners, the JICA Study Team identified potential programs for improving the prioritized corridors:

Table 3 Overall Strategies by Sector

Sector	Development Strategy
Road	- Formulation of systems to prevent road deterioration - Improvement of the regional road network
Railway	- Infrastructure development following operational improvements - Strengthening of international competitiveness of products through reductions in transport costs
Port	- Simplification of port procedures aiming at a single window approach - Development of the capacity of container terminals
Border Posts	- Development of legal framework and procedures for railway OSBPs - Infrastructure and system improvements through OSBP implementation
Transport Facilitation	- Addressing non-physical barriers to cross-border transport

8 Proposal for “8 Growth Belt” Implementation

Short-Term and Long-Term Development Strategies

The proposed programs for the prioritized corridors improvement are summarized in the following table.



Figure 10 Selected Priority Corridors

Table 4 Development Directions for Selected Priority Corridors

Corridor Name	Priority Sectors	Development Direction <i>Short term</i>	Development Direction <i>Long term</i>
Maputo Corridor	Border Post and Port	Approaches to reducing the border crossing time	The physical development of the Port of Maputo and/or an alternative port in the vicinity of Maputo as well as an improvement in port operation systems
North South Corridor	Bridge (Roads), Border Posts, and Railway	Bridge construction and OSBP development along the road corridor Implementation of measures to improve railway operations	Improvements of railway capacity through both hard and soft infrastructure measures
Dar es Salaam (TAZARA) Corridor	Port, Railway, and Border Post	Rolling stock to improve railway service, streamlined port procedures, and rehabilitation of deteriorated road sections	Increase railway capacity to facilitate a shift of heavy minerals from road to rail.
Beira Corridor	Railway and Port	Dredging at the Port of Beira Rehabilitation of the Sena Railway Line with FS of unpaved road sections traversing major production areas, followed by basic and detailed design studies	Reduce railway and road transport time and costs including the implementation of OSBP
Nacala Corridor	Railway, Port, and Road	Rehabilitate roads and undertake feasibility studies for railway track rehabilitation	Rehabilitate of corridor railway and improve the port. Border post improvements should follow road improvements and the development of traffic.
Trans-Caprivi Corridor	Port and Railway	Container terminal development at the Port of Walvis Bay	Construction of a proposed railway
Trans-Kalahari Corridor	Port and Railway	Undertake the first phase of construction of the container terminal at the port of Walvis Bay after the completion of the ongoing feasibility study	Extend the railway along the corridor Develop a new coal terminal at the port for the export of coal from Botswana
Lobito Corridor	Port and Railway	Short-term projects are considered difficult for the Lobito Corridor due to a lack of institutional readiness.	the Lobito Corridor is essential as an outlet for the Zambian mining sector, and there are substantial potential benefits from rehabilitating the North-East Zambian Route.

Short-Term: To Commence by 2012

Long-Term: To be Completed by 2020

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Abbreviations and Acronyms

AfDB: Africa Development Bank

AFT: Aid for Trade

ANE: Administração Nacional de Estradas (Mozambique)

ASANRA: Association of Southern Africa National Road Agencies

ASYCUDA: Automated System for Customs Data

AU: African Union

BBR: Beitbridge Bulawayo Railway

B/D: Basic Design

BOT: Build, Operate, and Transfer

BR: Botswana Railways

CAPE: Customs Automated Processing of Entries System

CAR: Central African Republic

CCFB: Companhia Dos Caminhos De Ferro Da Biera (Beira Railway Company)

CDC: Central Development Corridor

CDN: Corredor de Desenvolvimento do Norte

CEAR: Central East African Railways

CFM: Caminhos de Ferro de Moçambique

COMESA: Common Market for Eastern and Southern African States

CPI: Corruption Perception Index

DANIDA: Danish International Development Agency

DBSA: Development Bank of Southern Africa

D/D: Detailed Design

DFID: UK Department for International Development

DRC: Democratic Republic of Congo

EAC: East Africa Community

EASSy: East African Submarine Cable System

ECCAS: Economic Community for Central African States

ECP: Estratbgia de Combate a Pobreza (Poverty Reduction Strategy Paper)

EDF: European Development Fund
EIB: European Investment Bank
EIU: Economist Intelligence Unit
EOI: Expression of Interest
EPZ: Export Processing Zones
EU: European Union
FAO: Food and Agricultural Organization
FDI: Foreign Direct Investment
FESARTA: Federation of East and Southern African Road Transport Associations
FNDP: Fifth National Development Plan 2006–2010
F/S: Feasibility Study
FTZ: Free Trade Zone
GATT: General Agreement on Tariffs and Trade
GDP: Gross Domestic Product
GIS: Geographic Information Systems
GNI: Gross National Income
ICBC: Industrial and Commercial Bank of China
ICD: Inland Container Depot
ICT: Information and Communication Technology
IDC: Industrial Development Corporation
IFAD: International Fund for Agricultural Development
IIED: International Institute for Environment and Development
IMF: International Monetary Fund
JBIC: Japan Bank for International Cooperation
JICA: Japan International Cooperation Agency
KEXIM: Export-Import Bank of Korea
M&A: Merger and Acquisition
MCLI: Maputo Corridor Logistics Initiative
MDBs: Multilateral Development Banks
MDGs: Millennium Development Goals

MFEZs: multi facility economic zones

MGDS: Malawi Growth and Development Strategy

MOU: Memorandum of Understanding

MPDC: Maputo Port Development Company

NDP: National Development Plan

NEPAD: New Partnership for Africa's Development

NLPI: New Limpopo Projects Investments (Pvt) Ltd.

NRZ: National Railways of Zimbabwe

NSGRP: National Strategy for Growth and Reduction of Poverty

OAU: Organization of African Unity

OD: Origin-Destination

ODA: Official Development Assistance

OSBP: One Stop Border Post

PARPA: Action Plan for the Reduction of Absolute Poverty

PMAESA: Port Management Association of Eastern and Southern Africa

PPIAF: Public-Private Infrastructure Advisory Facility

PPP: Public Private Partnership

PRGSP: Poverty Reduction and Growth Strategy Paper

PSP: Public Sector Participation

RADDEx: Revenue Authorities Digital Data Exchange

RADS: Resource-based African Development Strategy

REC: Regional Economic Communities

RFID: Radio Frequency Identification devices

RICB: Regional Integration Capacity Building

RIP: Regional Indicative Programme

RISDP: Regional Indicative Strategic Development Plan

RSDIP: Regional Spatial Development Initiative Programmes

RSZ: Railway Systems of Zambia

SAD: Single Administrative Document

SADC: Southern African Development Community

SADC-FTA: Southern African Development Community–Free Trade Area

SADCC: Southern African Development Coordination Conference

SACU: Southern African Customs Union

SDI: Spatial Development Initiative

SEZ: special economic zone

SSATP: Sub-Saharan Africa Transport Policy Program

STEP: Special Terms for Economic Partnership

SWOT: Strengths, Weaknesses, Opportunities, and Threats

TAH: Trans-African Highway

TAZARA: Tanzania–Zambia Railway Authority

TEU: Twenty-Foot Equivalent Units

TICAD: Tokyo International Conference on African Development

TIMS: Trade Information Management System

UDEAC: Union Douaniere et Economique de l’Afrique Centrale
(Economic Community of Central African States)

UN: United Nations

UNCTAD: United Nations Conference on Trade and Development.

UNECA: United Nations Economic Commission for Africa

UNESCO: United Nations Education, Scientific, Cultural Organization

USAID: United States Agency for International Development

WB: World Bank

WBCG: Walvis Bay Corridor Group

WTO: World Trade Organization

1 Introduction

1.1 Background of the Study

Africa has 34 of the world's poorest 48 nations. Much has been debated over the reasons behind this situation, however, a general understanding suggests that the region's under-developed regional transport infrastructure is one of major factors hampering its economic development.

Historically, before the independence of the African nations, the typical transport system consisted of transport corridors (mainly railway-based) penetrating the continent from export ports to the supplying hinterlands. There was an increase in transport investment in many Sub-Saharan African countries for a short period of time in the 1960s, about the time of independence. From the 1960s to the mid-1980s, transport was accorded a low priority as the development policy climate in Sub-Saharan countries emphasized industrialization by import substitution rather than export orientation. Few new transport links were built and maintenance was neglected. By the mid-1980s transport infrastructure in Africa was generally worse than it was in the late 1960s. The "logistical revolution" and containerization developed rapidly from the late 1960s in the leading industrialized countries, dramatically lowering transport costs. It quickly spread worldwide but did not reach Sub-Saharan Africa until the late 1980s or early 1990s.¹

The gap in transport cost between Sub-Saharan Africa and the rest of the world has widened significantly. Transport prices in Africa are 50%–175% higher than the world average.² In addition to inadequate and inefficient physical transport infrastructure, various administrative impediments to the efficient movement of goods and people increase transport costs, which makes products in Africa uncompetitive in the world market as well as hampering the continent's economic development in general. A JICA East Africa Cross Border Transport Infrastructure Study conducted last year found that the elasticity of trade volume to transport cost was 2.5, i.e., a 10 percent decrease in transport costs increases trade by 25%.³ Thus, Africa's high transport costs have suppressed trade, which in turn has suppressed economic growth. Moreover, this problem of high transport costs due to poor infrastructure and other impediments tends to be more serious in the poorer, inland nations of the continent.

Due largely to historical reasons, Sub-Saharan Africa is divided into 48 countries, many of which are small in population and therefore mutual integration of economic activities makes more sense than development in isolation. This realization led to the formation of a number of Regional Economic Communities (RECs) on the continent. One requirement for developing regional transport infrastructure is to formulate an integrated plan to address multiple issues involving multiple countries including implementation. Since such infrastructure building involves interests of multiple nations and organizations, any plan formulated from a single nation's viewpoint is likely to fail. There are a large number of ongoing and planned transport projects and programs that have regional implications. Accordingly, development partners

¹ See, e.g., (i) Poul Ove Pedersen, "The Logistical Revolution and the Changing Structure of Agriculturally Based Commodity Chains in Africa", CDR [Centre for Development Change] Working Paper 2.12, October 2002; (ii) Poul Ove Pedersen, "The Role of Freight Transport in Economic Development: An Analysis of the Interaction between Global Value Chains and Their Associated Transport Chains", DIIS Working Paper No. 2007/12, 2007; (iii) Poul Ove Pedersen, "The Changing Structure of Transport under Trade Liberalisation and Globalization and its Impact on African Development", CDR Working Paper 00.1, January 2000; and (iv) Poul Ove Pedersen, "Zimbabwe's Freight Transport and Logistical System", CDR Working Paper 02.4, February 2002.

² Gael Raballand and Patricia Macchi, "Transport Prices and Costs: The Need to Revisit Donor's Policies in Transport in Africa", World Bank, 2009.

³ N. Limao and A.J. Venables, "Infrastructure, Geographical Disadvantage, Transport Costs and Trade", *World Bank Economic Review*, 15: 451–479, 2001.

considering assistance in the transport sector should examine the sector in the context of the whole region. It is therefore desirable to formulate a strategy to support regional transport infrastructure building and provide efficient support in coordination with other development partners.

In May 2008, The Fourth Tokyo International Conference on African Development (TICAD IV) adopted the Yokohama Action Plan, which emphasized the need to develop regional infrastructure to increase economic growth in Africa. The government of Japan announced the doubling of its assistance to Africa over the following five years and identified infrastructure development as a target.⁴ In response to the outcome of TICAD IV, the Japan International Cooperation Agency (JICA) carried out studies in East Africa and in West-Central Africa to formulate infrastructure development projects to stimulate economic growth in the respective regions by expediting both internal and external integration.

This Study was launched in August 2009 to assess how (transport) infrastructure should be developed in the Southern Africa Region to ensure economic growth. Although each country in the Region had sustained economic growth in most of the last decade, this growth slowed dramatically with the global financial crisis commencing in 2008. It is therefore timely to reconsider the growth prospects of the Region and to formulate likely scenarios (strategies)⁵ for future growth. An infrastructure development plan should be formulated to support the realization of such growth scenarios.

1.2 Objectives of the Study

This Study has the following objectives:

1. To formulate growth scenarios for the Southern African Region, identifying factors that might hinder materialization of the scenarios, and propose measures to overcome these factors;
2. To formulate a holistic view of regional infrastructure creation, which is necessary to materialize the growth scenarios, and clarify the issues to be addressed mainly from an assessment of the regional transport sector; and
3. To propose directions for Japan's future assistance to the Southern Africa Region, focusing on a regional infrastructure support program for Japan to assist.

1.3 Steps of the Study

This Study consists of the five-step methodology presented in Figure 1.3.1.

⁴ In 2005 the Commission for Africa identified infrastructure as one of the major continental challenges in *Our Common Interest* (Chapter 7, paragraph 61), as indicated below.

“Infrastructure is a key component of the investment climate, reducing the costs of doing business and enabling people to access markets; is crucial to advances in agriculture; is a key enabler of trade and integration, important for offsetting the impact of geographical dislocation and sovereign fragmentation, and critical to enabling Africa to break into world markets; and is fundamental to human development, including the delivery of health and education services to poor people. Infrastructure investments also represent an important untapped potential for the creation of productive employment.”

⁵ There was some confusion about the word “scenarios” at the project seminar held in Lusaka in February 2010. It was clarified that the “scenarios” are not options; they are all necessary strategies for regional growth. See Appendix A, paragraph 20.

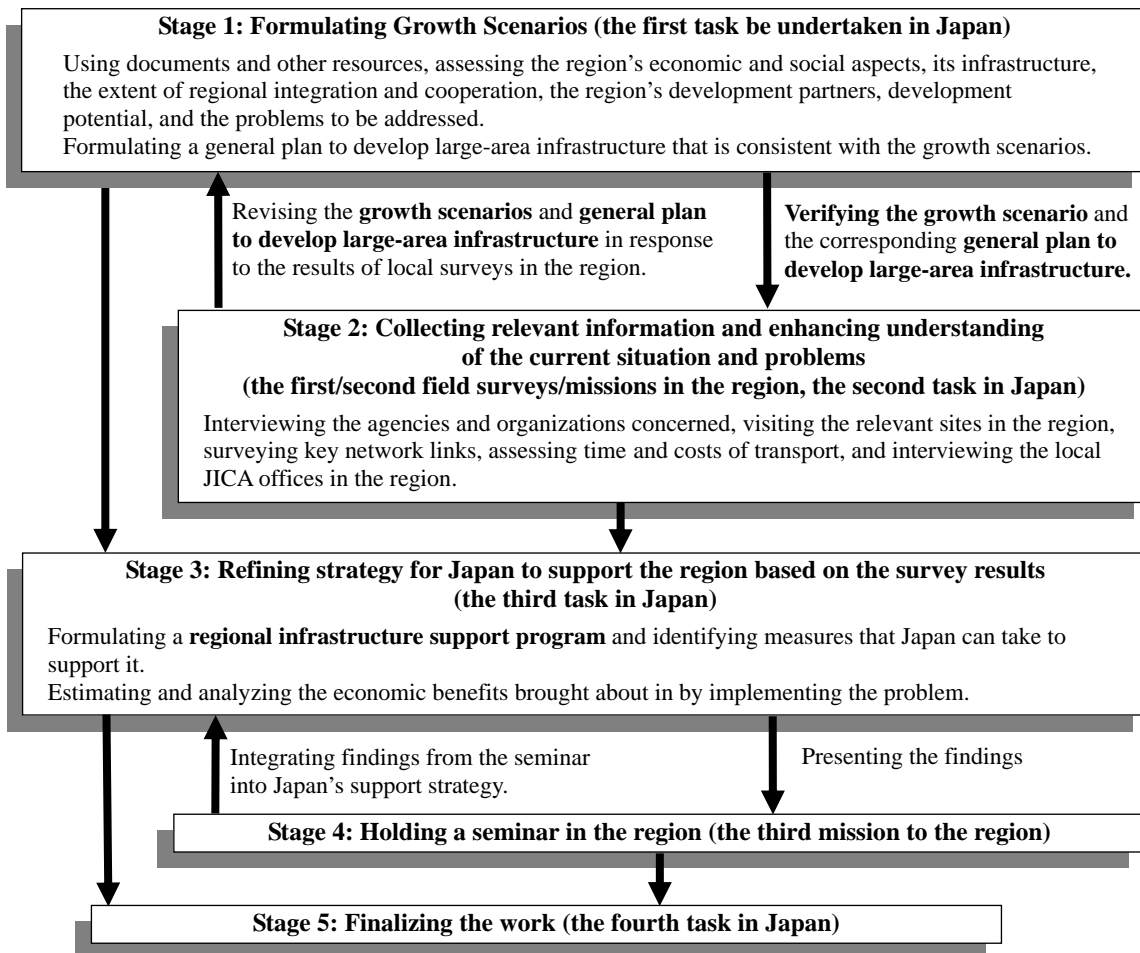


Figure 1.3.1 Study Methodology

This report delivers the outcomes of the various analyses conducted in accordance to the study methodology indicated above. The distinct analyses along each step, its relationship to other sections, and the chapter breakdown of the report are visualized in Figure 1.3.2.

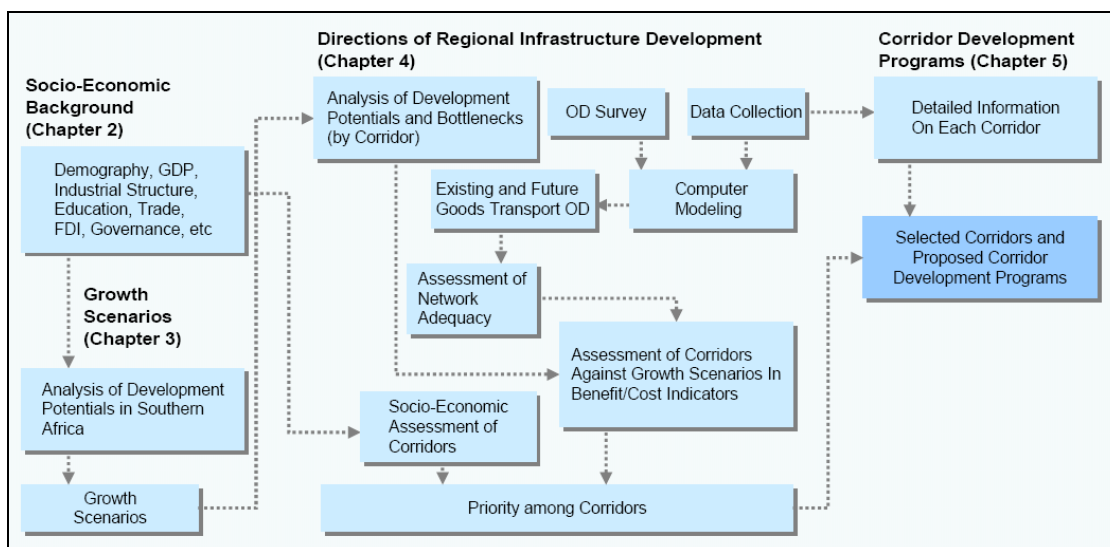


Figure 1.3.2 Analysis Flow and Chapters in the Report

The study proposes to rebuild the role of the regional economic and transport corridors according to the Growth Scenarios, building on the concept of the “Growth Belt” which encompasses the integration of local “Mineral and Agricultural Resources”, regional value creation hubs, and global markets.

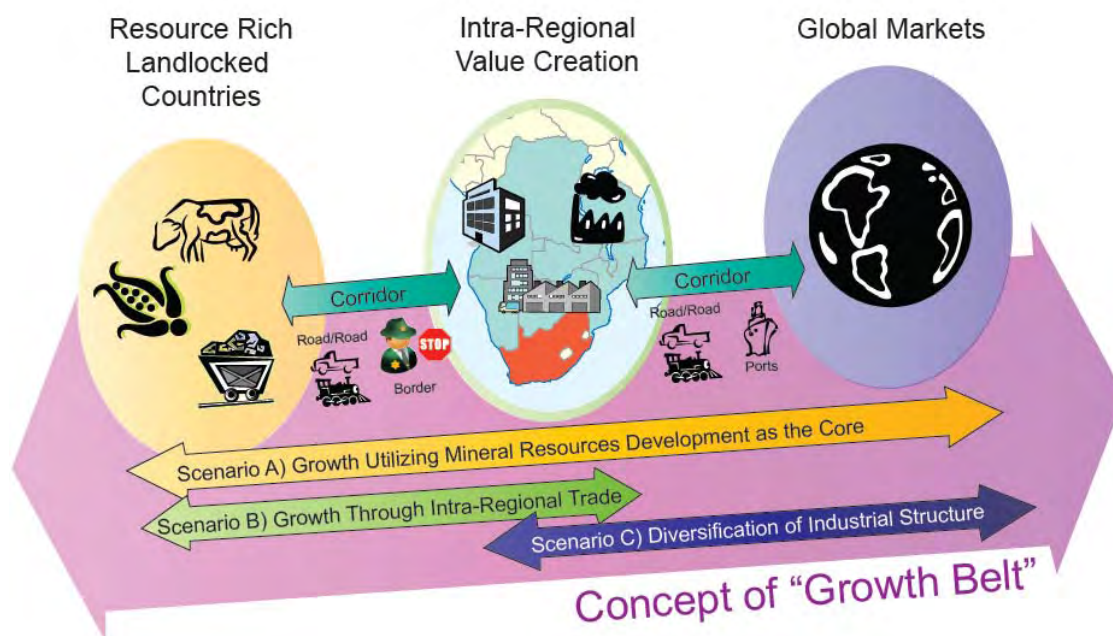


Figure 1.3.3 Concept of the “Growth Belt”

1.4 Region and Countries Covered by the Study

Countries Covered by the Study

This study covers the following eight countries of the Southern African Region: Angola, Botswana, Malawi, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe; in addition, it covers as the Democratic Republic of Congo (DRC) and Tanzania, which play an important role due to their direct linkages to the Southern African Region.

Countries Covered by Site Visits

Site visits in the Region were undertaken in six of the ten countries: Botswana, Malawi, Mozambique, Namibia, South Africa, and Zambia.

1.5 Study Logistics

Preliminary desk study was undertaken in Tokyo in August and September 2009. A three-week fact-finding mission was launched in late September 2009, with visits to Botswana, Malawi, South Africa, and Zambia. A large number of organizations, public and private, were visited and many senior officials were interviewed. Questions addressed problems faced, policies, ongoing projects and plans, and statistical data. Another three-week mission was dispatched to the region in November 2009, this time visiting Mozambique, Namibia, and South Africa.

In the mid-November 2009, a series of traffic surveys was initiated through a subcontractor at 10 pairs of border crossings. Information on cargo origins and destinations, type of cargo, and type and degree of problems encountered during the journey, were collected. The results of these surveys are reflected in this report, and summarized in Appendix E.

A number of videoconferences were held linking JICA headquarters and JICA offices in Africa, to discuss the direction of the Study and inform the Study Team of the current situation in the region.

On February 18th, 2010, JICA and the Study Team held a Stakeholder Seminar in Lusaka, Zambia, where over 40 delegates representing key organizations in the Southern Arica Region discussed the findings and content of this study. This Final Report presents findings obtained through the two fact-finding missions to the region, which ended in late November 2009, analysis undertaken in Japan, as well as the inputs of the seminar, Appendix A provides the summary of proceeding of the seminar.

2 Socio-Economic Conditions of Southern Africa

2.1 Socio-Economic Conditions of the Region

2.1.1 Social Conditions

There are many methods for measuring social circumstances. This section presents a comparative analysis of the factors most influential to future economic growth such as population, education and governance.

(1) Demography

Overview demographic indicators for the region are presented in Table 2.1.1 below, while Table 2.1.2 presents comparatives.

Table 2.1.1 Demographic Indicators of the Subject Countries

	Country	2000	2005	2010	2015	2020	2030	2040	2050
1	Angola								
	Population (000s)	14,280	16,618	18,993	21,690	24,507	30,416	36,380	42,267
	Pop. Density (#/km ²)	11.00	13.00	15.00	17.00	20.00	24.00	29.00	34.00
	Growth Rate (%)	2.60	3.03	2.67	2.66	2.44	2.06	1.71	1.43
2	Botswana								
	Population (000s)	1,723	1,839	1,978	2,106	2,227	2,434	2,600	2,758
	Pop. Density (#/km ²)	3.00	3.00	3.00	4.00	4.00	4.00	4.00	5.00
	Growth Rate (%)	2.11	1.31	1.45	1.26	1.12	0.82	0.64	0.57
3	DRC								
	Population (000s)	50,829	59,077	67,827	77,419	87,640	108,594	128,907	147,512
	Pop. Density (#/km ²)	22.00	25.00	29.00	33.00	37.00	46.00	55.00	63.00
	Growth Rate (%)	2.47	3.01	2.76	2.65	2.48	2.03	1.62	1.26
4	Malawi								
	Population (000s)	11,831	13,694	15,692	17,998	20,537	25,897	31,267	36,575
	Pop. Density (#/km ²)	100	115	132	152	173	219	264	309
	Growth Rate (%)	3.08	2.87	2.78	2.74	2.64	2.20	1.79	1.50
5	Mozambique								
	Population (000s)	18,249	20,834	23,406	25,957	28,545	33,894	39,185	44,148
	Pop. Density (#/km ²)	23	26	29	32	36	42	49	55
	Growth Rate (%)	2.70	2.65	2.33	2.07	1.90	1.66	1.38	1.14
6	Namibia								
	Population (000s)	1,824	2,009	2,212	2,412	2,614	2,993	3,311	3,588
	Pop. Density (#/km ²)	2	2	3	3	3	4	4	4
	Growth Rate (%)	2.37	1.93	1.93	1.73	1.61	1.26	0.94	0.76
7	South Africa								
	Population (000s)	44,872	48,073	50,092	51,684	52,671	54,726	56,041	56,802
	Pop. Density (#/km ²)	37	39	41	42	43	45	46	47
	Growth Rate (%)	1.62	1.38	0.98	0.47	0.38	0.35	0.20	0.12
8	Tanzania^a								
	Population (000s)	30,953	39,000	45,000	45,600	49,700	55,900	60,300	66,840
	Pop. Density (#/km ²)	39	41	44	44	53	61	68	73
	Growth Rate (%)	2.34	1.95	1.72	1.33	2.10	2.20	2.20	2.65
9	Zambia								
	Population (000s)	10,467	11,738	13,257	14,980	16,916	20,889	24,937	28,957
	Pop. Density (#/km ²)	14	16	18	20	22	28	33	38
	Growth Rate (%)	2.78	2.29	2.43	2.44	2.43	2.01	1.70	1.43
10	Zimbabwe								
	Population (000s)	12,455	12,475	12,644	14,029	15,571	17,917	20,076	22,178
	Pop. Density (#/km ²)	32	32	32	36	40	46	51	57
	Growth Rate (%)	1.23	0.03	0.27	2.98	2.09	1.31	1.10	0.94

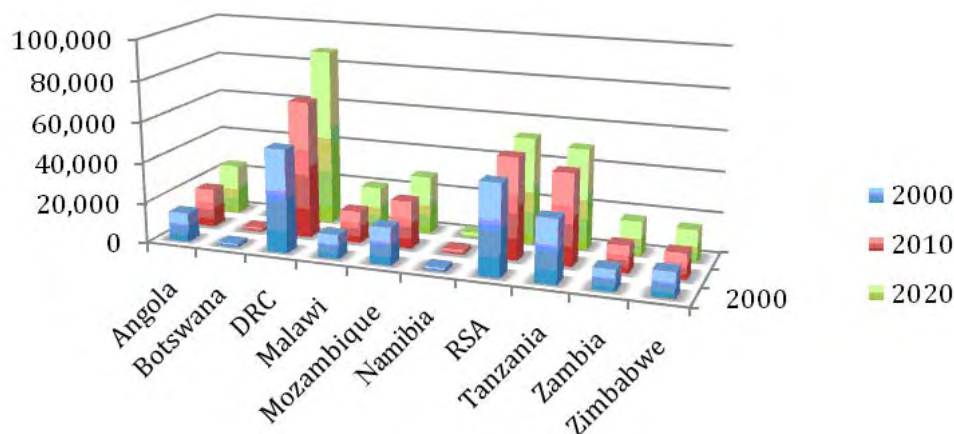
Source: UN World Population Prospects. ^aData for Tanzania is estimated, as it was not available from the primary database.

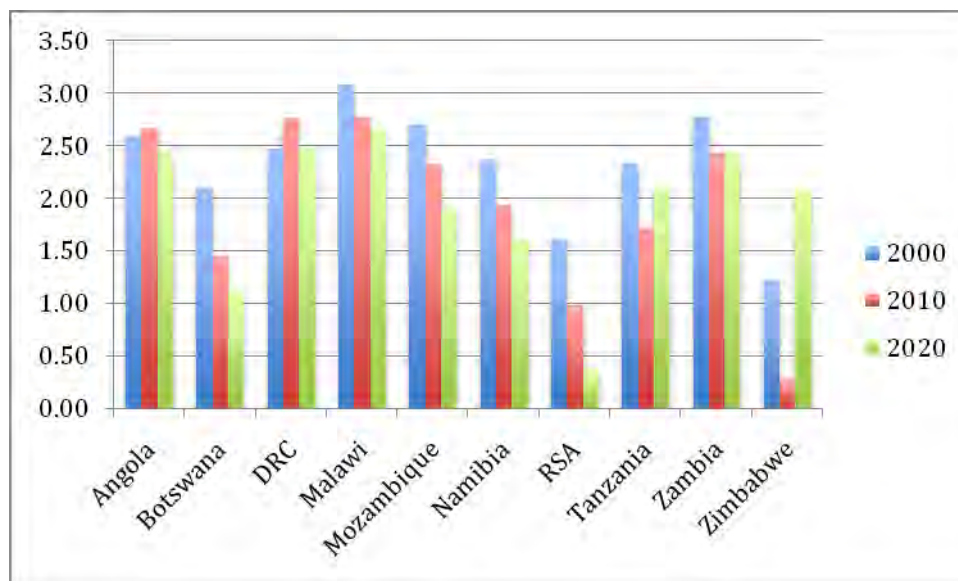
Table 2.1.2 Comparative Demographic Indicators

	2000	2005	2010	2015	2020	2030	2040	2050
World								
Population (000s)	6,115,367	6,512,276	6,908,688	7,502,186	7,674,863	8,308,895	8,891,196	9,149,984
Pop. Density (#/km ²)	45	48	51	54	56	61	65	67
Growth Rate (%)	1.36	1.26	1.18	1.11	1.00	0.73	0.53	0.34
Less Developed Regions (Excluding China)								
Population (000s)	3,646,339	3,976,103	4,309,597	3,643,376	4,967,045	5,556,003	6,874,777	6,448,481
Pop. Density (#/km ²)	50	54	59	63	68	76	83	88
Growth Rate (%)	1.87	1.73	1.61	1.49	1.35	1.05	0.80	0.57
Sub-Saharan Africa								
Population (000s)	674,842	764,328	863,314	970,173	1,081,114	1,307,831	1,536,463	1,753,272
Pop. Density (#/km ²)	28	31	36	40	45	54	63	72
Growth Rate (%)	2.58	2.49	2.44	2.33	2.17	1.83	1.54	1.25

Source: UN World Population Prospects.

As indicated in Table 2.1.1, there is considerable variation in the population of the subject countries with the DRC having the largest population and Botswana the smallest. Figure 2.1.1 provides a graphical representation of existing and projected trends in population presented in Table 2.1.1, while Figure 2.1.2 graphically depicts population growth rates in the subject countries, again based on Table 2.1.1.

**Figure 2.1.1 Population in the Subject Countries, 2000–2020**



**Figure 2.1.2 Population Growth Rates (%)
in the Subject Countries, 2000–2020**

While positive growth trends in population are evident for each of the subject countries, these growth rates are projected to decline over the coming decades, although absolute increments in numbers will have an associated impact on population density.¹

(2) Education

Current data on the education situation in the subject countries is not readily available particularly in a comparable format.² Typically even where data is available it is old (circa 2000) and validity in the current context is limited. From the limited material identified, it is clear that the subject countries that have avoided hostilities and military unrest in recent years have realized broader educational achievements than more troubled countries. In that context, South Africa and Botswana have achieved some 80% enrollment in secondary schools but countries such as the DRC, Zimbabwe, and Mozambique continue to suffer from low enrollment rate. With the exception of Mozambique, this situation in at least some of these countries is likely to continue under current unrest conditions. While it is not possible under current conditions of data availability regarding educational achievements in the subject countries to make specific observations, it is clear that with perhaps the exceptions of South Africa and Botswana major challenges will continue in the education sectors.

(3) Governance

The concept of governance is a broad-ranging assessment of the extent to which government informs and empowers citizens to hold it to account. The leading source of information on the quality of governance in Africa and the subject countries in particular is the Ibrahim Index, which provides a comprehensive ranking of African countries according to governance quality. Table 2.1.3 below provides an overview of current status as measured by the Ibrahim Index, while Figures 2.1.3 and 2.1.4 present such data in graphical form.

¹ According to the statistics of the UN.

² See, e.g., the UNESCO database at: <http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=198&IF>.

Table 2.1.3 Governance in the Subject Countries

Country	Rank			Score					CPI ^b
	2007	2005	2000	2007					2009
				Total	P & HR	S & ROL	HD	SEO	
Angola	42	46	51	41.02	43.54	41.64	41.83	37.05	1.90
Botswana	4	3	4	73.59	72.81	85.05	68.16	68.34	5.60
DRC	50	51	52	33.25	35.56	31.43	36.08	29.93	1.90
Malawi	25	27	21	53.03	57.93	65.60	44.74	43.84	3.30
Mozambique	26	20	16	52.38	63.00	62.47	37.46	46.60	2.50
Namibia	6	6	6	68.81	72.67	79.53	61.29	61.73	4.50
South Africa	5	5	5	69.44	76.99	70.28	68.41	62.09	4.70
Tanzania	12	15	14	59.24	67.55	64.59	53.37	51.46	2.60
Zambia	18	21	25	55.30	59.69	66.46	47.30	47.77	3.00
Zimbabwe	51	49	46	31.29	31.99	28.92	44.07	20.17	2.20

P & HR: Participation and Human Rights

S & ROL: Safety and Rule of Law

HD: Human Development

SEO: Sustainable Economic Opportunity

CPI: Corruption Perception Index

Source: Mo Ibrahim Foundation: The Ibrahim Index. ^b Transparency International 2009

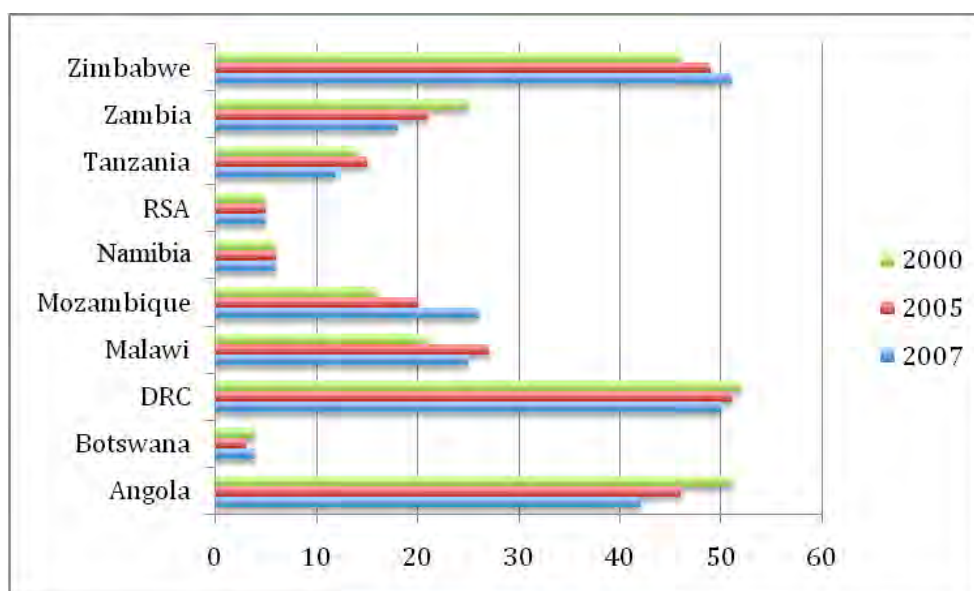
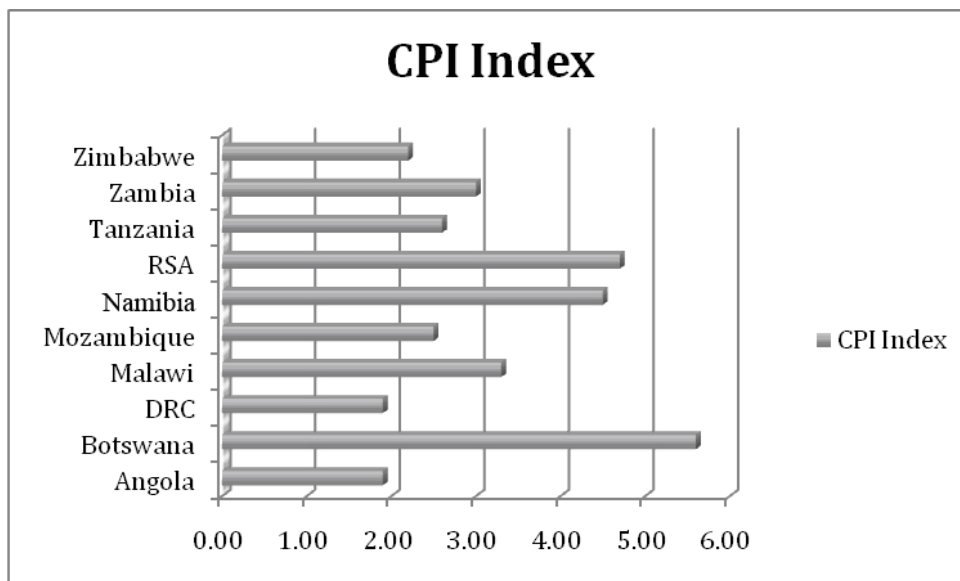


Figure 2.1.3 Ranking of Subject Countries on the Ibrahim Scale, 2000–2007



Source: Transparency International.

Figure 2.1.4 Corruption Perception Index by Subject Country, 2009

The Ibrahim Index measures the delivery of public goods and services to citizens by government and non-state actors. It uses indicators across four main pillars: (i) Safety and Rule of Law, (ii) Participation and Human Rights, (iii) Sustainable Economic Opportunity, and (iv) Human Development as proxies for the quality of the processes and outcomes of governance. The Ibrahim Index assesses governance against 84 criteria, making it the most comprehensive collection of qualitative and quantitative data that measures governance in Africa. The criteria are divided into four main categories and 13 subcategories. The indicators that comprise the subcategories are based either on official data or expert assessment. The higher the score the better the quality of Governance as determined by the index.

From the above table and figures it is apparent that the subject countries vary widely in terms of governance quality with South Africa, Botswana, and Namibia realizing rankings towards the top of the index and Zimbabwe and the DRC near the bottom. As is to be expected, indicators pertaining to the four main pillars are in line with overall rankings but also show some variations depending on localized circumstances. As with other indicators of social and economic conditions in the region, governance displays wide variation from country to country that to a significant extent reflects recent and ongoing civil and military experience.

Table 2.1.3 also includes data for each country from Transparency International's corruption perception index (CPI), which reflects the perceptions of citizens and others of the prevalence of corrupt practices in focus locations. Once again significant variation is encountered but it is notable that CPI data is very consistent with findings from the Ibrahim Index relative to governance quality. For comparative purposes, note that New Zealand enjoys the best result with a CPI of 9.4, while Somalia has the lowest with 1.1.

2.1.2 Economic Conditions

(1) "Headline" Economic Indicators

Table 2.1.4 below provides a summary of "headline" economic indicators for the subject countries; Figures 2.1.5 and 2.1.6 present this data graphically. In order to show an absolute value and the direction of change, values for 2007 and estimated values for 2010 are shown.

Table 2.1.4 Headline Economic Indicators

Country	GDP		GDP Growth %		GDP/Capita	
	2007 USD m	2010 USD m	2007	2010	2007 USD	2010 USD
Angola	61,402	96,317	21.10	7.30	5,216	6,912
Botswana	12,336	12,494	4.40	3.50	13,367	13,322
DRC	97,000	115,000	7.00	5.90	313	314
Malawi	2,441	2,675	7.90	5.30	505	598
Mozambique	7,800	9,400	7.40	6.00	794	920
Namibia	8,841	10,426	5.50	3.50	6,214	6,568
South Africa	283,679	281,875	5.10	3.10	9,693	10,397
Tanzania	16,399	24,401	7.10	5.50	1,188	1,354
Zambia	11,582	13,400	6.20	4.20	1,291	1,441
Zimbabwe	17,000	15,000	-5.60	1.90	177	159

Note: World GDP 2008, USD 60.6 Trillion and annual change 2.01%.

Source: Economist Intelligence Unit.

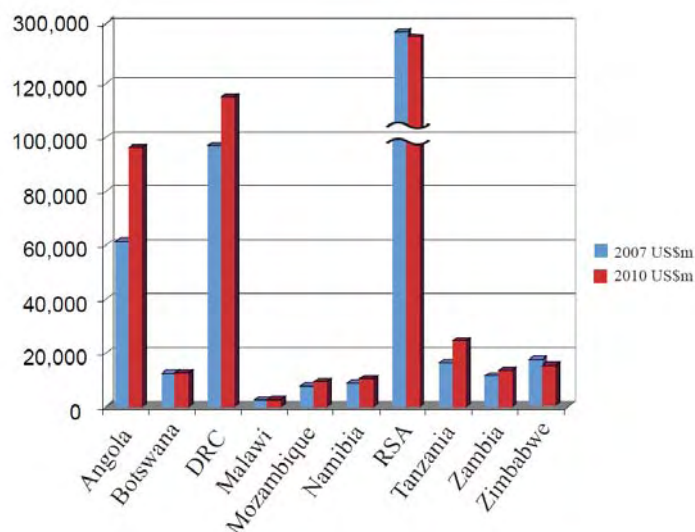


Figure 2.1.5 Subject Country GDP for 2007 and Estimated Value for 2010

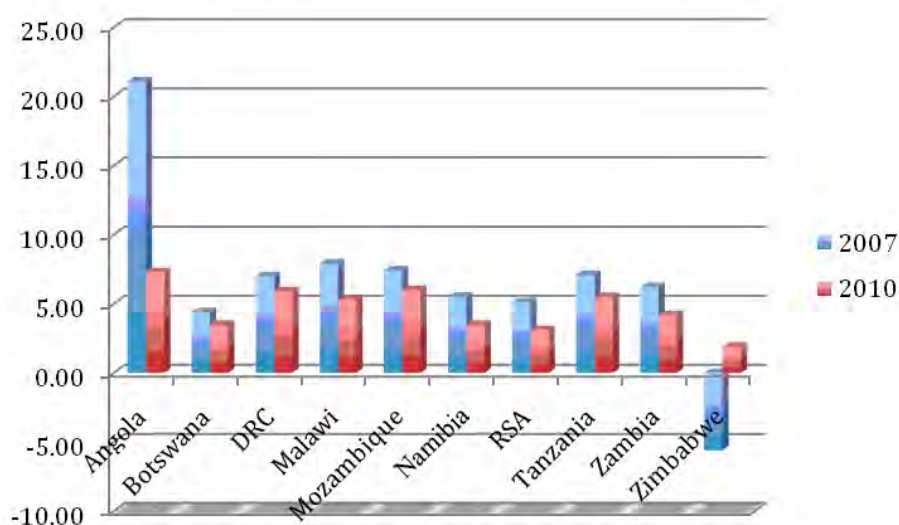
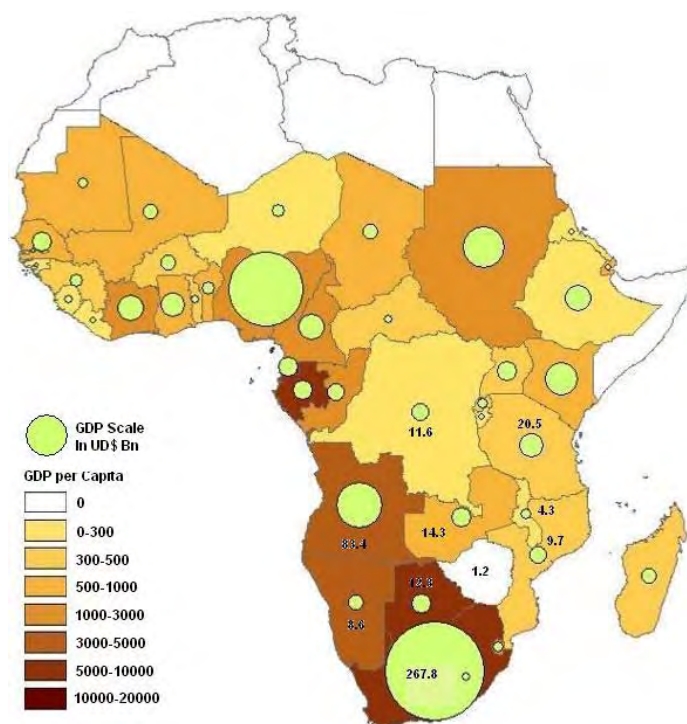


Figure 2.1.6 Subject Country GDP Growth Rate, 2007 and Estimated Value for 2010

As shown in Figure 2.1.5 above and Figure 2.1.7 following, South Africa dominates the region from the economic viewpoint with a towering GDP compared to the other countries in the region. Population and reserves of raw materials explain some of this disparity but other contributory factors include the country’s well-established infrastructure network, its sound governance systems, and its extensive international trade and business linkages. South Africa has a population of over 47 million, while Botswana and Namibia have populations of only about 2 million each. Except for the DRC and Tanzania, the other countries have populations of some 10–20 million each. Per capita gross national product (GDP) is more than USD 5,000 in South Africa, Botswana, Namibia and Angola followed by USD 1,000 range in Tanzania and Zambia. However, per capita GDP of the other countries are much lower, in the range of USD 150–800. It is guessed that key explanatory variables for per capita GDP include a country’s reserves of natural resources as well as distance from major ports and to a very significant extent the impact of poor governance and military unrest/conflict.

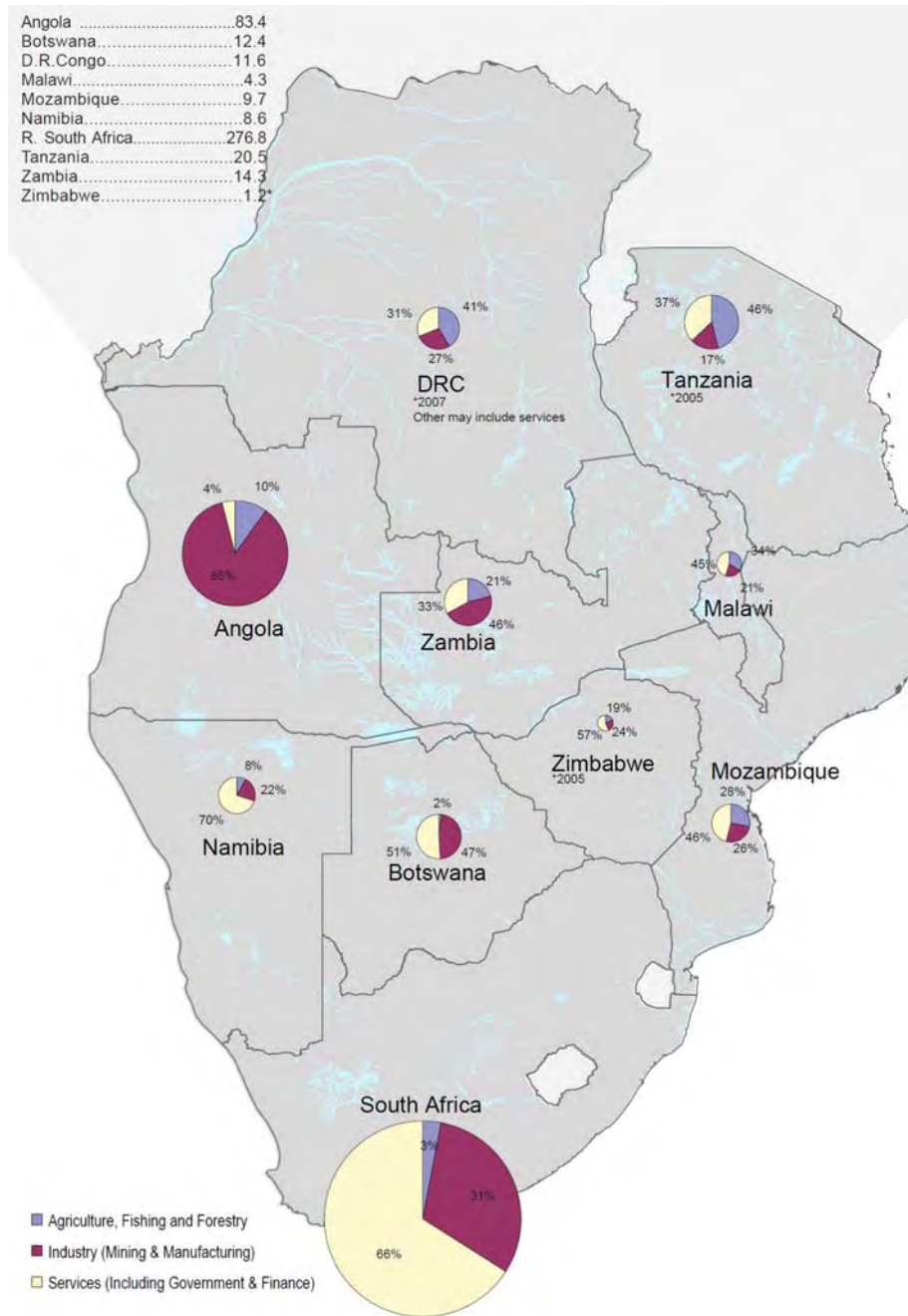


Source: Prepared from the World Development Indicators (WDI) Database (2007).

Figure 2.1.7 GDP and Per Capita GDP by Country

(2) Economic Structure

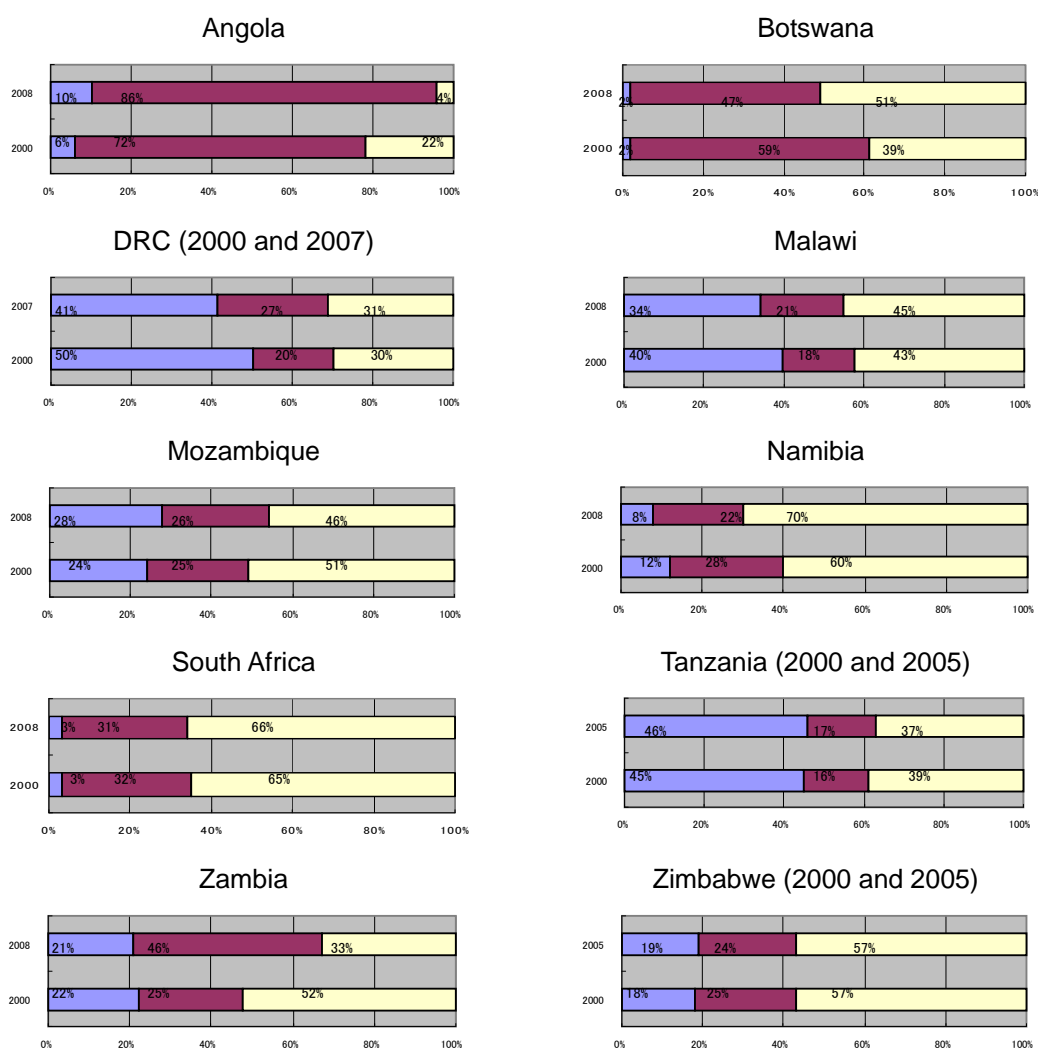
Figure 2.1.8 provides an economic comparison of the ten subject countries in terms of economic structure. Mining and manufacturing occupy a majority of the entire economic output of Angola, Botswana, and Zambia. Tanzania and DRC are heavily dependent on agriculture (40%–50%). In South Africa and Namibia, the service industries account for more than 60% of the national economy. One trend since 2000 has been that the ratio of mining and manufacturing has been expanding in agrarian countries such as the DRC, Zambia, Malawi, and Mozambique. With the exception of Angola, many of these nations have strong trading relationships with South Africa.



Source: Prepared by the Study Team, compiled from Central Bureau of Statistics, World Bank and EIU Reports, 2008.

Figure 2.1.8 Real GDP by Sector (% GDP, GDP 2007)

A number of changes in the economic structure (from FY2000 to FY2008) in the subject countries can be observed in Figure 2.1.9. In recent years, the industrial sector (including mining and manufacturing) has grown in Angola, the DRC, Malawi, and Zambia, influenced strongly by rising commodity prices. In Namibia and South Africa, the service sector has maintained its strength, constituting over 60% of the GDP. In Zimbabwe, the industrial structure has not changed much from 2000 to 2005, although accurate data of the situation since the country's economic crisis is unavailable, the severe economic strain with hyperinflation and associated adverse impacts on all sectors has recently started to show signs of recovery.



Legend:

- Agriculture, Fishing and Forestry
- Industry (including Mining and Manufacturing)
- Services (including Government and Finance)

Note 1): Mining and Manufacturing include construction, water and gas utilities.

Source: Prepared by the Study Team, from World Bank, World Development Indicators, 2008.

Figure 2.1.9 Industrial Structure of the Subject Countries in 2000 and 2008 (Value Added, % of GDP)

Tables 2.1.5 and 2.1.6 present further details on the subject country economies, summarizing recent shifts in economic structure, labor market,³ trade composition, and international relationships. Although South Africa's economic structure is highly industrialized, it has large production capacity for some agricultural and related products (e.g., maize, sugar cane, beef and buffalo meat, milk, beer). Some countries, including Malawi, have sizable production capacities for particular products, including maize, tobacco, rice, and bananas.

Table 2.1.5 Economic Structure and Recent Trends

Country	Economic Structure
DRC	Agriculture constitutes roughly 40% of GDP, with subsistence farming accounting for most of that. After the imposition of monetary controls in 2001, annual average inflation dropped to 4% (2004) from 550% (2000), allowing slow recovery of the financial sector after years of difficult conditions. Mining has traditionally been and remains strong, increasing its share of the national economy with substantial increases in commodity prices over the last decade and new mining codes. In terms of manufacturing, the DRC experienced a rapid deindustrialization after independence and there has only been a limited recovery since 2003.
Tanzania	While agriculture contributed only 28% to GDP in 2007, Tanzania depends heavily on the sector with over two-thirds of the labor force employed in this sector. The services sector accounts for about half of the GDP and has rapidly increased in the recent years due to expansion in finance, telecommunication, and tourism (WDI data for 2008 indicates that agriculture constituted 46% of GDP in 2005, while the services sector contributed 37%, suggesting that there has been a drastic shift to the service sector in the recent years).
Angola	Angola's economy is dominated by the oil sector, which accounts for around 60% of GDP and 95% of export revenues. Since the peace accord in 2002, rising oil production has driven extensive growth in real GDP, but the linkage between the capital-intensive offshore oil industry and the rest of the economy remains a challenge, and despite its massive contribution to GDP, the oil sector only employs 0.2% of the economically active population. The agriculture sector has been weak since independence making Angola dependent on food imports, and efforts to revive the sector have met with little success due to overvaluation of the currency, which has made production uncompetitive in international markets.
Botswana	The diamond mining industry has traditionally been and remains dominant in Botswana's economy. Mining contributed 42% of GDP in 2007. Global interest in minerals such as coal is also another area for potential growth. Services account for over 50% of GDP, which have grown robustly with a strong domestic market.
Malawi	Malawi is heavily dependent on the agriculture sector, which employs about 85% of the population, and generates over 90% of export earnings and about 35% of GDP. The staple crop is maize, and tobacco accounts for over 50% of merchandise export earnings. However, due to relatively non-diversified economic dependence on agriculture (which is highly susceptible to drought), the country's real GDP growth has fluctuated from year to year at relatively low levels
Mozambique	The economy is relatively diversified with agriculture, energy, fisheries, manufacturing, tourism, transport, and wage remittances all contributing to economic growth. Since 2000, the service sector has contributed at an average of half of the GDP. While agriculture contributes only about a quarter of the national GDP, some 80% of the population is involved in the sector. Further, despite the recent economic diversification, agriculture has been growing at a pace allowing the sector to maintain its relative share of GDP. The country faces a north-south divide in economic performance, where the integration Northern cash-crop surplus regions into the formal economy is inhibited.

³ Unemployment rate by country may be found at <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2129ra>; it is not presented here since the data seems to be of poor quality (e.g., 50% for Zambia) and/or old (e.g., 1997 for Mozambique).

Country	Economic Structure
Namibia	The service sector is the main engine of national economic growth, constituting over 50% of GDP, with the civil services, financial, and business subsectors accounting for the largest shares. About 70% of the population is dependent on agriculture, with commercial livestock accounting for most of the agricultural output. In 2007, mining contributed 14% of GDP, with diamond production alone accounting for half of mining GDP. However, it is expected that uranium is likely to replace diamonds in importance over the next five years.
South Africa	The service sector is the largest and accounts for about 66% of the national economy, a consequence of strong consumer demand and a sophisticated, well-developed financial sector. The country's diverse manufacturing industry, which produces a wide range of consumer goods, has regained growth since 2003. The rapid growth in the manufacturing and services sectors has created high demand for skilled labor, which continues to be in short supply. While the mineral wealth of the country as well as recent rising commodity prices led to an increased operation size of mines in 2007, the sector marginally contracted subsequently. The importance of agriculture has been decreasing steadily in recent years due to the growing manufacturing and service sectors.
Zambia	A rapid increase in copper mining over the past few years due to a combination of privatization and surging international prices has taken place in Zambia. Mining is the country's biggest export earner but accounts for only 5% of GDP. ⁴ However, it is important to note that many other sectors (such as services) are related to the mining sector. Maize production remains a dominant component of the agriculture sector, which accounted for 21% of GDP in 2008, and its annual performance is heavily influenced by weather conditions. In the industrial sector, apart from copper refining, manufacturing growth has climbed steadily since 1998 due to expansion in food, beverage, and tobacco production. The service sector accounts for 33% of total GDP led by government, financial, and insurance services subsectors.
Zimbabwe	Zimbabwe's rapidly contracting economy has been a challenge in the region. The obvious difficulties with fiscal policy, exchange rate, inflation, and other structural weaknesses have contributed to poor infrastructure, low operational capacity, and a high unemployment rate estimated to be as high as 80%. While Zimbabwe traditionally has been generally self-sufficient in food, the country's political and economic crisis led to a collapse in the agriculture sector. The rigidity of the Indigenisation and Empowerment Act of 2008 (which stipulated at least 51% of the shares of every public company and all other businesses must be owned by black Zimbabweans) and President Robert Mugabe's land reforms have at least arguably exacerbated the already difficult food situation in the country. Due to the ongoing collapse of the agriculture sector as well as high global prices for gold and platinum, the mining industry has become an increasingly important source for employment and foreign currency earnings. However, an exodus of skilled workers due to the economic crisis has threatened the viability of the industrial sector. However, mining is considered to be central to the country's recovery if essential economic reforms are put into place.

Source: EIU Country Reports, 2008.

⁴ The Economist Intelligence Unit Zambia Country Profile 2008 report stated that: "[m]ining is the country's biggest export earner but it contributes a relatively small amount to overall GDP, at less than 5% of GDP. However, this is slightly misleading, as so many other sectors of the economy are geared toward serving the mining sector. For example, much of the largest segment of GDP by factor cost, namely services, is related to the mining sector. In addition, the mining industry is an important consumer of local manufactured goods."

Table 2.1.6 Overview of the Subject Country Economies

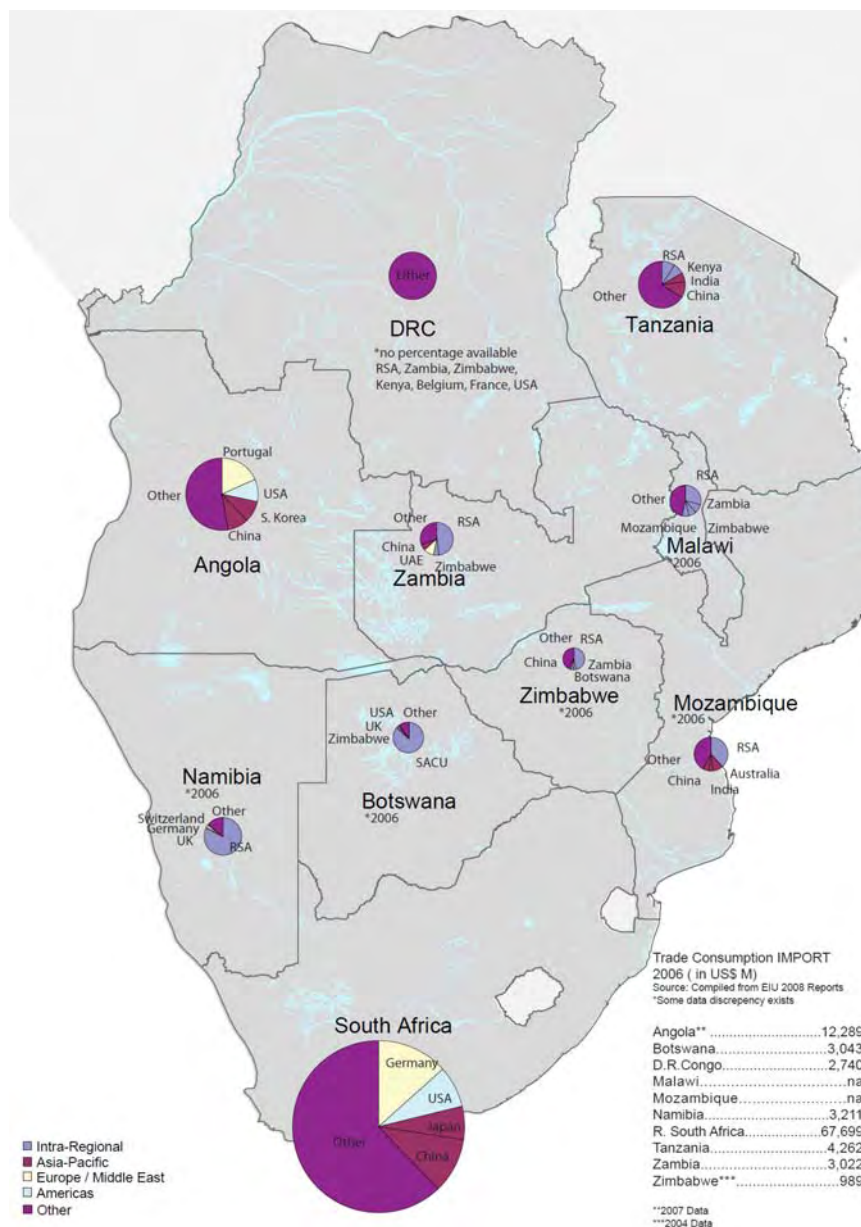
Country	Zambia	Malawi	Mozambique	Namibia	South Africa
Area	753,000 km ²	118,000 km ²	802,000 km ²	824,000 km ²	1,220,000 km ²
Population	11.90 million	13.90 million	21.40 million	2.10 million	47.60 million
Per capita GNI	USD640	USD230	USD310	USD3,210	USD5,390
Major industries	Agriculture, mining and manufacturing, tourism	Agriculture, manufacturing	Agriculture, fishery, mining and manufacturing	Agriculture, mining, fishery	Agriculture, mining and manufacturing
Major exports	Copper, cobalt	Tobacco, sugar, clothes	Aluminum, shrimps, raw cotton	Diamonds, industrial products	Gold, precious metals, minerals
Major imports	Machinery, oil	Oil, production goods	Machinery, automobiles and components, crude oil	Automobile products, refined oil	Machinery, automobiles, chemical products
Major export destinations	Switzerland (33.6%), South Africa (20.3%), China, Italy	South Africa, Germany, Egypt	Belgium (21.6%), Italy, Spain, China	UK, South Africa, Spain, Angola	USA (12.1%), Japan (10%), UK, China
Major import origins	South Africa (47.7%), Zimbabwe, UAE, China	South Africa (29.3%), Zambia, Zimbabwe	South Africa (38.2%), Australia, China, India	South Africa, Germany, UK, Switzerland	Germany (13.4%), China (10.4%), USA, Japan
Relationship with other countries and international development partners	Maintains good relationship with its development partners. While enhancing its ties with China, some are unhappy with Chinese exploitation of its natural resources.	Maintains good relationship with Western countries; receiving heavy bilateral aid from the USA, the UK, Germany, China and Japan.	Maintains good relationship with Western countries and Japan. Recently, China has been providing large investments and aid and has become a major trading partner.	While maintaining close ties with South Africa, its bilateral aid has come mainly from its former suzerain states, Germany, and the USA.	Is a leader in African development, pursuing a the vision of an “African Renaissance”.

Source: EIU Country Reports 2008, Little Data Book on Africa (World Bank), 2008

Country	Tanzania	Botswana	Angola	Zimbabwe	DRC
Area	945,000 km ²	582,000 km ²	1,247,000 km ²	390,000 km ²	2,345,000 km ²
Population	39.70 million	1.90 million	17.00 million	13.20 million	62.60 million
Per capita GNI	USD370	USD5,680	USD1,970	USD340	USD130
Major industries	Agriculture, mining and manufacturing, tourism	Agriculture, livestock farming, mining and manufacturing	Agriculture, mining	Agriculture, mining and manufacturing	Mining and manufacturing, agriculture
Major exports	Gold, raw cotton, coffee	Diamonds, copper, nickel	Oil, diamonds, oil products	Tobacco, gold, platinum	Diamonds, crude oil, cobalt
Major imports	Fuels, energy, foods	Machinery and electric products, foods and beverages	Consumer goods, capital goods, production goods	Machinery, industrial products, chemical products	Consumer goods, capital goods, raw materials
Major export destinations	China, India, Netherlands, Japan	UK (65%), SACU, Zimbabwe, USA	USA (34.9%), China (32.0%), France, Netherlands	South Africa (19.0%), DRC, Japan, Botswana	Belgium (24%), China, USA, Brazil
Major import origins	South Africa, China, Kenya, India	SACU (84.2%), European nations	Portugal (18.2%), USA, South Korea, China	South Africa (38.8%), Zambia (28.2%), China, USA	South Africa, Belgium, Zimbabwe, France, Kenya
Relationship with other countries and international development partners	Has built up a good relationship with the Scandinavian nations and China. Also has strong ties with the UK and Germany, while receiving substantial assistance from the USA and Japan.	Has strong trading ties with South Africa.	Has the USA as its major trading partner. Also is welcoming investments from Portugal and Brazil. Recently, has been receiving considerable aid from China.	Relationships with South Africa and Western countries have become strained in recent years. Therefore, the nation has been seeking to strengthen its relationships with Libya, Malaysia, and China.	China is making remarkable headway into this nation, becoming its major trading partner. China is also preparing to aggressively provide aid for infrastructure building.

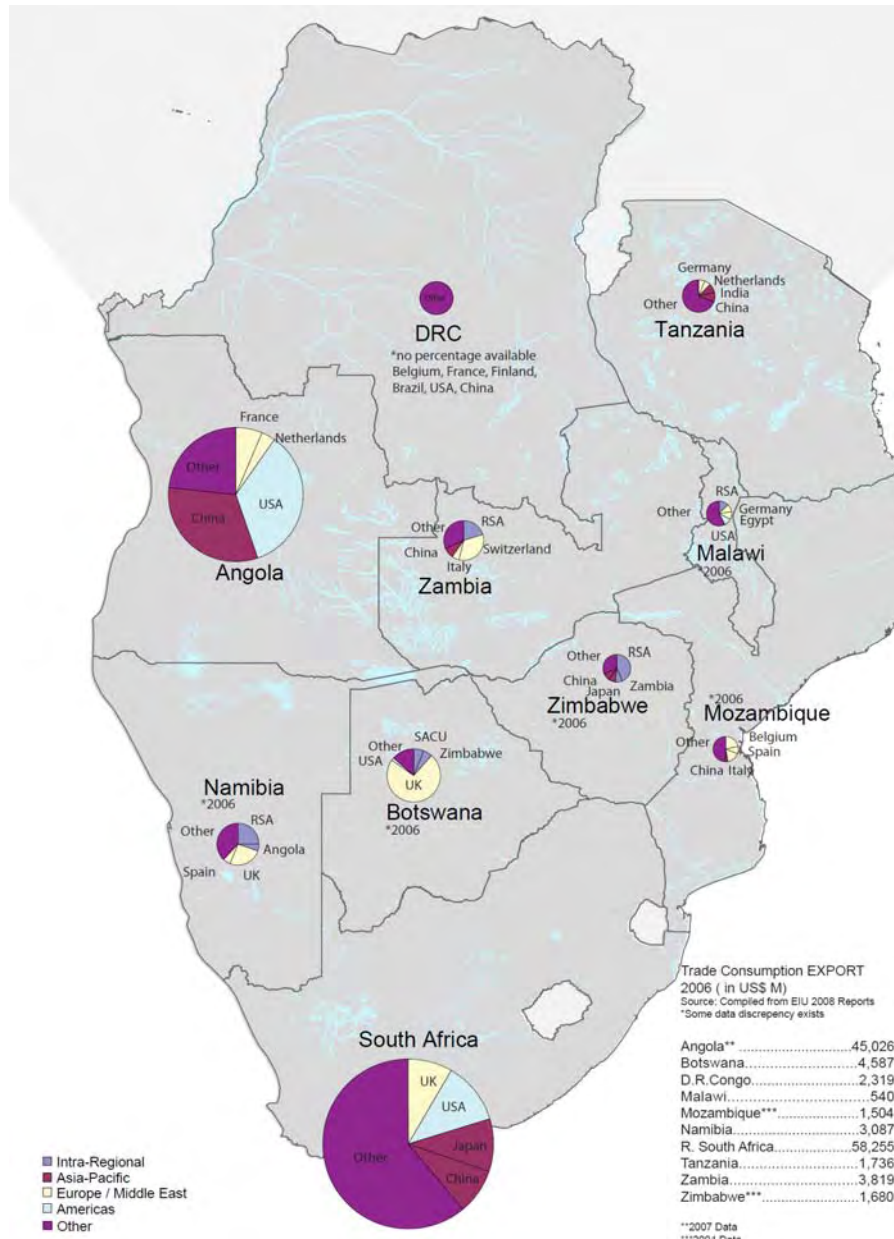
(3) Trade

Figures 2.1.10 and 2.1.11 show the major trading partners of the subject countries as a percentage of total trade value (both import and export) in USD million. As the figures indicate, all countries are engaged actively in intra-regional and international trade. South Africa is a major trade power (both in terms of imports and exports), and many of its neighboring countries rely heavily on imports from South Africa (Namibia, being the most reliant, with over 80% of its imports by value from South Africa). Further, in terms of exports, a majority of the subject countries have a relatively diversified trade composition except for Botswana and Zimbabwe, the exports of which are concentrated on single countries (the UK and South Africa, respectively).



Source: Prepared by the Study Team, compiled from Central Bureau of Statistics, IMF, EIU Reports 2008.

Figure 2.1.10 Major Trading Partners – Imports from (% of Total) 2007



Source: Prepared by the Study Team, compiled from Central Bureau of Statistics, IMF, EIU Reports 2008.

Figure 2.1.11 Major Trading Partners – Exports to (% of Total) 2007

(4) Investment Environment

In viewing the economic data presented above, it is important to consider the investment environment in each country, even though identifying the critical elements of the investment environment is a very extensive task as it involves identifying both (i) government policies for attracting and retaining investment, and (ii) investor perception of investment potential as compared with competing destinations. In an effort to develop standardized and comparable data on these aspects, the World Bank has undertaken Doing Business and Enterprises Surveys, which provide objective measures on business regulation and enforcement across many countries, and company-level data on experiences in developing countries and emerging markets. The material and data gathered and analyzed in these surveys therefore provides a snapshot view of investment policies and impacts together with enterprise-level responses and experience in most of the subject countries.

Table 2.1.7 summarizes subject country rankings at the national level with respect to specific elements of Doing Business – the lower a country's ranking, the easier it is assessed to do business in the country economy. Data from reference countries is also provided (Singapore leads, while the Central African Republic, CAR, ranked last.)

Table 2.1.7 Ease of Doing Business in the Subject Countries

Economy	Ease of Doing Business Rank	Starting a Business	Dealing with Construction Permits	Employing Workers	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Closing a Business
South Africa	34	67	52	102	90	2	10	23	148	85	76
Botswana	45	83	122	71	44	43	41	18	150	79	27
Namibia	66	123	38	43	134	15	73	97	151	41	55
Zambia	90	94	151	116	94	30	73	36	157	87	83
Tanzania	131	120	178	131	145	87	93	120	108	31	113
Malawi	132	128	163	92	101	87	73	24	172	142	130
Mozambique	135	96	159	156	151	127	41	98	136	129	136
Zimbabwe	159	145	178	142	84	113	119	131	167	78	156
Angola	169	165	123	178	173	87	57	139	171	181	144
DRC	182	154	146	174	157	167	154	157	165	172	152
Comparatives											
Singapore	1	4	2	1	16	4	2	5	1	13	2
CAR	183	159	147	144	138	135	132	179	181	171	183

Source: World Bank Doing Business Project (2010)

Figure 2.1.12 provides a graphical interpretation of the overall rankings presented in Table 2.1.7.

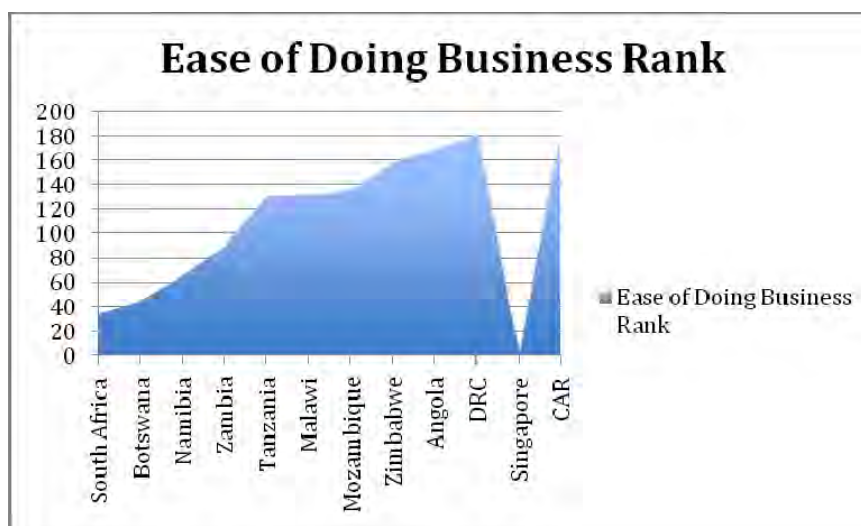


Figure 2.1.12 Ease of Doing Business in the Subject Countries

The subject countries occupy nearly the full range of rankings, with South Africa proving to be the most attractive business destination for investment and the DRC only trailed by the Central African Republic.

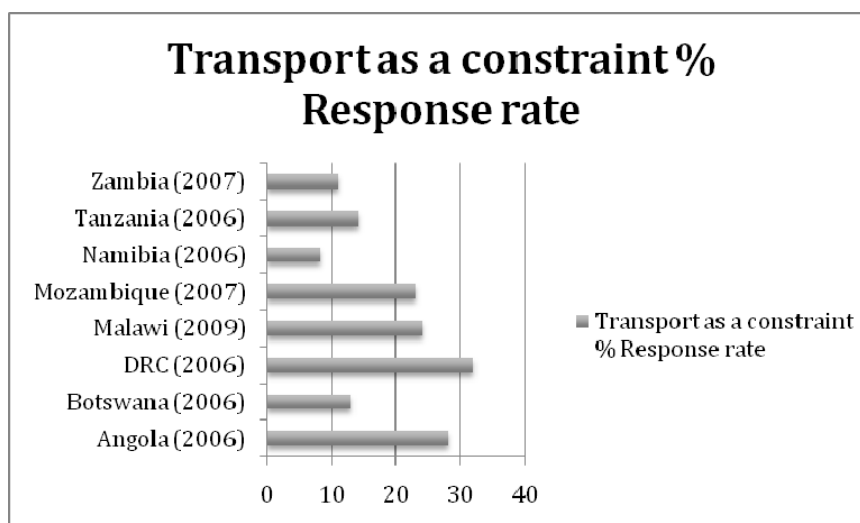
An alternative view of investment experience has been gathered by the World Bank's Enterprise Survey, which focuses on enterprise experience in selected economies. Table 2.1.8 below highlights some relevant findings from the survey in terms of post investment experience in the subject economies.

Table 2.1.8 Enterprise Experience in the Subject Countries

Country	Time Spent on Government Regulations (%)	Average Number of Visits or Meetings with Tax Officials	% of Firms Identifying Tax Rates as Major Constraint	% of Firms Identifying Tax Administration as Major Constraint	% of Firms identifying Transport as Major Constraint
<i>All Countries</i>	8.53	2.4	36.43	24.21	n.a.
<i>Sub-Saharan Africa</i>	6.76	2.98	37.99	26.2	n.a.
Angola (2006)	7.14	3.51	23	18.1	28
Botswana (2006)	4.96	1.31	24.59	9.99	13
DRC (2006)	6.31	8.63	52.4	39.83	32
Malawi (2009)	3.45	2.74	15.61	9.05	24
Mozambique (2007)	3.33	1.98	30.8	15.75	23
Namibia (2006)	2.86	0.36	20.4	4.43	8
South Africa (2007)	5.95	0.8	4.61	1.96	n.a
Tanzania (2006)	4.01	2.77	36.68	19.08	14
Zambia (2007)	4.58	1.97	25.51	8.64	11
Zimbabwe	n.a.	n.a.	n.a.	n.a.	n.a

Source: World Bank Enterprise Surveys – <http://www.enterprisesurveys.org/>

There is substantial similarity between the experiences reflected in Table 2.1.8 concerning post-investment experience and findings under the Doing Business Survey in Table 2.1.7. Particular attention is drawn to findings relating to the constraints imposed by transport (see the last column of Table 2.1.8, presented graphically in Figure 2.1.12), which reveal that enterprises view transport as a major constraint in the subject countries particularly are different among landlocked countries, i.e. Zambia and Botswana are better than DRC and Angola (Figure 2.1.13).



Note: Data was not available for South Africa and Zimbabwe

Figure 2.1.13 Percentage of Enterprises Citing Transport Availability as a Major Constraint on Business

2.2 Regional Integration and Cooperation

2.2.1 Movements for Regional Economic Integration

The main organizations involved in the regional integration and cooperation of regional transport infrastructure and trade facilitation in the targeted regions include the African Union (AU)/New Partnership for Africa's Development (NEPAD), Regional Economic Communities (RECs), and Corridor Coordinating Committees. Details are set out below.

AU/NEPAD: In 2001, NEPAD was established by the Organization of African Unity (OAU). The AU provided direction for NEPAD after the transition from the OAU to AU. NEPAD represents a new approach in which Africa takes initiative for the continent's development, as well as establishing a partnership with developed countries with a stated objective of promoting continental/regional integration. A key focus is the development of regional infrastructure including transport, water, energy and ICT, which is being coordinated through the RECs and governments of the various countries.

RECs: RECs are organizations for interregional cooperation and integration. Table 2.2.1 lists major RECs, including RECs covering the subject countries of this study.

Table 2.2.1 Regional Economic Communities in Southern Africa

Name of RECs	Member Countries	Remarks
COMESA: Common Market for Eastern and Southern African States	Eritrea, Djibouti, Ethiopia, Kenya, Uganda, Rwanda, Burundi, Mauritania, Malawi, Zambia, Zimbabwe, Swaziland, Libya, Angola, Sudan, Seychelles, Comoros, Madagascar, Egypt, Democratic Republic of Congo (DRC)	Established through reorganization of the Preferential Trade Area for Eastern and Southern Africa (PTA), which was established in 1981, COMESA is the largest economic community in Africa. Nine regional nations (Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritania, Sudan, Zambia, and Zimbabwe) established a free trade area in October 2000, Burundi and Rwanda joined in January 2004, and the Comoros joined in 2006. In 2008, COMESA agreed to an expanded free-trade zone including members of two other African trade blocs, the <u>East African Community</u> (EAC) and the <u>Southern Africa Development Community</u> (SADC). Lesotho, Mozambique, and Namibia seceded to avoid double membership with SADC. Angola suspended its membership. Libya joined in 2005.
EAC: East Africa Community	Kenya, Uganda, Tanzania, Rwanda, Burundi	The EAC was dissolved in 1977, but was reestablished in 1996. Prevention of double taxation, simultaneous announcement of budgets, exchange of currencies of members without US dollars used as an intermediary, and a common passport were among the measures implemented. A customs union was established by introducing common external tariffs in January 2005. The establishment of a political union is targeted for 2013, and the cooperation relationship is developed in foreign policies. Monetary union is a future goal. Membership for Burundi and Rwanda was approved (effective 1 July 2007). Both of them are members of ECCAS, too.
SADC: Southern African Development Community	Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia, Zimbabwe, South Africa, Mauritius, Democratic Republic of Congo), Madagascar, Seychelles	SADC was established by dissolving the Southern African Development Coordination Conference (SADCC) in a positive manner; this predecessor body was established in 1980 to reduce economic dependency on South Africa. South Africa joined in 1994. It was agreed in 1996 to establish a free trade area in the future. In 2008, SADC agreed to establish a free trade zone with the <u>East African Community</u> (EAC) and the <u>Common Market of Eastern and Southern Africa</u> (COMESA) with additional targets including a customs union by 2010, a common market by 2015, and a common currency by 2016. The Seychelles seceded in 2003, partially to avoid double membership with COMESA. Madagascar joined in 2005.
SACU: Southern African Customs Union	South Africa, Botswana, Lesotho, Namibia, Swaziland	Measures taken have included circulation of the South African rand, distribution of nontaxable regionally produced goods, free distribution of goods without quantity restrictions, and imposition of common external tariffs. Negotiation of a new treaty commenced when a democratic government was established in South Africa in 1994; it was signed in 2002 and became effective in July 2004. Since January 2008, a Free Trade Agreement (FTA) between SACU and the European Free Trade Association (EFTA) became effective.

Name of RECs	Member Countries	Remarks
ECCAS: Economic Community of Central African States	Burundi, Rwanda, Congo (Democratic), Angola, Sao Tome and Principe, Cameroon, Gabon, DRC, Central African Republic, Chad, Equatorial Guinea	Established in December 1981 by the Customs and Economic Union of Central Africa (UDEAC), the Economic Community of the Great Lakes Countries (CEPGL), and Sao Tome and Principe; Angola joined in 1999. It aims to secure peace, security, and stability, and establish an economic and monetary union, integrate culture and people, and establish a self-controlled financial system. Integration with the Economic and Monetary Community of Central Africa (CEMAC) was agreed with the EU in 2003.

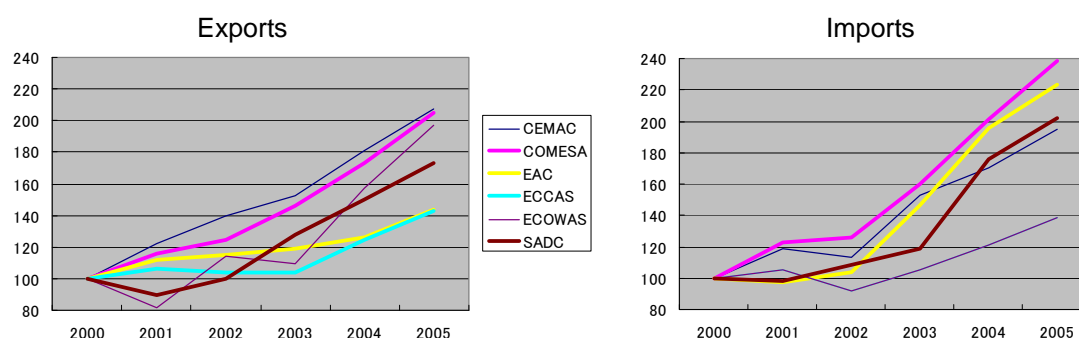
Source: Prepared by the Study Team, from Japan Center for International Finance, *Economic Blocs in the World*, 2006, and other sources.

In October 2000, COMESA, the largest regional economic community in Africa, established a free trade zone within nine countries of the region, and announced the establishment of a customs union in June 2009. The objective was the establishment of a monetary union and introduction of single currency by 2025, as well as liberalization of the transition of monetary, capital, and labor within the region. The EAC, which founded a customs union among Kenya, Uganda, and Tanzania in January 2005, expanded to include Burundi and Rwanda in 2007, and aims to establish a political union by 2013. SADC was established in 1992 by dissolving the Southern African Development Coordination Conference (SADCC) – originally established as a union to be less dependent on South Africa. In 1994, South Africa joined SADC, which established a free trade zone (SADC-FTA) in September 2008. Further aims include complete elimination of customs by 2012, and introduction of a common currency by 2018. In October 2008, COMESA, EAC, and SADC held the first summit for the formation of the single and free market (African Economic Community). There has been a concerted effort for the integration of the three since then.

SACU, which has its roots in the Southern African Customs Union agreement concluded under the British Commonwealth of Nations, was unilaterally dependent on the economy of South Africa for a long time even after revision of the agreement. However, after the new agreement, which was concluded in 2002, SACU is tending to strengthen its practical regional economic integration, such as trying to democratize the organization, as well as fostering establishment of common industrial policy. In addition, ECCAS, which was founded in 1983 as a part of Union Douaniere et Economique de l’Afrique Centrale (UDEAC, Economic Community of Central African States in English), had become dysfunctional virtually from the moment of its founding, due to the financial deterioration of and conflicts between/among the member states; however, it was revitalized in 1998, focusing on enhancement of security as well as aiming for economic currency unification.

Regarding regional transport infrastructure development, coordination between/among concerned countries is conducted by corridor coordinating committees founded based on an agreement between/among the corridor countries. The Walvis Bay Corridor Group (WBCG), which includes the Trans-Kalahari Corridor, the Trans-Caprivi Corridor, the Trans-Cunene Corridor, and the Trans-Oranje Corridor, and the Maputo Corridor Logistics Initiative (MCLI), are examples of major Corridor Coordinating Committees in Southern Africa. These corridor groups were established to engage in business activities increasing cargo for ports and corridors linked to it, and to engage in the facilitation of corridor and infrastructure development. In addition, various transport-related international associations such as the Association of Southern Africa National Road Agencies (ASANRA), the Federation of East and Southern African Road Transport Associations (FESARTA), and the Port Management Association of Eastern and Southern Africa (PMAESA) are coordinating various corridor developments for Southern Africa.

The major RECs have successfully increased intra-regional trade⁵ in recent years. Exports within COMESA and SADC, including the subject countries of this survey, have increased 70%–100% since 2001, while imports have increased 100%–140% during that period. For the Southern African countries, SADC trade accounts for about 20% of exports and more than 33% of imports, indicating that SADC countries are the region's second-largest trade partner, following the EU (40.7% of exports and 25.2% of imports). Figure 2.2.1 and Table 2.2.2 provide the details.



Source: Prepared by the Study Team, from UNECA, *Assessing Regional Integration in Africa, 2008*.

Figure 2.2.1 Intra-Regional Trade of Major RECs (with 2000 equal to 100)

**Table 2.2.2 Trading Ratio of Main Countries of RECs by Region
(Annual Average of 2000–2005, %)**

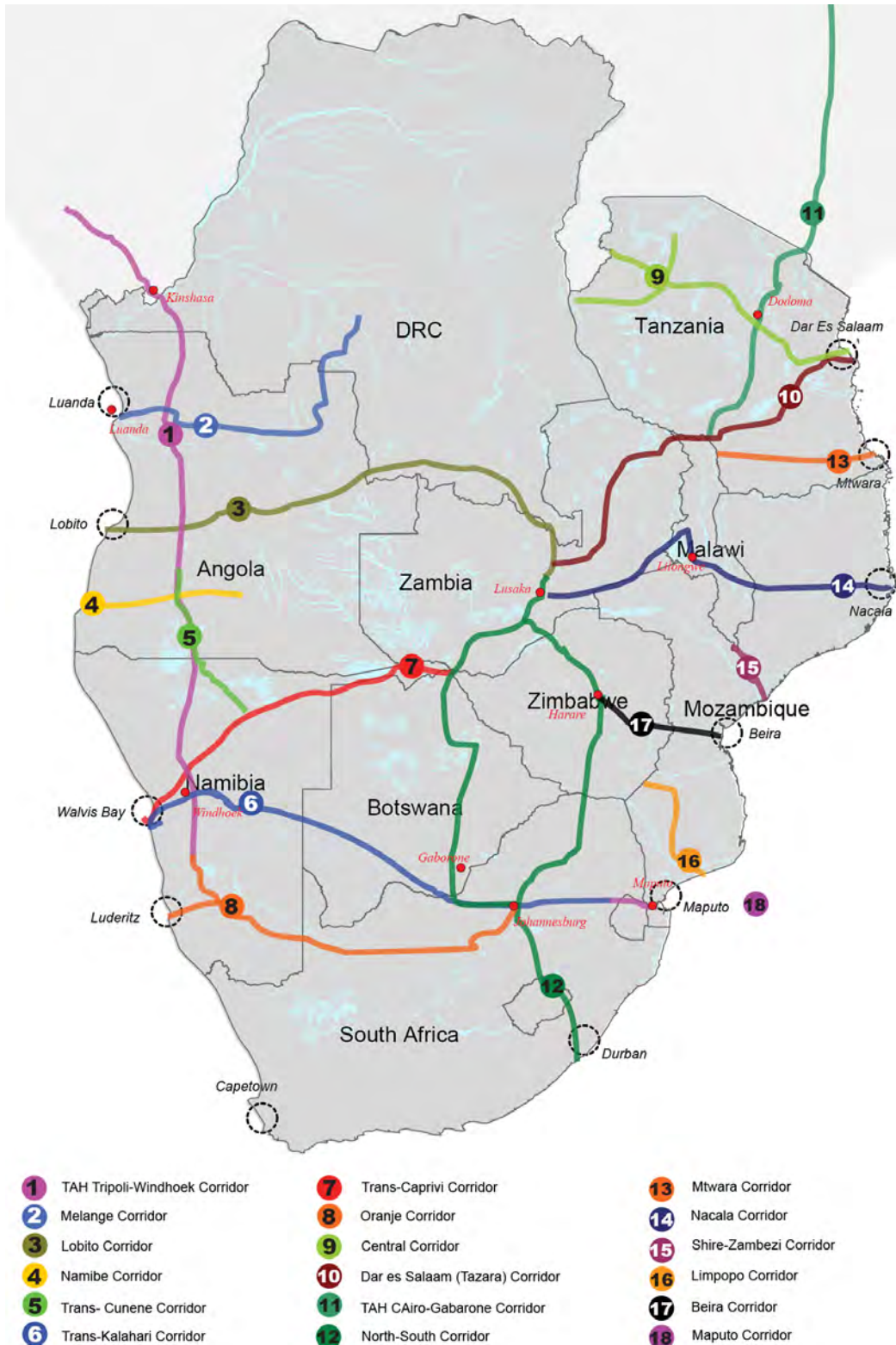
	Within RECs		Outside RECs, Africa		Others, global	
	Export	Import	Export	Export	Import	Export
CEMAC	0.9	5.2	2.7	8.9	96.4	85.9
COMESA	8.7	11.1	8.6	17.2	82.7	71.7
EAC	12.6	18.7	7.2	9.9	80.2	71.4
ECCAS	0.7	3.8	2.2	14.0	97.1	82.2
ECOWAS	13.9	15.8	5.5	5.2	80.6	79
SADC	19.9	33.1	2.3	2.6	77.8	64.3

Source: Prepared by the Study Team, from UNECA, *Assessing Regional Integration in Africa 2008*

2.2.2 Regional Transport Corridors and Their Roles

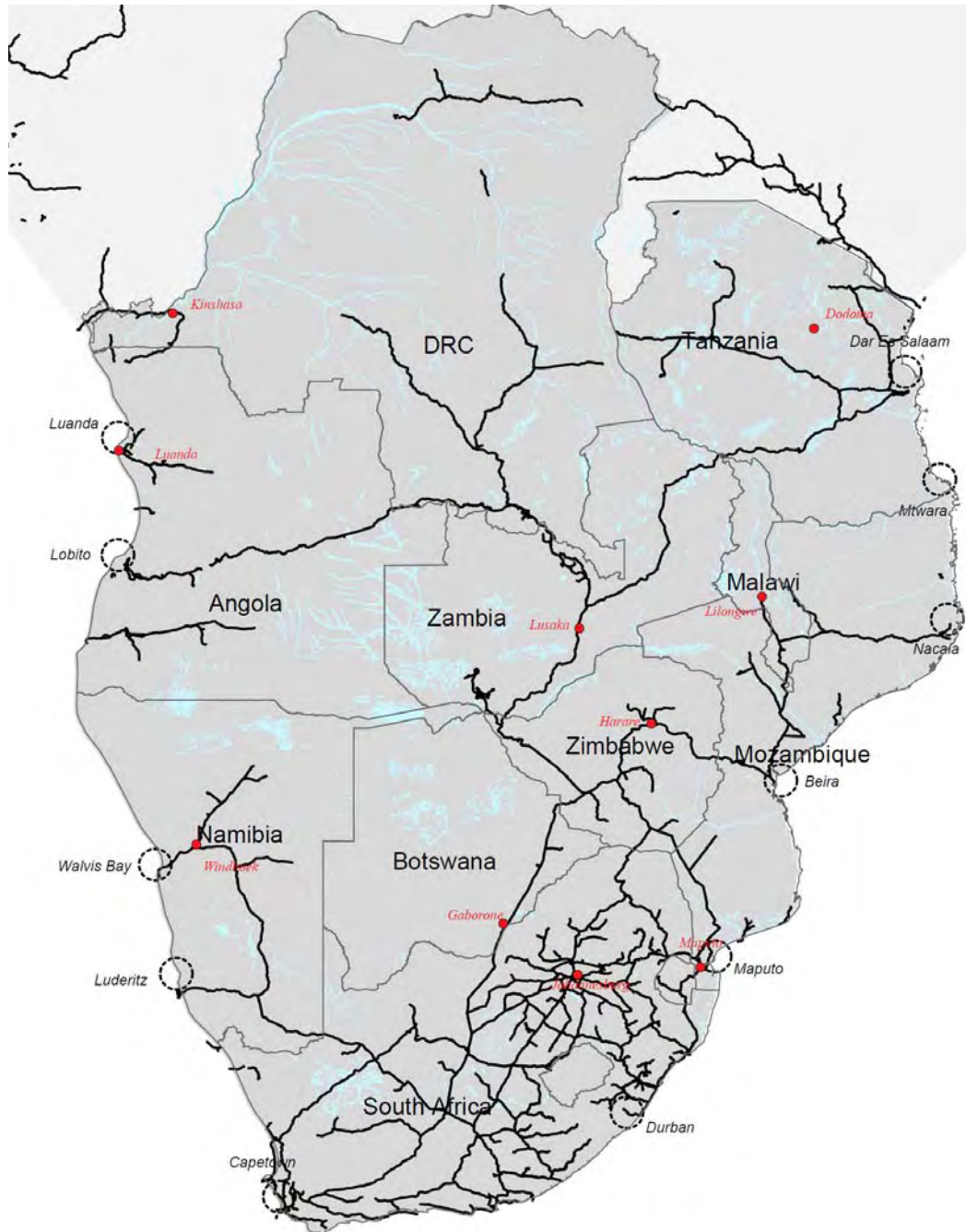
SADC has identified 18 major regional transport corridors in Southern Africa that play essential roles in the regional socio-economic developments of the 10 subject counties. The 18 corridors and railway network indicated in Figures 2.2.2 and 2.2.3 serve as the major framework for regional transport infrastructure development and are essential for the socio-economic development of Southern Africa.

⁵ In this report, trade between countries of the community is referred to as “intra-regional trade”, and trade to countries outside the community is referred to as “extra-regional trade”.



Source: Prepared by the Study Team, from SADC Corridors

Figure 2.2.2 Southern Africa Transport Corridors and Major Ports



Source: Prepared by the Study Team, from SADC Corridors

Figure 2.2.3 Southern Africa Rail Network and Major Ports

The previous sections indicated that the subject countries differ greatly in terms of economic conditions, which are key factors in the formulation of the development scenarios discussed in Chapter 3. While the economies of the DRC, Malawi, Mozambique, and Tanzania have a strong base in the agriculture sector, the economies of Botswana, Namibia, and South Africa are relatively strong in the service sector. However, it is important to stress the growth potential presented by the mining sector, which until now has been underutilized due to infrastructural constraints, both physical and institutional.

Angola, Botswana, and Zambia have a strong industry sector based economy in which industry contributes close to half of the GDP (except for Angola, where the industrial sector accounted for 86% of the economy in 2008). Within the industry sector, mining remains a major component, either directly or indirectly contributing to GDP growth. For example, in Botswana mining constituted over 40% of GDP (while industry as a whole contributed to 47% of GDP in 2008).⁶ In other countries, such as Zambia, the mining sector directly contributes only to a small amount of the GDP (at less than 5% of GDP in 2007)⁷; however, the manufacturing and service sectors feed off the mining sector, which indirectly accounts for a substantial portion of the GDP.

In many of the other countries in the region where services dominate GDP, mining still contributes to a large portion of exports, indicating that the servicing of the mining sector is a significant indirect contributor to economic growth (an example is South Africa where mining accounts for 5.4% of GDP but approximately 50% of exports).⁸

Angola, Botswana, and Zambia all benefit from the abundance in natural resources within their boundaries – Angola’s economy is dominated by the offshore oil industry, which accounts for 60% of GDP. Botswana is the world’s second-largest producer of diamonds in output volume after Australia and remains as the world’s largest in terms of output value. Similarly, Zambia’s Copper Belt has some of the largest copper and cobalt deposits in the world and remains among the top global producers.

However, it is important to note the essential role of transport infrastructure – both hard and soft – when developing a growth scenario that links the mining sector to regional economic growth. Zimbabwe, Botswana, and Zambia (and effectively the Eastern parts of DRC) are landlocked countries, and despite their natural resources, their lack of direct access to seaports is a major challenge when competing in the global market. The existing transport corridors have been established to address this challenge of linking the regional mining exports into the international market.

While the primary role of these corridors serving the mining sector remains, the corridors today function in two directions, since they also provide a conduit for flows of import goods destined to landlocked countries. Furthermore, the corridors are also utilized by the heavily agricultural countries of the DRC, Malawi, Mozambique, and Tanzania; serving an essential role in food security of the region.

In addition, the liquidity of products and services made possible by intra-regional transport facilitation is essential for the diversification of regional markets. A lesson from the current/recent global financial crisis sheds light on the importance of diversification even within the mining industry. As an example, copper in Zambia depreciated lost two-thirds of its value compared to the peak in mid-2008 due to the fluctuation of commodity prices and exchange

⁶ EIU 2008 Country Report of Botswana and WDI (WB 2008)

⁷ EIU 2008 Country Report of Zambia and IMF 2008 Zambia: Statistical Appendix

⁸ EIU 2008 Country Report of South Africa

rates, which profoundly affected its national economy.⁹ Intra-regional flows utilizing the established corridors have strengthened regional linkages, contributing to the increased sustainable growth and competitiveness of Southern Africa in the global market.

In the following chapter, growth scenarios for socio-economic development further elaborate the essential role of corridors in the realization of such scenarios.

⁹ International Monetary Fund *Zambia: Letter of Intent, Memorandum of Economic and Financial Policies, Technical Memorandum of Understanding*, April 8 2009, p. 3.

3 Growth Scenarios (Strategies)¹

3.1 Existing Development Strategies and Development Potentials

3.1.1 National Development Strategies

The medium- to long-term development strategies and/or plans of the subject countries (except for Zimbabwe²) are summarized below in alphabetical order:

Angola: Angola 2025 vision document presents long-term aspirations, and Estrategia de Combate a Pobreza or ECP (Poverty Reduction Strategy Paper) covering 2006–08 proposes to implement a public expenditure program focusing on ten priority areas including basic infrastructure and macroeconomic management.

Botswana: There is a Long Term Vision for Botswana – Vision 2016 and National Development Plan (NDP) 10 (2009–15). The Vision 2016 aims to increase the country’s per capita income to a level equivalent to USD 8,500 in real terms by 2016, maintaining an average annual growth rate of 6% in real per capita income. This high level of growth is pursued by NDP 10 mainly through the private sector. Vision 2016 also calls for improvement of the internal road and rail network and local transport services, which will facilitate the development of a number of sectors, particularly tourism, based on the recognition that the country is strategically located along the Trans-Kalahari Highway, the Maputo Corridor, and much of the rest of the Southern African road network.

DRC: The objective of the DRC’s long-term development vision (Vision 26/25) is to increase the country’s human development ranking to the level of the intermediate countries and move toward meeting the Millennium Development Goals. In the near term, the country’s Poverty Reduction and Growth Strategy Paper (PRGSP) seeks sustainable and effective improvement in living conditions by targeting the main causes of poverty. It recognizes that a qualitative and quantitative insufficiency of transport services, accentuated by the poor condition of country’s transport infrastructure, is one of the DRC’s main problems.

Malawi: The Malawi Growth and Development Strategy (MGDS) identifies poverty reduction through sustainable economic growth and infrastructure development as its overriding philosophy, and identifies nine priority areas, including: (a) agriculture and food security (1st priority); (b) transport infrastructure and Nsanje world inland port (4th priority); and (c) and energy, mining, and industrial development (9th priority). Particular emphasis is placed on reducing transport costs by connecting production areas to both domestic and export markets.

Mozambique: The Government of Mozambique’s Action Plan for the Reduction of Absolute Poverty for 2006–09 (PARPA II) prioritizes, under the economic development pillar, developing the North-South corridor as a focal point for national development through multisectoral and territorial links. Contribution to the development of economic and social activities along the Beira Corridor was also prioritized, stressing revitalization and improvement of maritime, river, and lake transport.

Namibia: To translate the long-term targets set out by Namibia’s Vision 2030, the Third National Development Plan (NDP3) 2007/08–2011/12 has nine priority areas (called Key Result

¹ There was some confusion about the word “scenarios” at the project seminar held in Lusaka in February 2010. It was clarified that the “scenarios” are not options; they are all necessary strategies for regional growth. See Appendix A, paragraph 20.

² It has been announced that the Government of Zimbabwe (Ministry of Economic Development) is formulating/has formulated a Zimbabwe Economic Development Strategy (ZEDS) 2008–12, although it is not yet available.

Area: KRAs) for increasing the country international competitiveness. Investment in the productive sectors including minerals and agriculture (livestock sector) are prioritized. Under the infrastructure sub-KRA (which belongs to the KRA for international competitiveness), NDP3 aims to establish and sustain highly developed and reliable infrastructure, which is a prerequisite for improved productivity, reduced production costs, and enhanced competitiveness. The transport subsector strategies include enhancing SADC inter-regional transport connectivity and links to other important destinations outside southern Africa.

South Africa: The Accelerated and Shared Growth Initiative – South Africa (ASGISA) aims to halve poverty and unemployment by 2014 by achieving a 5% average annual GDP growth rate between 2004 and 2014. The main elements of the ASGISA include an acceleration of public investment in infrastructure (ZAR 416 billion over three years), and a set of targeted sector investments (in business process outsourcing, tourism, chemicals, bio-fuels, metals and metallurgy, wood, pulp and paper, agriculture, the creative industries, and clothing and textiles). Key areas of government expenditure in infrastructure investment include provincial and local roads, bulk water infrastructure and water supply networks, and energy distribution.

Tanzania: The National Strategy for Growth and Reduction of Poverty (NSGRP) calls for wider, longer-term sectoral or national outcomes as specified in national policies such as the Tanzania Development Vision 2025. The NSGRP focuses on infrastructure development, as well as other aims. Budget resources in the medium term are allocated to prioritized special projects in the areas of infrastructure development, agriculture, water, energy, education, livestock, health, and higher education. Its cluster strategies focus on infrastructure development including modernization and expansion of railways, as well as modernization and expansion of trunk roads, ports, and airports, and transport services. Spatial development and development corridor planning approaches are to be employed, e.g., through the now ongoing Mtwara Development Corridor and Central Development Corridor initiatives under PPP arrangements.

Zambia: The Fifth National Development Plan 2006–2010 (FNDP), as an important step towards realization of the Vision 2030, has the strategic focus of “Economic Infrastructure and Human Resources Development”. The expenditure focus of the FNDP is on infrastructure, agricultural development, education, health, water and sanitation, and public order and safety. Priority in infrastructure development is put on the road, energy supply and water resource development such as irrigation.

As outlined above, the development plans of most of the countries prioritizes transport infrastructure development, with some countries mentioning the development of particular corridors. In addition, several countries including Malawi, Namibia, South Africa, Tanzania, and Zambia preferentially allocate financial resources or investment to agricultural sector development.

A more detailed description of the medium- to long-term development strategies and/or plans of the subject countries is presented in Appendix B.1.

3.1.2 Development Potentials under Current Economic Conditions

In this section, development potentials of the Southern African Region are examined. Regional development can be achieved through comprehensive efforts efficiently utilizing natural resources unevenly distributed across the region, eliminating various constraints on the production and distribution of goods and services by local and foreign entrepreneurs, and coordinating the development policies and strategies of individual countries. Such a comprehensive development approach for the region can be found in Corridor Development or Spatial Development Initiatives, which have been incorporated in the development strategies of

some countries in the region as set out in the preceding subsection. Accordingly, it is worthwhile to understand the character of the model, examine its validity under current situation, and try to apply it to the future growth scenarios of the region with necessary modification.

(1) Characteristics of the SDI/Development Corridor Model³

In the mid-1990s, regional development programs called Spatial Development Initiatives (SDIs) were launched by the Government of South Africa within its territory. These were subsequently expanded to bilateral Regional Spatial Development Initiative Programmes (RSDIP) among South Africa and its neighboring countries. SDIs that did not include South Africa were also launched, evolving into NEPAD SDIs across Africa.

The methodology of SDIs/Development Corridors includes the following components⁴:

- attracting investments for economic growth with mining and mineral resource processing at its core, and with necessary infrastructure (especially transport and energy) for autonomous economic growth constructed;
- inducing secondary investments in related sectors (e.g., agriculture, forestry, tourism, manufacturing) to transform a simple economy driven by the export of natural resources into a diversified industrial structure; and
- eliminating policies, regulatory, bureaucratic, or institutional constraints to investment.

In order to achieve these aims, the following measures are necessary: (i) political commitment by the countries involved, (ii) appropriate organizational decisions and frameworks, (iii) participation by the private sector, and (iv) appropriate technical training.

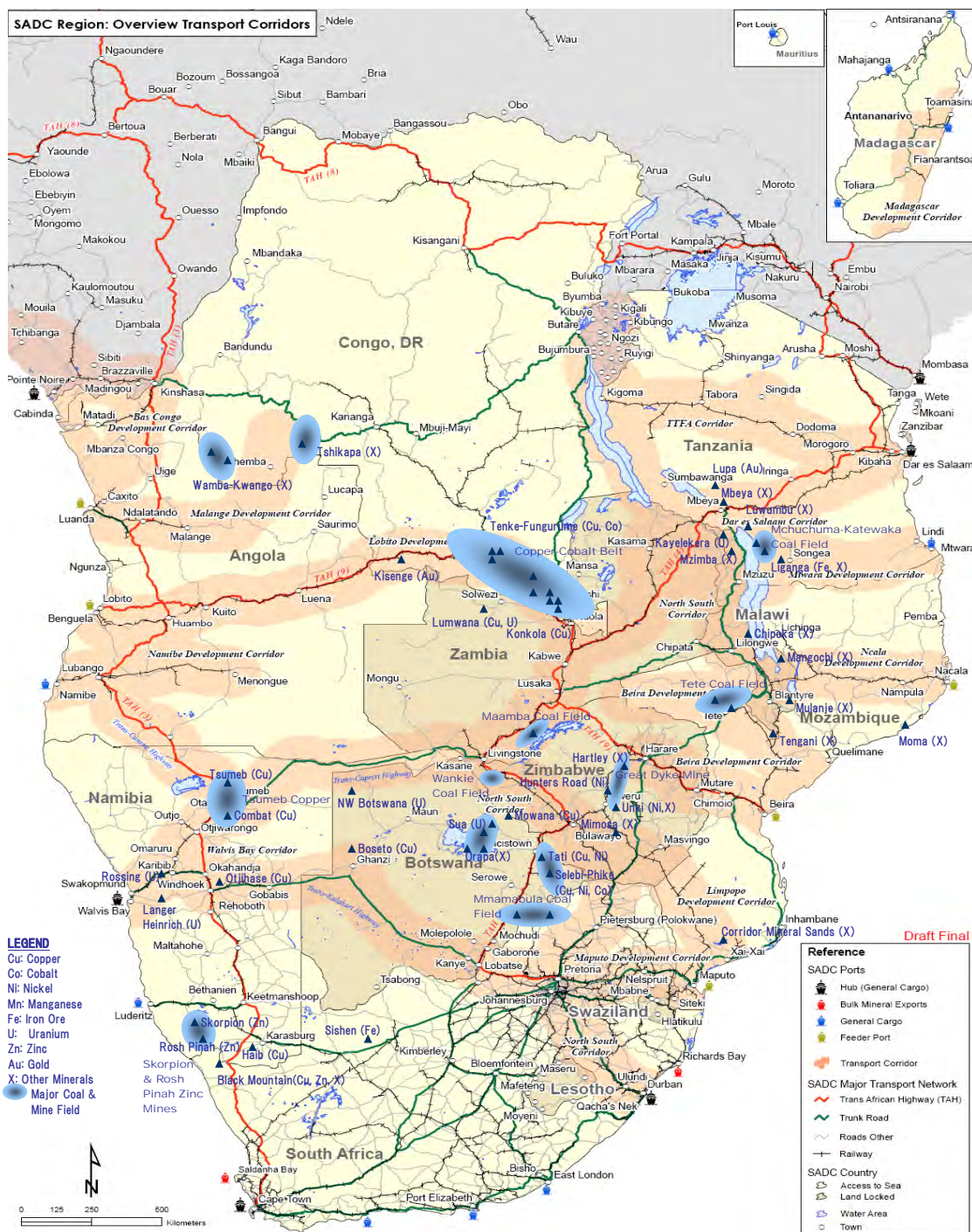
This SDI/Development Corridor methodology contains quite important assumptions that affect growth scenarios of the region. First, it presupposes that mineral resource development and processing is the core of economic growth. Second, it assumes that infrastructure development (especially transport and energy) is indispensable for autonomous economic growth. Third, it assumes that transformation of a simple economy driven by export of natural resources to a diversified industrial structure is pursued. These three assumptions lead to the following questions that should be considered in preparing growth scenarios:

- On the first assumption: Will mineral resource development (and processing) function as the core of economic growth, attracting investment? Are there any alternatives for engine of growth?
- On the second assumption: Who will provide the (funding for) infrastructure? Are any changes in the physical distribution patterns anticipated relying on the main providers of infrastructure?
- On the third assumption: What diversified industrial structure is envisaged for the region? What conditions are needed to realize it?

The existing resources in Southern Africa and SDI/Development Corridors are presented in Figure 3.1.1.

³ Development Corridors and SDI programs share characteristics and are often considered almost the same. However, the former tends to be used more as a medium-term regional development initiative, while the latter tends to be used as a methodology to fast-track the development of plans. Regional SDI Programme Support Unit & MINTEK, *An Indicative Assessment to Determine Prospects for a NEPAD Spatial Development Programme*, March 2006.

⁴ See the source cited in the previous footnote.



Base map: SADC (2009) SADC TRANSPORT CORRIDORS: Abridged status and progress report.

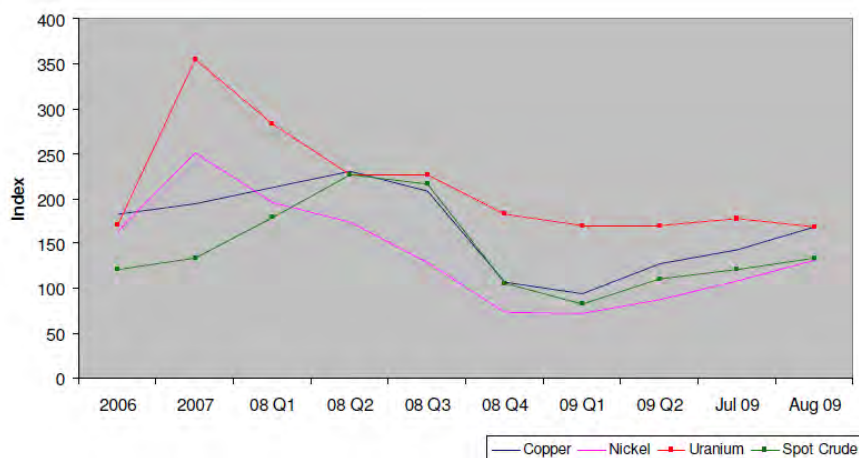
Figure 3.1.1 Existing Resources in Southern Africa and SDI/Development Corridors

(2) The Global Economic Crisis and Its Impact in Southern Africa

The global economic crisis since September 2009 has had a substantial impact in Southern Africa. Considering the critical importance of investment in mineral and other resource development in the SDI/Development Corridor model, the impact of the crisis need to be scrutinized. Specifically, the impact of the global economic crisis in the region as outlined by SADC is presented below:

- Decline of cross-border money flows;
- Decline in exports centering around the mining sector (falling prices for commodities including copper, nickel, uranium, and oil)⁵;
- Fall of agricultural commodity prices⁶; and
- With the decrease in the price of crude oil and foodstuffs, the trade balance has improved, inflation has been curbed, and agricultural production costs have declined.⁷

Although commodity prices have started to recover, SADC export volumes were estimated to decline by 1.8% in 2009, compared to 5.1% growth in 2008; they are forecast to increase by 4.4% in 2010. The growth of imports in 2009 was also estimated to decline by 0.4%, compared to 10.1% growth in the previous year; they are forecast to increase by 4.1% in 2010. The current account balance is deteriorating in most countries. The average current account deficits of SADC countries is estimated to reach 10.5% of GDP in 2009, and further increase to 12.5% in 2010. As the result, the rate of real GDP growth was estimated as only 0.4% in 2009, with a growth rate of 4.1% forecast for 2010. For reference, Figure 3.1.2 presents trends in IMF commodity prices, while Figure 3.1.3 shows results and forecasts of real GDP growth.



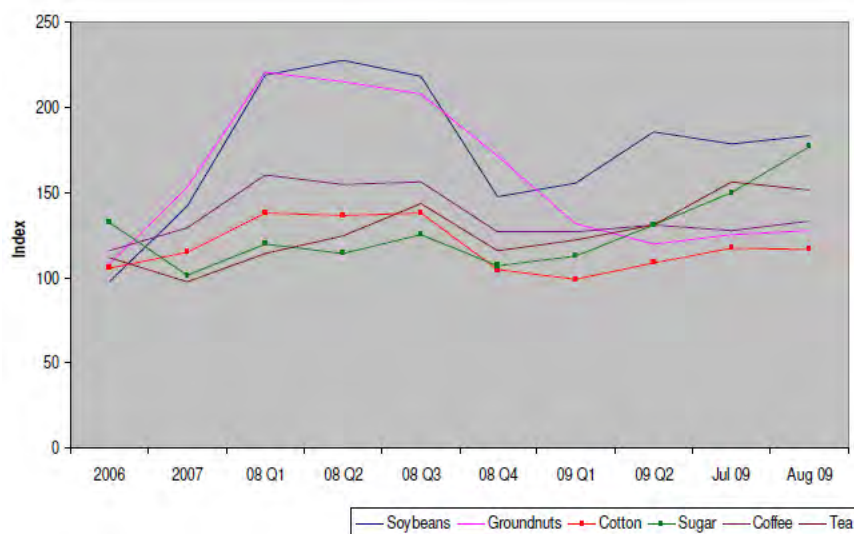
Source: SADC (September 2009).

Figure 3.1.2 Trends of IMF Commodity Price Indices

⁵ Most commodity prices except that for uranium have increased since the first quarter of 2009.

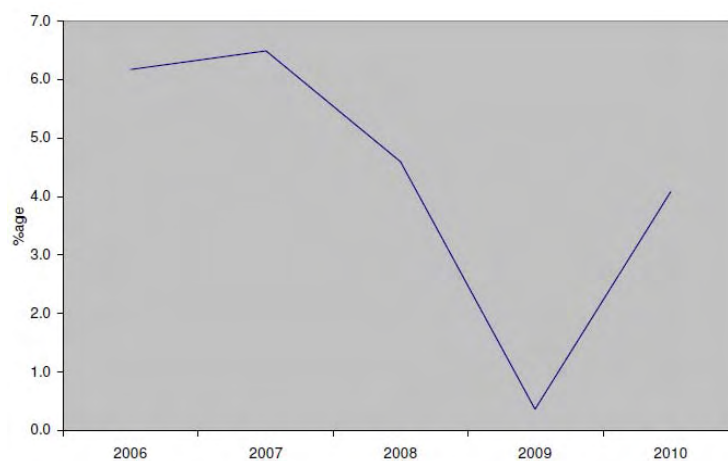
⁶ The prices of soybeans, tea, and sugar have been recovering since the fourth quarter of 2008, the price of coffee remains stable, the price of groundnuts has been gradually recovering since the second quarter of 2009, and cotton prices have also gradually started increasing since the first quarter of 2009.

⁷ SADC, *Update on the Impact of the Global Economic Crisis on SADC*, April 2009 and September 2009.



Source: SADC (September 2009).

Figure 3.1.2 Trends of IMF Commodity Price Indices (continued)



Source: SADC (September 2009).

Figure 3.1.3 Results and Forecasts of Real GDP Growth

Impact on the South African economy, which is the “powerhouse” of the Southern African region’s economy, is outlined as follows⁸:

- Damage to mining companies (e.g., suspension of operations, cancellation of new mine development, a layoff plan for nearly 13,000 workers). PGM and rare metal companies with Japanese investment also have had drastically reduced outputs. However, the demand for gold has increased;
- Decline in automobile production;
- Decline in real estate sales;
- Reductions and delays in infrastructure investments (e.g., electrical power, railways); and
- Decline of the South African rand (ZAR), with overseas investors pulling out.

⁸ Yoshiyuki Kita, “South Africa: Political and Economic Trends in Mining – Rare Metals and PGM Supply after the Economic Crisis”, JOGMEC *Metal Resources Report*, March 2009.

Real GDP growth rate on a quarterly base started to decline in the third quarter of 2008, then hit bottom in the first quarter of 2009 at -6.4%. It was -3.0% in the second quarter of 2009 and has risen since then. Various financial institutions in South Africa forecast 1.9% to 3.0% growth in 2010, and 3.2% to 4.0% growth in 2011, although growth rates of -0.3% to -2.1% were estimated in 2009 (only the National Treasury of South Africa had forecast 1.2% growth for 2009).⁹

The following measures have been proposed in regard to these impacts from SADC and others¹⁰:

- Short-term: lower interest rates, expanded public investment, lower exchange rates, and increased financial support from international development partners including multinational development banks; and
- Medium-term: diversification of industrial structure (e.g., agro-industry, aquaculture, small-scale mineral resources processing, tourism), mobilization of domestic funds (enhancement of banking systems and capital market, microfinance, a broadened taxation base), improvement of rigid labor market, reforms in the education system.

(3) Validity of SDI/Development Corridor Model after the Financial Crisis

Considering the influence of the global economic crisis, and the measures to deal with it, the validity of SDI/Development Corridor Model may be examined considering each of the main elements of the model.

Direct Investment

Foreign direct investment (FDI) in Africa in 2008 exceeded that in the previous year and reached a record level of USD 88 billion.¹¹ Compared with FDI inflows to Asia (including South, East and Southeast Asia), annual FDI inflows to Africa in recent years have only been 1/3 to 1/4 of those in Asia, i.e., the same level of inflows as Asia received in the mid-1990s. However, growth rates in FDI to Africa have substantially exceeded those of Asia. The annual average growth rate of FDI inflows to Africa from 2004 to 2008 was 51.3%, whereas it was 19.0% in Asia. Breaking it down to subregions, West and Southern Africa respectively had annual average growth rates of 74.4% and 66.1%, respectively, followed by 65.0% in South Asia.

Cross-border merger and acquisition (M&A) activity by Europe and Asian multinational corporations were the main elements, to which investment in the manufacturing sector greatly contributed. FDI inflows to Southern Africa in 2008 totaled USD 27 billion, which far exceeded USD 19 billion in 2007, and accounted for 31% of the inflow to Africa. The main recipient countries were Angola and South Africa. The main investment to South Africa was further capital payments by the state-run Industrial and Commercial Bank of China (ICBC) for a 20% stake in Standard Bank, and Angola's high FDI inflows were due to an expansion of investment in oil exploration and exploitation activities.

Cross-border M&A in Africa has been characterized by investment in manufacturing, as mentioned, especially in the nonmetallic minerals field; also, there have been active FDI inflows in the finance sector. Although the net sales in the mining industry (including oil) of the

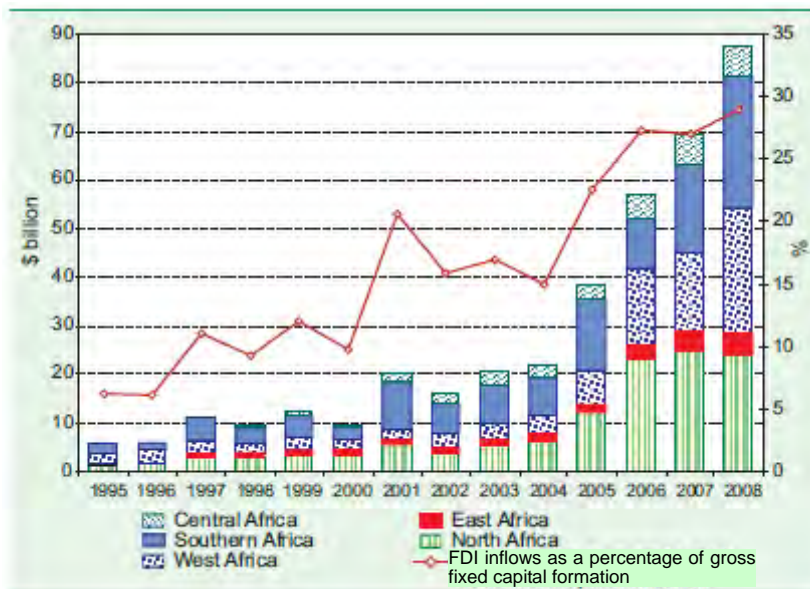
⁹ Based on the information provided by the JETRO Johannesburg Center.

¹⁰ SADC (April 2009); World Economic Forum, *Africa Competitiveness Report 2009*, May 2009.

¹¹ The following is based on UNCTAD, *World Investment Report 2009*. In this report, Southern Africa consists of following the countries: Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe.

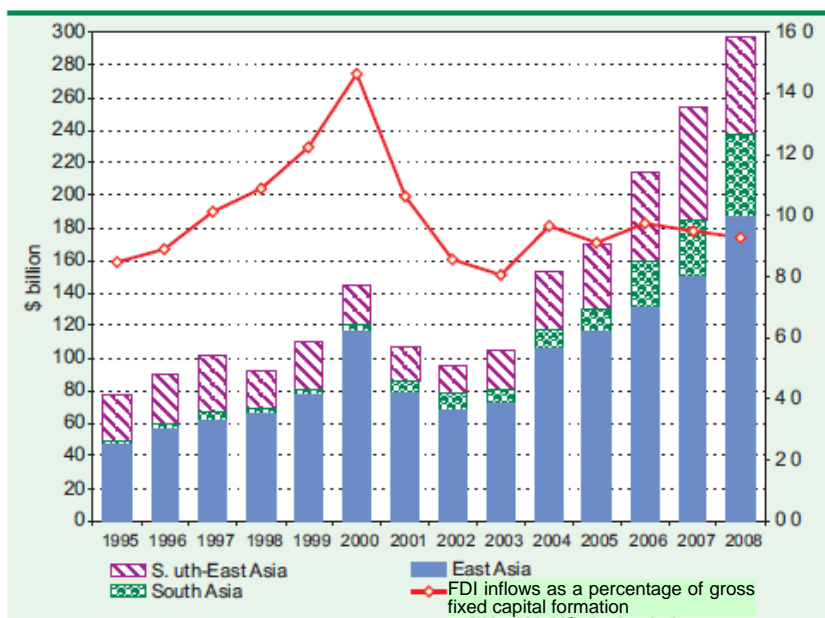
acquired companies through cross-border M&A in Africa were negative in 2008, they began to recover in the first half of 2009.

Figures 3.1.4 and 3.1.5 summarize these trends, for Africa and Asia respectively.



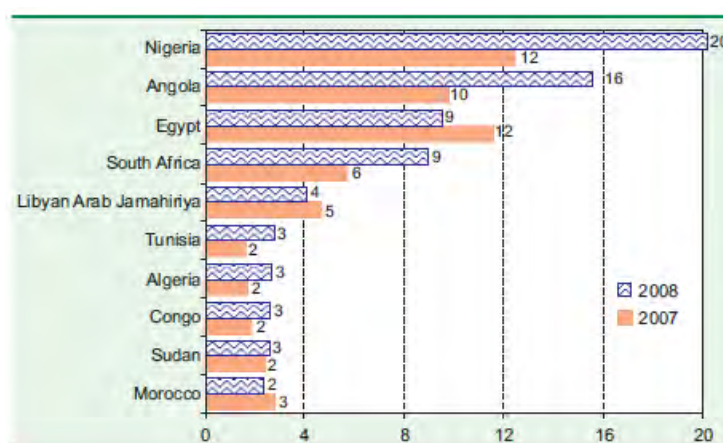
Source: United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2009*.

Figure 3.1.4 FDI Inflows to Africa (by value and as a %age of gross fixed capital formation (%), 1995–2008)



Source: UNCTAD, *World Investment Report 2009*.

Figure 3.1.5 FDI Inflows to South, East, and Southeast Asia (by value and as a percentage of gross fixed capital formation, 1995–2008)



Source: UNCTAD, *World Investment Report 2009*.

Figure 3.1.6 Top 10 Recipients of FDI Inflows in Africa (2007–2008 billions of US dollars)

Table 3.1.1 Average Annual Growth Rate of FDI Inflows in Africa and Asia (2004–2008, %)

Region/Sub-region	Growth Rate
Africa	51.3
North Africa	44.5
West Africa	74.4
Central Africa	27.2
East Africa	36.6
Southern Africa	66.1
South, East and South-East Asia	19.0
East Asia	15.3
South Asia	65.0
Southeast Asia	16.0

Source: Prepared from UNCTAD, *World Investment Report (each year)*.

Table 3.1.2 Value of Cross-Border M&A Sales and Purchases by Sector/Industry (2007–2009^a millions of dollars)

Sector/industry	Net sales of companies in Africa ^b			Net purchases by African companies worldwide ^c		
	2007	2008	2009 ^a	2007	2008	2009 ^a
Total	7 906	20 901	3 332	9 914	8 214	186
Primary	3 837	- 2 055	2 430	5 328	- 261	- 36
Mining, quarrying & petroleum	3 837	- 2 055	2 430	5 328	- 261	- 36
Secondary	1 367	15 639	393	810	1 649	82
Wood and wood products	- 1 438	-	-	351	1 082	-
Non-metallic mineral products	831	15 469	145	466	339	-
Metals and metal products	250	104	248	55	7	44
Services	2 702	7 316	509	3 776	6 827	140
Trade	- 396	32	-	- 267	299	-
Transport, storage and communications	335	1 665	644	250	- 156	-
Finance	2 595	5 613	6	1 099	7 168	179
Business services	91	- 157	- 77	122	12	- 39
Health and social services	-	152	5	2 363	282	-

Notes: The data cover only those deals involving an acquisition of an equity stake of more than 10%.

a) For 2009, January–June only; b) Net sales in the industry of the acquired company; c) Net purchases by the industry of the acquiring company.

Source: UNCTAD, *World Investment Report 2009*.

Although reduction of 2008 in direct investment in the mining sector has had an impact on the “real economy”, due to suspension of operations, cancellation of new mine development, and a decrease in exports (with a time lag), the signs of recovery have been remarkable. The Government of Zambia government is conducting contract negotiations on copper mining with major Australian and Canadian mining companies, and also announced untapped mineral deposits, including rare metals, oil, and gas. Mining of uranium and bauxite have commenced in Malawi.¹² Newly emerging economies, such as China and Brazil, have also entered the market, as indicated in Table 3.1.3). Therefore, the methodology underlying the SDI/development corridor model of attracting investment in mining and mineral resources processing as a core of economic growth is still effective.

Table 3.1.3 Examples of Investment in the Mining Sector from Newly Emerging Economies

Country	Investing Company	Outline of Investment
Zambia	China Nonferrous Metal Mining Group Co (CNMC)	Acquired 80% shares of Luanshya copper mine (October 2009)
Zambia	China Nonferrous Metal Mining Group Co (CNMC)	Started operation of Chambishi copper smelter (Oct. 2009), planning to invest about USD 900 million by 2010
Zambia	Jinchuan Group (China)	Acquired 51% shares of Munali nickel mine (August 2009)
Zambia	Vale (Brazil)	Plans to invest USD 50 million in 2010 to Konkola North copper project, which is a 50:50 joint venture V project with African Rainbow Minerals (South Africa) and will start production in 2013
Mozambique	Vale (Brazil)	Plans to invest USD 595 million in the Moatize coal project in 2010, and signed an MOU with the Government of Mozambique on rail/transport infrastructure development in the Northern area in expectation of a planned Moatize II project.
Namibia	East China Mineral Exploration and Development Bureau	Acquired 50.1% shares of Weatherly International PLC (London), which owns the Otjase, Tsume, and Kombat copper mines, and Tsuemeb copper smelter, which is the only copper smelter in Namibia. (September 2009)

Source: Compiled from JOGMEC News Flash.

On the other hand, FDI in the agricultural sector (including forestry and fisheries) in Africa is generally still limited compared to that in other sectors. Table 3.1.4 shows that there were 32 M&A investments in agriculture (including hunting, forestry, and fisheries) in Africa from 1987 to 2008, consisting of only 1.3% of total FDI, while the investment in food, beverages, and tobacco production accounted for 6.5%. This tendency is more obvious when focused on African investors (0.8% in agriculture and 5.2% in food manufacturing). An explanatory factor may be the sensitivity surrounding land property rights. Since many Africans consider land to be a cultural asset, they may not like to see it in the hands of foreign investors, including those from other African countries.¹³

¹² Based on interviews with the Governments of Zambia and Malawi [Ministry of Mines and Minerals Development (Zambia) and Ministry of Economic Planning and Development (Malawi)].

¹³ UNCTAD, *Economic Development in Africa Report 2009: Strengthening Regional Economic Integration for Africa's Development*.

Table 3.1.4 Cross-Border M&A Activity (1987–2008) and Greenfield Investment Projects (2003–2007) in Africa, by Sector/Industry of the Seller and by Investing Region (Number of deals)

	M&As in Africa by acquiring region, 1987-2008				Greenfield investment in Africa by source region, 2003-2007			
	World	(%)	Africa	(%)	World	(%)	Africa	(%)
Total	2,456	(100.0)	773	(100.0)	1,939	(100.0)	149	(100.0)
<i>Primary</i>	638	(26.0)	164	(21.2)	285	(14.7)	11	(7.4)
Agriculture, hunting, forestry and fishing	32	(1.3)	6	(0.8)	285	(14.7)	11	(7.4)
Mining, quarrying and petroleum	606	(24.7)	158	(20.4)				
<i>Manufacturing</i>	716	(29.2)	216	(27.9)	853	(44.0)	57	(38.3)
Food, beverages and tobacco	159	(6.5)	40	(5.2)	110	(5.7)	11	(7.4)
<i>Services</i>	1,102	(44.9)	393	(50.8)	801	(41.3)	81	(54.4)

Source: UNCTAD, *Economic Development in Africa Report 2009: Strengthening Regional Economic Integration for Africa's Development*.

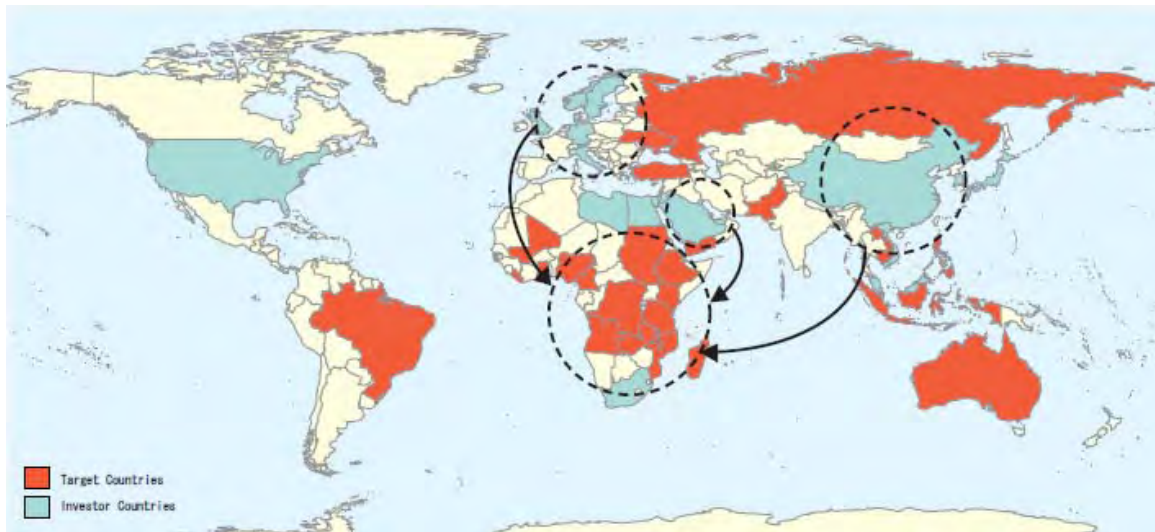
However, a recent study conducted jointly by the Food and Agricultural Organization (FAO), the International Fund for Agricultural Development (IFAD), and the International Institute for Environment and Development (IIED) presents the possibility of increase in investment in the African agricultural sector. Through qualitative case studies and quantitative research in several Sub-Saharan African countries (i.e., Mali, Ghana, Sudan, Ethiopia, Tanzania, Mozambique, and Madagascar), it identifies a process of large-scale land acquisitions emerging on the continent.¹⁴ The study found:

- (i) Significant levels of activity, with quantitative inventories documenting an overall total of 2,492,684 ha of approved land allocations since 2004 in the five study countries, excluding allocations below 1,000 ha;
- (ii) Rising land-based investment over the period from 2004 to 2009, with an upward trend in both project numbers and allocated land area and anticipated growth in investment levels in the future;
- (iii) Dominance of the private sector in land deals, although often with strong financial and other support from government, and significant levels of government-owned investments; and
- (iv) Dominance of foreign investment, although domestic investors are also playing a major role in land acquisitions – a phenomenon that has received far less international attention so far.

The study found several factors underpinning these land acquisitions. One was food security concerns, particularly in investor countries, which are a key driver of government-backed investment. In addition, global demand for biofuels and other non-food agricultural commodities, expectations of rising rates of return in agriculture and land values, and policy measures in home and host countries were found to be key factors driving new patterns of land investment. In addition, the abundance of land in Africa was found to be quite attractive to outside investors.¹⁵ Figures 3.1.7 and 3.1.8 illustrate the investor and target regions in overseas land investment for agriculture production in the world and in Africa.

¹⁴ Lorenzo Cotula, Sonja Vermeulen, Rebeca Leonard, and James Keely, *Land Grab or Development Opportunity? Agricultural Investment and International Land Deals in Africa*, FAO, IIED and IFAD, 2009.

¹⁵ See the source in the previous footnote. It also mentions that about half of the cultivable land reserves in the world are in just seven countries: Angola and the DRC, plus Argentina, Bolivia, Colombia, and Sudan.



Source: UNCTAD (*World Investment Report 2009*) and NHK Japan

Figure 3.1.7 Investor and Target Regions for Overseas Land Investment for Agricultural Production in the World 2006–09



Source: Same as above

Figure 3.1.8 Investor and Target Relations in Overseas Land Investment for Agricultural Production in Africa 2006–2009

In addition, in some countries in Southern Africa (Tanzania, Mozambique, Malawi, Namibia, and Zambia), direct investment in the agricultural sector has a high share of FDI inflow or stock (Table 3.1.5). These countries have a comparatively a high share of agriculture in GDP and significant value added in the sector (Tables 3.1.6), availability of agricultural land for foreign investors, and national policies promoting investment in agriculture. For these reasons, investments are being made in cash crops, such as coffee, tobacco, sugarcane, and bananas.¹⁶ Considering the trend of increased global investment in the agricultural sector, the countries mentioned may be expected to further benefit from their comparative and absolute advantages.

**Table 3.1.5 Inward FDI in Agriculture, Forestry and Fishing
(Flows and Stock, Various Years, Billions of Dollars and %)**

Host region/economy	Millions of dollars				Percentage share in total			
	Flows		Stock		Flows		Stock	
	2002–2004	2005–2007	2002 ^b	2007 ^c	2002–2004	2005–2007	2002 ^b	2007 ^c
World	2 286.9	3 327.8	18 969.5	32 010.0	0.4	0.2	0.3	0.2
Developed economies	156.5	38.9	6 694.7	11 830.3	0.0	0.0	0.1	0.1
Developing economies	2 040.8	2 980.0	11 978.2	17 997.1	1.1	0.8	0.8	0.5
Africa								
Egypt	22.2	29.5	..	..	5.4	0.2	..	..
Ethiopia	0.0	6.2	..	..	0.0	4.0	..	..
Gambia	..	..	1.7	1.3	..	..	3.0	2.8
Madagascar	..	6.5	7.5	7.5	..	1.7	4.5	0.8
Malawi	..	..	47.6	64.5	..	..	13.3	13.1
Mauritius	5.9	0.7	..	..	10.5	0.3	..	..
Morocco	8.1	2.8	119.7	179.0	0.6	0.1	1.0	0.5
Mozambique	20.8	21.5	..	..	6.7	9.4	..	..
Namibia	..	..	59.0	90.3	..	..	3.2	3.2
South Africa	..	..	75.8	126.0	..	..	0.3	0.1
Swaziland	..	..	94.1	143.9	..	..	15.4	16.2
Tunisia	6.2	7.4	..	..	0.9	0.4	..	..
Uganda	..	..	0.4	5.2	..	..	0.1	0.7
United Republic of Tanzania	40.5	40.5	210.7	252.4	9.4	9.4	6.2	6.7
Zambia	..	..	57.5	126.5	..	..	6.8	11.7
South-East Europe and the CIS	89.5	308.9	296.5	2 182.5	0.4	0.7	0.4	0.7

Source: UNCTAD, *World Investment Report 2009*.

**Table 3.1.6 GDP Share of the Agricultural Sector in Southern African Countries
(%, value added, average 2002–2007)**

Country	Value Added
Angola	8.3
Botswana	2.2
DRC	46.9
Malawi	35.8
Mozambique	27.6
Namibia	11.0
South Africa	3.3
Tanzania	45.4
Zambia	22.4

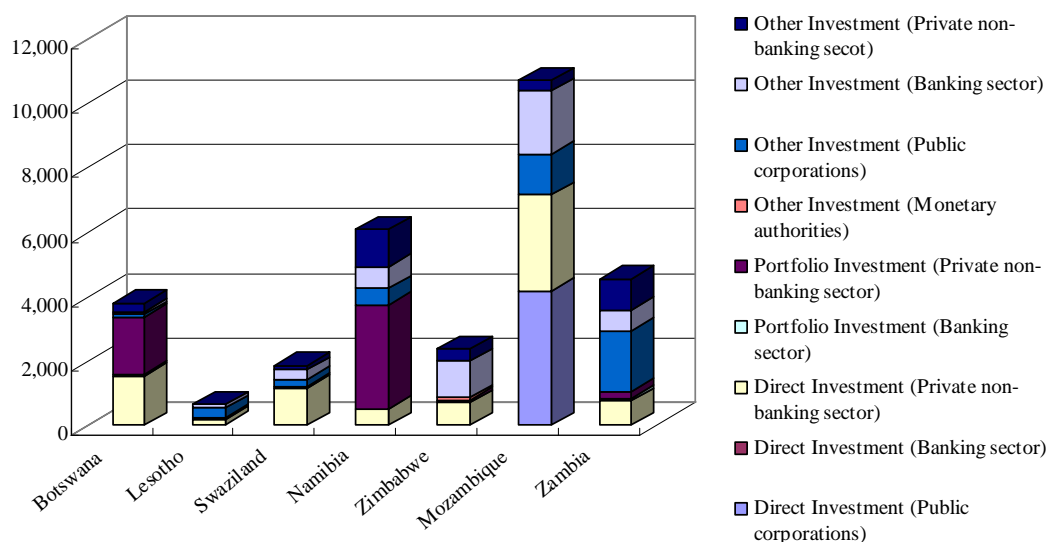
Source: World Bank, *World Development Indicators*.

¹⁶ UNCTAD, *World Investment Report 2009*.

Infrastructure Development and the Presence of South Africa

The countries of Southern Africa have a strong economic link with South Africa, which is among the leading trading partners of the most of the region’s countries except for Angola, and which is the leading source of imports for all of the region’s countries. Thus, many (imported) goods are circulating through corridors and ports within the region with South Africa as the starting point.

In addition, the presence of South African private enterprises within the region is significant. Not only in the mining sector, but in nearly all sectors including electric power development (Eskom), railways and ports (Transnet), finance (e.g., Standard Bank Group), communications (Vodacom, MTN), retailing (Shoprite), and construction (Grinaker–LTA and Five Group), many South African companies have become active in various Southern African countries since the mid 1990s. Two public development financial institutions of South Africa – the Industrial Development Corporation (IDC) and Development Bank of Southern Africa (DBSA) – have facilitated, directly and indirectly, these South African companies’ activities. Figure 3.1.9 summarizes the foreign investment of South Africa in selected countries in the region.



Source: South African Reserve Bank, *Quarterly Bulletin*, No. 254, December 2009.

Figure 3.1.9 Foreign Investment of South Africa in Selected Southern African Countries, as of 31 December 2008 (ZAR million)

In particular, two South African public corporations, Eskom and Transnet, which have provided indispensable infrastructure for SDIs/corridor development (e.g., railways, ports, electric power), have participated significantly in infrastructure development in the region. Eskom has invested about ZAR 325 million in a range of telecommunications, electricity supply, consultancy, infrastructure and hydroelectric projects in about 30 African countries with projects valued at ZAR 2.5 billion in the pipeline. Spoornet, which is the rail company of Transnet, has had agreements with several countries, such as Mozambique, for line rehabilitation and leasing of locomotives.¹⁷

One of Eskom’s core strategies is to make selected viable investments in the SADC countries connected to its grid to ensure the security of supply in South Africa. However, the recent tight financial condition of Eskom, together with the impact of the global financial crisis, is likely to

¹⁷ DBSA, “Doing Business in Post-Conflict/Fragile States: Challenge and Risks (third draft),” January 2010.

constrain pursuit of this strategy. Eskom has a ZAR 385 billion five-year capital expenditure plan to strengthen electric power generation capacity, of which the Government of South Africa has agreed to provide ZAR 60 billion of loans and ZAR 176 billion of guarantees.¹⁸ Due to the present economic crisis, Eskom has been engaged in considerable financial retrenchment, including suspension of a nuclear power generation project in December 2008.¹⁹

In contrast, the Transnet group (railways, ports, and pipelines), which has a five-year capital expenditure program of ZAR 80 billion, announced that its revenue in the first half of 2009 had increased by 3% over the same period in 2008, and thus “weathers the recession storm.”²⁰ While revenue from its pipeline unit has decreased due to fee reductions, and its port unit has decreased container and automobile handling, it has benefited from an increase in railway transport of iron ore and an increase in coal exports. In the last fiscal year Transnet invested ZAR 8.7 billion (which exceeded the plan in its capital expenditure), with improvements at the ports of Durban, Port Elizabeth, and Cape Town, and in railway infrastructure and rolling stock. However, Spoornet has become more domestic market oriented compared with Eskom, because of its limited successful experience in railway concessions, with joint ventures in particular, on the continent.²¹

Eskom and Transnet have received assistance from international financial institutions for their infrastructure development activities, including a syndicated loan from the former Japan Bank for International Cooperation (JBIC, a predecessor of the new JICA) and Japanese commercial banks, and loans from AfDB and the Finland Export Credit Agencies (Finnvera).

The Government of South Africa’s Department of Trade and Industry is advocating a “Southern Africa Transport Hub” infrastructure development plan, while promoting investment in SDIs/development corridors with the Development Bank of Southern Africa serving as focal coordinator. The plan aims to collect and process (add value) the raw materials of Southern African countries and export them to the world market via South Africa. The plan assumes use of ports under development in Cape Town and Port Elizabeth, as well as the port of Durban, which is the current hub port for the region.²²

The South African economy is expected to recover from the financial crisis in 2010 with the hosting of the World Cup. Maintaining sustainable growth of its pillar industries will be indispensable in this recovery, including (i) the mining industry, which is a driving force of the regional economy; (ii) the automotive industry, which in the region is only located in South Africa; and (iii) service industries including retail and distribution, communication, and finance, which are found across the region. Infrastructure development facilitating the regional flow of goods, services, people, and money, with South Africa located at the center of these flows, is at the center of the “Southern Africa Transport Hub” concept.

However, over the longer term, with the strong role played by multilateral development banks (MDBs) and other development partners, along with active entry into the market by emerging economies such as that of China and Brazil, a “South Africa oriented” development scenario is likely to become of less importance. Rather, not only will physical distribution activities centering on South Africa continue, but flows to/from countries outside of the region will become increasingly important.

¹⁸ Oxford Analytica, November 20, 2009; JETRO *Tsusho Koho* 1 April 2009.

¹⁹ Eskom, Annual Report 2009.

²⁰ Transnet, “Transnet Weathers the Recession Storm”, 27 October 2009.

²¹ DBSA (2010). The paper stated that “it was involved in railway concessions, management contracts or rehabilitation programs in about 14 countries. But many ventures were not successful and it had two joint venture concessions cancelled in a short time – those in Zambia and Mozambique.”

²² Based on an interview with the Department of Trade and Industry.

Diversification and Advancement of Industrial Structure

The diversification and upgrading of industrial structure (i.e., value added) has been a significant issue for a long time in Africa since most countries have historically depended on a monoculture economy. Although the SDI/corridor development model assumes growth led by mineral resources development, most SDI/corridor development projects (except for the Maputo corridor) have not had an adequate linkage with the economy of a wider area because they have focused too much on the development of transport infrastructure.²³ Moreover, the common industrial policy of SADC, the Regional Indicative Strategic Development Plan (RISDP), has limited relevance for the SDI/development corridor plan since it does not specify where in the region particular industries with potential competitiveness should be promoted.²⁴

African countries were affected by the current world economic crisis through reduced demand and funds from developed countries. This indicates that an economic structure depending on resource development (and associated resource export) is highly vulnerable to external shocks. Diversification of the region's industrial structure is needed to strengthen more fundamentally the competitiveness of the regional economy, rather than only seek to cope with an ongoing economic crisis.²⁵ Moreover, development of broader-based infrastructure, liberalization of regional trade and formation of customs unions, and harmonization of industrial development policies and systems (all measures promoted by the RECs) may be expected to contribute to the stabilization and convergence of the macro economy of each country,²⁶ and the diversification and advancement of national and regional industrial structures. An "image" of the diversification and advancement of the industrial structure of Sub-Saharan Africa is compactly presented in Figure 3.1.10, a Resource-based African Development Strategy (RADS), which is promoted as an Africa-wide SDI strategy and has become central to the African Union's industrialization strategy.^{27, 28}

²³ Rosalind H. Thomas, "Development Corridors and Spatial Development Initiatives in Africa", January 2009.

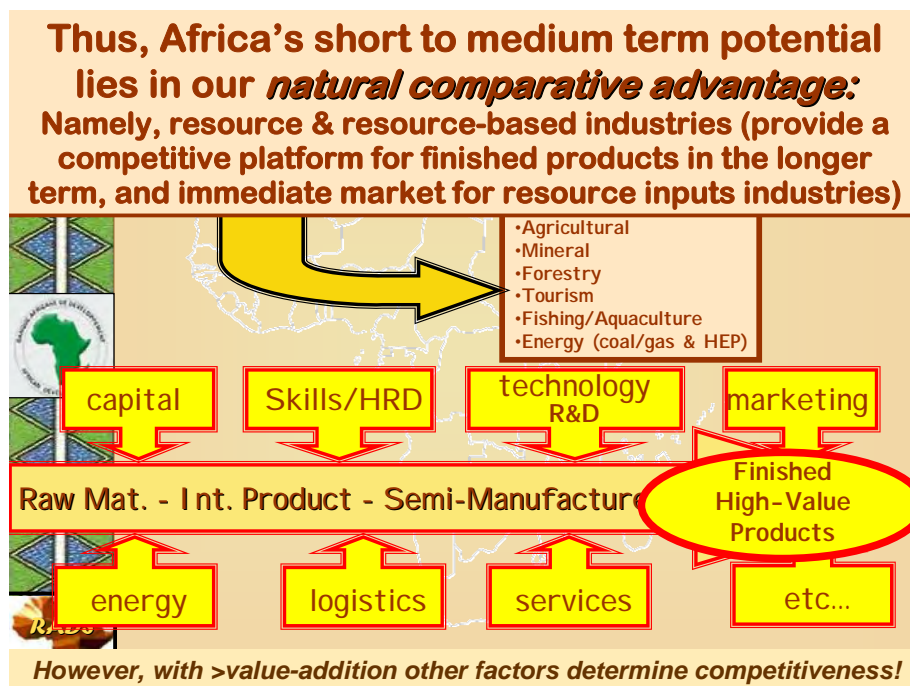
²⁴ The RISDP outlines the necessary conditions that should be realized towards the attainment of SADC's regional integration and development goals. It indicates that the member states and the Secretariat will develop a regional industrial development policy and strategy, and a competitiveness strategy. In this context, nine industrial sectors with comparative advantages are indicated in the SADC "Industrial Upgrading & Modernization Program": (i) agro-food, (ii) mineral processing (metal and nonmetallic), (iii) leather, (iv) forestry, (v) fisheries, (vi) chemicals, petroleum and pharmaceuticals, (vii) textile and garments, (viii) machinery and equipment, and (ix) services.

²⁵ SADC (April 2009) and World Economic Forum (2009). Similar views were often acquired through the field survey in the region.

²⁶ SADC, in its macro economy convergence program, is monitoring stabilization of the macroeconomic situation of each country through the following indices (the numerical figures in parenthesis were the 2008 target figures): (i) inflation rate (less than 10%), (ii) budget deficit/GDP ratio (5% or less), (iii) public debt/GDP ratio (60% or less); and (iv) current account deficit/GDP ratio (9% or less).

²⁷ Thomas (2009).

²⁸ Paul Jourdan, "A Resource-based African Development Strategy RADS", presentation material at WMMF Toronto, March 2008.



Source: Jourdan (2008).

Figure 3.1.10 Value-Added Concept of the Resource-based African Development Strategy

According to the RADS, resource and resource-based industries “could provide a competitive platform for value-added manufactured products in the longer term, and an immediate market for resource inputs industries (capital goods, services and consumables).” Further, “the key challenge is to deepen the resources sector linkages into the local economies through taking advantage of the down- and up-stream opportunities offered by the resources exploitation sector. However, as value is added to resources increasingly more complex ancillary inputs and competencies are required, which can often be more critical cost drivers than the resources feedstocks”²⁹

Therefore, the SDI/development corridor model has to be more than ever strongly linked with industrial development potential based on indigenous resources, i.e., comparative advantages. However, as mentioned, the diversification and advancement of industrial structures tends to increase costs. For value-added African resource-based products to be competitive in the global market, in addition to physical infrastructure development, a reduction in transport costs through trade facilitation measures is required. Diversification of export markets, including intra-regional markets, is also necessary to increase competitiveness, as well as to reduce vulnerability to external shocks. Moreover, realization of comparative advantage requires policy and systematic support (including technology, human resources, and funds). Accordingly, the SDI/corridor development approach should be linked with the above-mentioned policy and regulatory system measures. In addition, these policy and regulatory system measures should not be inconsistent or inappropriately overlapped among RECs and/or member countries, but need to be ensured coherence among them.

²⁹ Jourdan (2008).

3.2 Growth Scenarios

3.2.1 Hypotheses for Growth Scenarios

Three growth scenarios have been formulated based on the examination in Section 3.1. The basic hypotheses underlying each of the growth scenarios (which are not mutually exclusive) are as follows:

1. **The engine of growth:** The industry that will lead growth in Southern Africa will still be mineral resources development, and the expansion of associated industries can be expected. However, since securing electric power supplies is indispensable to resources development, the acquisition or new development of fuel resources (coal, hydroelectric power, and gas) and power pooling is required. Also, the agricultural sector has substantial potential to further develop, based on investment in the sector.
2. **Physical distribution pattern:** The presence of South Africa in mineral resources and infrastructure development will relatively decrease, due to the entry of firms from emerging economies, as well as the activity of MDBs and other development partners. Physical distribution activities both centering on South Africa and in the surrounding countries of the region will thereby be activated
3. **Industrial structure:** The scenarios are based on SDI/development corridors, strengthening of the linkages with industrial development potential based on natural resources (comparative advantage), and policies/systems to diversify and advance the industrial structure. At the same time external market for trade will be diversified and intra-regional trade will be expanded.

These hypotheses correspond to the questions raised at the beginning of the preceding section. In other words, the three major assumptions of the SDI/Development Corridor models have been tested against the current economic situation to formulate the growth scenarios described in the following section. As the three assumptions are “variables” in the SDI/Development Corridor model, the scenarios featuring each hypothesis describe different aspects of the grand strategy of the SDI/Development Corridor model, which envisages the economic growth through promotion of intra-and-inter regional trade and investment in the mining, agriculture and other related industries. The three scenarios, therefore, are not mutually exclusive, but rather complement each other. It means that any one growth scenario is not be selected, but each scenario complement each other for the development of industries and infrastructure along the corridors to achieve the growth of the regional economy. When the individual corridors will be organically-linked, a couple of “Growth Belts” will emerge among the Southern African region. Figure 3.2.1 sets out an “image” of the growth scenarios showing products (i.e., “engines” of growth) and markets.

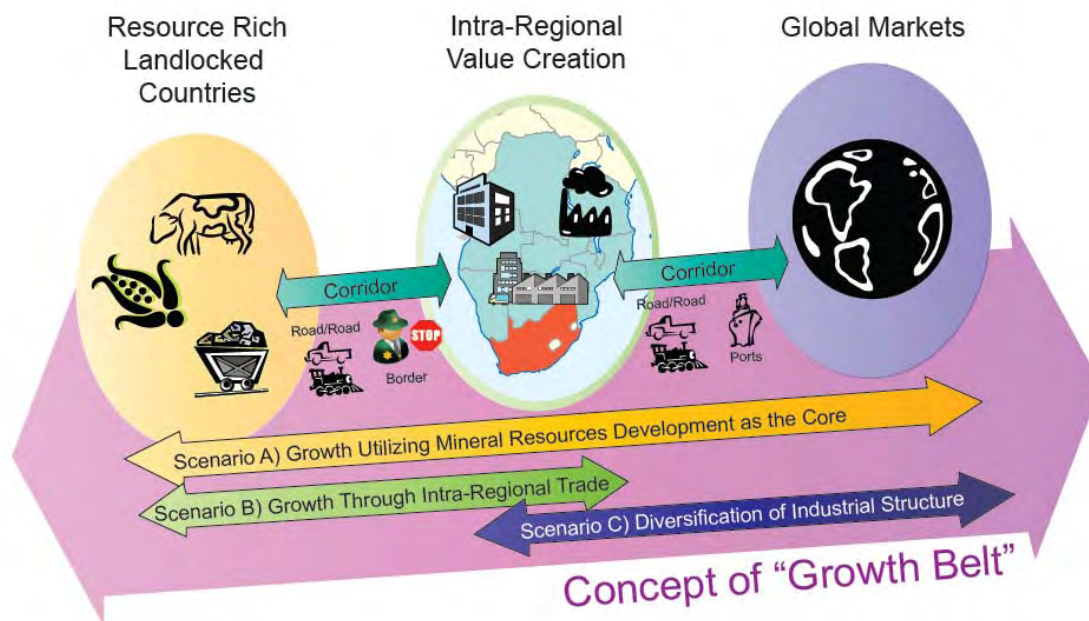


Figure 3.2.1 "Image" of the Growth Scenarios

3.2.2 Growth Scenarios

Scenario a) Growth Utilizing Mineral Resources Development as the Core

The Scenario As the global economy recovers, investment by "major" companies in mineral resources development in Angola, Botswana, the DRC, and Zambia will be fully resumed. Investment from companies from emerging economies will continue. Basic infrastructure (electric power, transportation) required for development will be developed, and the investment in manufacturing (processing and assembly, as well as other sectors (agriculture, forestry, and tourism) will be induced. Moreover, public and private investment in energy development projects (e.g., thermal power, hydroelectric power, gas) will be promoted to secure electric power supply.

The areas and projects with development potential include the following:³⁰

- copper development and refinement, and cobalt development in the Copperbelt (Zambia, DRC), and nickel development (south of Lusaka);
- uranium, niobium, bauxite, and ilumenite development (north central Malawi);
- moatize coal development (Tete province, Mozambique);
- Mchuchuma coal and Liganga iron ore development (southwestern Tanzania);
- Mamabula coal development and power generation (southeastern Botswana), cement development (northern Botswana), and copper and nickel development (eastern Botswana);
- copper development and refining (northern Namibia), uranium development (western Namibia (Walvis Bay inland), and zinc development (southwestern Namibia);
- fertilizer terminal project (Beira Port, Dar es Salaam port);
- Nacala Special Economic Zone (e.g., Nacala port area industrial development, Nacala-a-Velha oil refining, tourism development);
- Moma heavy sand development (Nacala area); and
- diamond development (northern Angola) and petroleum development (Angola offshore).

³⁰ See Appendix for project information.

The corridors include above mentioned areas and projects will be expected to evolve into the “Growth Belts”, which have organically-linked structure of corridors with wider expanses of areas.

There is an extensive argument on the role of mineral resources in economic development in Sub-Saharan Africa.³¹ Some argue that mineral resources are a “curse” and that growth in mineral-rich and mineral-dependent countries has been less rapid than in less endowed countries. Empirically supportive examples in which mining has contributed to better development outcomes are limited to certain countries, but these include Botswana, Namibia, and South Africa, in which success can be linked to sound management of the sector, good governance, respect for the rule of law, good infrastructure, and an overall favorable environment for business development³². Therefore, the above scenarios need to address the following challenges³³:

- (i) creating a viable, integrated, and diversified mining industry throughout the value chain, and sustaining mineral wealth without compromising environmental, social, and cultural considerations, and ensuring a regulatory framework that encourages mineral creation (the creation challenge);
- (ii) investing in transitory mineral revenues to ensure lasting wealth and deciding how much should be saved and how much should be invested and in what (the investment challenge);
- (iii) distributing benefits from mining equitably, balancing and managing conflicting local and national-level concerns and interests, and deciding what form the allocation should take to promote pro-poor growth (the distributional challenge); and
- (iv) ensuring sound systems of governance and a stable macroeconomic policy, which includes curbing “rent seeking”³⁴ and corruption, addresses issues such as the “Dutch Disease”³⁵ and externalities such as unstable commodity prices, and enhances public interest in wealth conservation (the governance and macroeconomic challenges).

Where these challenges were seriously addressed, the investment environment was made more conducive to other resource-related sectors.

Scenario b) Growth through Intra-Regional Trade

The Scenario *While regional trade is centered on trade with South Africa, productivity and incomes in neighboring countries in the region improve through local procurement (e.g., of raw materials including agricultural products, services) by South African companies. Moreover, intra-regional trade that does not go through South Africa will be expanded, including trade in agricultural products and livestock, intermediate goods, and consumer goods. In particular, intra-regional trade of agricultural and related products based on “complementary” structures will be developed through the improvement of transport infrastructure.*

³¹ See, e.g., Antonio M.A. Pedro, “Mainstreaming Mineral Wealth in Growth and Poverty Reduction Strategies”, Economic Commission for Africa, ECA Policy Paper No.1, December 2004.

³² These successful examples could be common knowledge among all countries in Sub-Saharan Africa.

³³ See the source in the previous footnote.

³⁴ Rent seeking occurs when an individual, organization or firm seeks to earn income by capturing economic rent through manipulation or exploitation of the economic environment, rather than by earning profits through economic transactions and the production of added wealth.

³⁵ The theory is that an increase in revenues from natural resources will deindustrialise a nation’s economy by raising the exchange rate, which makes the manufacturing sector less competitive and public services entangled with business interests.

Regarding trade with South Africa, goods that already have a certain “track record”, e.g., those shown in Table 3.2.1, are expected to be traded more activity through development of distribution infrastructure. In addition to mineral resources, these goods include food, meat, and livestock (Botswana, Malawi, Mozambique, and Namibia), beverage and tobacco (Botswana and Namibia), cotton (Malawi), chemicals (Botswana, Namibia, and Zimbabwe), machinery and transport equipment (Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia, and Zimbabwe), plywood (Malawi), precious stones (Tanzania), textiles (Zimbabwe), and nickel products (Zimbabwe).

Regarding procurement by South African companies, goods and materials expected to be part of the South African retail trade supply chain, include grains, perishable foods, processed foods, and labeling and packaging materials, among others.³⁶ Such expanded procurement by South African retail chains may be expected to have positive effects on inter-regional trade. South African supermarkets in SADC countries have started importing fresh products to their stores in other African countries to meet production deficits, which has created trade in these products in the region, leading to export opportunities for both small-scale and large-scale farmer.³⁷

However, the local procurement system is rapidly changing. As supermarkets increase their market shares, they consolidate their procurement and may begin to use specialized wholesalers and preferred suppliers. They also respond to changes in consumer dynamics, typically observed in South Africa as the emergence of so-called “black diamonds”, which is increasing importance with respect to food safety and quality standards. To guarantee quality, they are using more private labels (brands) with the strict control of suppliers of raw materials, which increases the technological and financial burdens on suppliers, particularly on small-scale farmers.³⁸ As this “restructuring” of the supply chain system is consistent with the global trend, adaptation of local industries to the system, which may require various forms of support from the public sector and international development partners, will open the window to participation in the global market.

Next, to examine intra-regional trade other than that involving South Africa, products with track records of some value were extracted from Table 3.2.2. According to these data, physical distribution patterns involving substantial trade value occur between Botswana and Zimbabwe, between Zambia and the DRC, and between Namibia and Angola. Specifically, coal and oil are exported from Botswana to Zimbabwe; machinery and transport equipment are exported from Zimbabwe to Botswana, food (especially flour and sugar), petroleum, chemicals (inorganic chemical element, lime, and cement), machinery, and transport equipment are exported from Zambia to the DRC; and automobiles are exported from Namibia to Angola. Among other countries, beverages and tobacco, petroleum, chemicals, oil, and fat are traded. Figure 3.2.2 shows the pattern of intra-regional trade except for South Africa.

³⁶ E.g., Shoprite is operating the 145 corporate outlets and 57 franchise stores in 15 nations in Africa outside of South Africa, with about 14% of its sales were obtained from these countries (2008). The company aims to expand this market share to 50%. See the Shoprite website (<http://www.shopriteholdings.co.za/pages/1019812640/about-our-company/Geographical-spread.asp>; and Business Day, “Shoprite Wants Half Its Revenue From Continent”, 19 February 2009.

³⁷ Rosemary Akhengu Emongor, “The Impact of South African supermarkets on agricultural and industrial development in the Southern African Development Community”, University of Pretoria, June 2008.

³⁸ See the source in the previous footnote. Regarding the mention of the consumer dynamics, see André Louw, et al., “Recommendation for restructuring food markets in the southern African region: Dynamics in context of the fresh produce sub sector”, presented for the International Food & Agribusiness Management Association 19th Annual World Symposium, Budapest, Hungary, 20–21 June 2009.

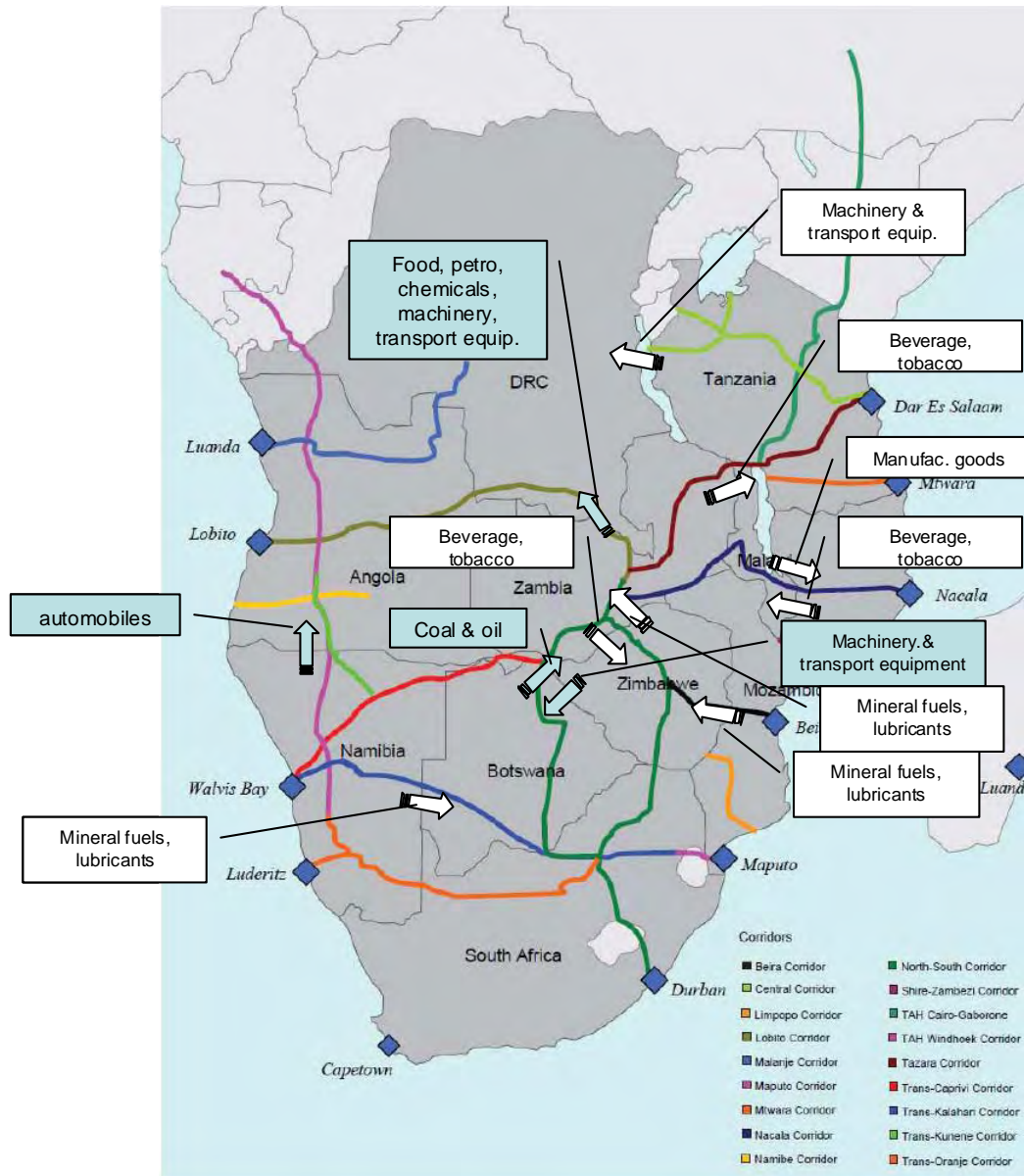


Figure 3.2.2 Current Pattern of Intra-Regional Trade Except for South Africa

Table 3.2.1 Major Exports from Southern African Countries to South Africa

Period	Trade Flow	Reporter	Partner	Commodity	Trade Value(mn\$)	Share*
2008	Export	Botswana	South Africa	Food and live animals	61.10	50.5%
2008	Export	Botswana	South Africa	Beverages and tobacco	6.49	38.1%
2008	Export	Botswana	South Africa	Crude materials, inedible, except fuels	489.21	51.7%
2008	Export	Botswana	South Africa	Chemicals and related products, n.e.s.	24.54	56.6%
2008	Export	Botswana	South Africa	Machinery and transport equipment	102.46	67.5%
2008	Export	Malawi	South Africa	Food and live animals chiefly for food	21.98	15.8%
2008	Export	Malawi	South Africa	Crude materials, inedible, except fuels	41.77	73.0%
2008	Export	Malawi	South Africa	Manufactured goods classified chiefly by materials	4.98	15.9%
2008	Export	Malawi	South Africa	Machinery and transport equipment	4.40	28.8%
2008	Export	Mozambique	South Africa	Food and live animals	31.48	21.2%
2008	Export	Mozambique	South Africa	Mineral fuels, lubricants and related materials	176.05	61.2%
2008	Export	Mozambique	South Africa	Animal and vegetable oils, fats and waxes	1.68	27.2%
2008	Export	Mozambique	South Africa	Machinery and transport equipment	23.66	23.7%
2008	Export	Namibia	South Africa	Food and live animals chiefly for food	278.24	32.8%
2008	Export	Namibia	South Africa	Beverages and tobacco	88.78	45.3%
2008	Export	Namibia	South Africa	Crude materials, inedible, except fuels	117.50	11.3%
2008	Export	Namibia	South Africa	Animal and vegetable oils, fats and waxes	1.89	23.3%
2008	Export	Namibia	South Africa	Chemicals and related products, nes	8.47	25.2%
2008	Export	Namibia	South Africa	Machinery and transport equipment	52.42	18.2%
2007	Export	United Rep. of Tanzania	South Africa	Manufactured goods classified chiefly by material	23.76	10.8%
2007	Export	United Rep. of Tanzania	South Africa	Machinery and transport equipment	12.09	12.7%
2008	Export	Zambia	South Africa	Crude materials, inedible, except fuels	259.59	30.9%
2008	Export	Zambia	South Africa	Machinery and transport equipment	65.14	45.7%
2007	Export	Zimbabwe	South Africa	Crude materials, inedible, except fuels	539.49	66.8%
2007	Export	Zimbabwe	South Africa	Mineral fuels, lubricants and related materials	4.59	21.5%
2007	Export	Zimbabwe	South Africa	Chemicals and related products, n.e.s.	5.28	11.0%
2007	Export	Zimbabwe	South Africa	Manufactured goods classified chiefly by material	135.83	16.9%
2007	Export	Zimbabwe	South Africa	Machinery and transport equipment	48.30	13.6%

*Share of the export value to South Africa as a proportion of the total export value of the commodity.

Source: Compiled from UNcomtrade. Data on exports from Angola and DRC are not available.

Table 3.2.2 Major Exports from Southern African Countries to Other Southern African Countries except for South Africa

Period	Trade Flow	Reporter	Partner	Commodity	Trade Value(mn\$)	Share*
2008	Export	Botswana	Dem. Rep. of the Congo	Beverages and tobacco	4.19	24.6%
2008	Export	Botswana	Zambia	Beverages and tobacco	5.04	29.6%
2008	Export	Botswana	Zambia	Chemicals and related products, n.e.s.	8.35	19.3%
2008	Export	Botswana	Zimbabwe	Crude materials, inedible, except fuels	183.11	19.4%
2008	Export	Botswana	Zimbabwe	Mineral fuels, lubricants and related materials	12.71	76.2%
2008	Export	Malawi	United Rep. of Tanzania	Manufactured goods classified chiefly by materials	18.83	60.2%
2008	Export	Malawi	Mozambique	Chemicals and related products, nes	1.38	19.7%
2008	Export	Malawi	Mozambique	Machinery and transport equipment	3.52	23.0%
2008	Export	Malawi	Zimbabwe	Food and live animals chiefly for food	14.36	10.3%
2008	Export	Mozambique	Malawi	Beverages and tobacco	22.39	11.5%
2008	Export	Mozambique	Malawi	Chemicals and related products, n.e.s.	3.08	49.1%
2008	Export	Mozambique	Zimbabwe	Mineral fuels, lubricants and related materials	77.23	26.8%
2008	Export	Namibia	Angola	Beverages and tobacco	33.63	17.2%
2008	Export	Namibia	Angola	Mineral fuels, lubricants and related materials	4.39	19.6%
2008	Export	Namibia	Angola	Animal and vegetable oils, fats and waxes	3.70	45.8%
2008	Export	Namibia	Angola	Chemicals and related products, nes	18.18	54.0%
2008	Export	Namibia	Angola	Machinery and transport equipment	182.89	63.4%
2008	Export	Namibia	Botswana	Mineral fuels, lubricants and related materials	9.73	43.4%
2008	Export	Namibia	Zambia	Chemicals and related products, nes	3.39	10.1%
2007	Export	United Rep. of Tanzania	Dem. Rep. of the Congo	Animal and vegetable oils, fats and waxes	4.61	23.1%
2007	Export	United Rep. of Tanzania	Dem. Rep. of the Congo	Chemicals and related products, n.e.s.	6.85	11.5%
2007	Export	United Rep. of Tanzania	Dem. Rep. of the Congo	Machinery and transport equipment	10.37	10.8%
2007	Export	United Rep. of Tanzania	Malawi	Chemicals and related products, n.e.s.	7.35	12.4%
2007	Export	United Rep. of Tanzania	Zambia	Animal and vegetable oils, fats and waxes	2.02	10.1%
2007	Export	United Rep. of Tanzania	Zambia	Chemicals and related products, n.e.s.	9.15	15.4%
2008	Export	Zambia	Dem. Rep. of the Congo	Food and live animals	68.40	34.0%
2008	Export	Zambia	Dem. Rep. of the Congo	Mineral fuels, lubricants and related materials	26.99	75.1%
2008	Export	Zambia	Dem. Rep. of the Congo	Chemicals and related products, n.e.s.	58.49	80.9%
2008	Export	Zambia	Dem. Rep. of the Congo	Machinery and transport equipment	44.40	31.1%
2008	Export	Zambia	Malawi	Beverages and tobacco	45.88	57.5%
2008	Export	Zambia	Zimbabwe	Food and live animals	35.00	17.4%
2008	Export	Zambia	Zimbabwe	Beverages and tobacco	17.45	21.9%
2007	Export	Zimbabwe	Botswana	Machinery and transport equipment	147.83	41.5%
2007	Export	Zimbabwe	Dem. Rep. of the Congo	Beverages and tobacco	45.31	16.3%
2007	Export	Zimbabwe	Dem. Rep. of the Congo	Mineral fuels, lubricants and related materials	5.27	24.7%
2007	Export	Zimbabwe	Zambia	Mineral fuels, lubricants and related materials	10.14	47.6%
2007	Export	Zimbabwe	Zambia	Chemicals and related products, n.e.s.	7.79	16.2%

*Share of the export value to the partner country as a proportion of the total export value of the commodity.

Source: Compiled from UNcomtrade. Data on exports from Angola and DRC are not available.

Infrastructure development may be expected to further activate this trade.³⁹ In particular, the bulky nature of agricultural trade has limited trading over long distances in view of the poor infrastructure and high trading costs, which discourages production and hence intra-African trade in such commodities. Addressing these domestic and regional infrastructure constraints, by lowering trade costs, could lead to greater intra-African trade, including trade in agricultural commodities.⁴⁰

Regarding intra-regional agricultural trade in Southern Africa, there has been an interesting attempt to analyze the complementarities of agricultural trade between countries. Using UN trade data, Pratt, Diao, and Baththa (2009) calculated matches of importing and exporting industries between countries.⁴¹ In Table 3.2.3, row totals represent the total number of matches that exports from countries in the first column find among industries imported by countries in the first row. Column totals show the number of matches that imports to countries in the first row find among industries exported by countries in the first column. This table shows that SACU, Tanzania, and Zimbabwe are the exporters with the highest potential in the region, whereas high comparative disadvantages and a high number of matches for importing industries are found for Angola and the DRC.⁴² SACU is also a major importer, showing more matches for industries specialized in imports than in exports.

Table 3.2.3 Number of Matches between Importing and Exporting Industries with High Complementarities in SADC

Exporters	Importers										Total matches exporting industries
	Ang.	DRC	Mad.	Mwi.	Mau.	Moz.	Zim.	Tnz.	Zam.	SACU	
Angola		1	1	1	2	2	1	1	1	9	19
DRC	0		1	0	1	0	1	0	1	11	15
Madagascar	4	5		3	11	9	5	5	7	53	102
Malawi	5	8	10		7	11	8	8	9	71	137
Mauritius	6	6	13	7		7	6	5	7	45	102
Mozambique	3	5	4	7	3		6	2	8	29	67
Zimbabwe	20	17	12	14	17	16		9	15	118	238
Tanzania	10	13	16	16	18	20	20		17	137	267
Zambia	5	3	5	3	8	3	8	1		51	87
SACU	54	46	33	35	43	47	31	29	31		349
Total matches importing industries	107	104	95	86	110	115	86	60	96	524	

Source: Pratt, Diao and Baththa (2009).

³⁹ At the same time, it should be recognized that while cross-border trade in agricultural products, particularly food, has been taking place across Africa over the years, the magnitude of this trade is poorly recorded in national statistics.

⁴⁰ UNCTAD, Economic Development in Africa Report 2009. In the Southern African region, development of transfer infrastructure may cause a “straw effect”, which deprives countries other than South Africa of their economic vitalities, as the small economies tend to be absorbed by gigantic South Africa’s economy. In this respect, it would be important to develop road networks linking surrounding countries to make the regions’ economic activities diversified, thereby avoiding an excess concentration of economic transactions to South Africa

⁴¹ Alejandro Nin Pratt, Xinshen Diao and Yonas Bahta, “How Important is Regional Free Trade Area for Southern Africa?: Potential Impacts and Structural Constraints”, IFPRI Discussion Paper 00888, August 2009. In this study, 193 agricultural-related product groups classified by the four-digit categories in the standard international trade classification (SITC) are referred as “industries”. The UN Comtrade data during the period 2000–2005 was utilized for analysis.

⁴² It would have been possible to add Mozambique to this group considering the high number (115) of matches for importing industries.

Table 3.2.4 Sets of Industries (Agricultural Products) Showing Trade Complementarities between SADC Countries

SITC code	Industry	Exports			Imports		
		Value (thousands US\$)	Share in Ag exports (%)	To SADC importers (%)	Value (thousands US\$)	Share in Ag imports (%)	From SADC exporters (%)
0611	Raw sugar, beet & cane	511,305	5.0	3.0	67,842	1.1	83.1
1121	Wine of fresh grapes, including grape must	470,765	4.6	1.9	58,180	0.9	13.2
2631	Raw cotton, other than linters	304,359	3.0	24.0	99,275	1.6	73.4
0440	Maize (corn), unmilled	168,453	1.6	62.4	152,705	2.4	76.4
0752	Spices, exc. pepper & pimento, ground or not	231,638	2.3	0.3	13,075	0.2	39.4
0612	Refined sugar & other products of refining, no syrup	122,078	1.2	33.8	95,919	1.5	40.3
1124	Distilled alcoholic beverages	36,735	0.4	40.7	129,463	2.0	7.4
0111	Meat of bovine animals, fresh, chilled, or frozen	114,139	1.1	2.1	50,757	0.8	4.6
1110	Nonalcoholic beverages, nes	72,448	0.7	70.4	73,426	1.2	72.8
6513	Cotton yarn & thread, gray, not mercerized	50,594	0.5	40.8	114,295	1.8	9.5
0422	Rice, glazed or polished, not further prepared	10,448	0.1	65.8	135,204	2.1	0.5
0711	Coffee, green or roasted	114,439	1.1	2.3	32,573	0.5	8.8
0460	Meal and flour of wheat or of meslin	20,507	0.2	69.9	113,869	1.8	20.8
0741	Tea	100,445	1.0	16.4	26,786	0.4	79.4
0470	Meal & flour of cereals exc. wheat or meslin	35,385	0.3	84.6	75,022	1.2	47.4
1222	Cigarettes	57,485	0.6	45.3	48,739	0.8	74.6
0813	Oilseed cake & meal & other veg. oil residues	7,779	0.1	69.8	112,801	1.8	3.7
1123	Beer, including ale, stout, porter	21,368	0.2	90.0	84,996	1.3	50.5
2927	Cut flowers & foliage	98,369	1.0	0.7	1,515	0.0	78.6
0819	Food wastes & prepared animal feed, nes	20,745	0.2	31.7	35,346	0.6	25.4
0542	Beans, peas, lentils & leguminous veg., dried	35,013	0.3	9.9	41,448	0.7	27.0
6114	Leather of other bovine cattle & equine leather	15,913	0.2	6.5	58,313	0.9	2.2
0484	Bakery products	23,387	0.2	44.1	40,269	0.6	25.0
0223	Milk & cream, fresh	8,855	0.1	91.1	41,209	0.7	45.2
6512	Yarn of wool & animal hair	8,448	0.1	65.5	57,431	0.9	9.1
0545	Other fresh vegetables	39,076	0.4	2.5	23,713	0.4	48.4
0482	Malt, including malt flour	9,725	0.1	95.4	44,059	0.7	32.1
0620	Sugar confectionery & other sugar preparations	6,788	0.1	87.5	34,349	0.5	37.5
0488	Preparations of cereals, flour & starch for food	11,713	0.1	42.5	34,748	0.5	12.0
0118	Other fresh, chilled, frozen meat & edible offals	37,522	0.4	0.8	5,939	0.1	5.8
	Other	438,846	4.3	20.0	664,355	10.5	23.4
	Total	3,204,768	31.3	18.7	2,567,622	40.6	31.0

Source: Pratt, Diao and Baththa (2009).

Table 3.2.4 shows the total volume of imports and exports of main industries with the shares of intra-SADC region import/export. Products from industries such as maize, nonalcoholic beverages, meal and flour of cereals, cigarettes, beer, milk, and sugar confectionery are mainly traded in the regional market, as both regional imports and exports have high shares in total trade, and therefore these products and industries have a high degree of complementarity. Exports of rice, oilseed cake, beer, and wool yarn have the SADC region as their major destination, with more than 60% of total exports of those industries going to SADC countries, but with much lower share among import market. These industries are supposed to have high potentialities to become complementary, that is, to be exported more into the region with increasing market shares.

Considering the complementary structure (present and future) of agricultural trade between Southern African countries as mentioned above, together with the socio-economic conditions of the region (Chapter 2), the potential development of intra-regional trade of agricultural and related products is envisaged as follows:

- (i) As indicated in Table 3.2.5, Angola and DRC, the countries with the weakest agriculture sectors in region, have a great demand for food, including maize, rice, wheat and flour of wheat/maize, chicken meat, sugar, and beverages. In particular, the DRC has a huge potential as a foodstuff market with the largest population in the region.
- (ii) From the viewpoint of complementarities, SACU (mostly South Africa) and Tanzania have high potential to meet these demands, and Malawi could supply certain products, considering their production capacity, export records, and the development strategies outlined in the previous section. Zimbabwe may have potential based on its complementary industrial structure to the region, but the ongoing collapse of its agricultural sector arising from political turmoil hinders its potential development (Table 3.2.6).
- (iii) Current access to the Angola and DRC markets is rather limited. As indicated in Table 3.2.2, substantial exporters to these two countries, except for South Africa, are Botswana (to the DRC), Namibia (to Angola), Tanzania (to the DRC), Zambia (to the DRC), and Zimbabwe (to the DRC). Except for Namibia and Tanzania, the products are distributed along the north-south axis, which connects DRC and South Africa. If the east-west axes, which connect Tanzania/Malawi and DRC and/or Angola (probably through Zambia), and the second north-south axis that connects Angola and Namibia are developed, intra-regional trade between and among these countries is expected to expand.⁴³ Furthermore, these new axes of physical distribution are expected to become components of the “Growth Belts”.
- (iv) Mozambique and Zambia, the countries with limited comparative disadvantages in terms of complementarities, may also have potential to become exporters in the region, if they could make use of FDI to the agriculture sectors. They could supply some import demands of Botswana and Namibia (SACU members), as well as Angola and DRC (Table 3.2.7 & 3.2.8).

Figure 3.2.3 shows the potential of intra-regional trade flow of agricultural and related products as stated above.

⁴³ This assumes completion of the SADC Free Trade Area (FTA), including Angola and the DRC, which now have relatively higher tariff rates.

Table 3.2.5 Major Agricultural Import Items (top 10 items of import quantity) – Angola and DRC (1,000 tons)

Angola						DRC					
Item	2003	2004	2005	2006	2007	Item	2003	2004	2005	2006	2007
Flour of Wheat	252 R	290 R	318 R	358 R	318 R	Wheat	263 *	258 R	205 R	357 F	258 R
Sugar Refined	236 R	227 R	220 R	271 R	254 R	Sugar Refined	7 R	3 *	6 R	5 R	133 R
Rice Milled	44 R	267 *	67 F	70 F	166 F	Flour of Wheat	180 F	130 F	130 F	83 R	99 R
Flour of Maize	111 R	115 R	142 R	21 F	150 F	Flour of Maize	70 F	77 *	55 R	49 R	55 R
Beer of Barley	129 R	131 R	85 R	142 R	139 R	Chicken meat	22 R	36 R	37 R	43 R	51 R
Chicken meat	99 R	86 R	103 R	129 R	138 R	Palm oil	18 F	10 R	16 R	32 R	47 R
Wine	50 R	58 R	75 R	96 R	103 R	Sugar Raw Centrifugal	70 F	67 R	78 R	59 R	44 R
Soybean oil	81 R	74 R	83 R	64 *	101 *	Malt	12 R	19 R	25 R	24 R	27 R
Beverage Non-Alc	127 R	78 R	22 R	41 R	86 R	Peas, dry	7 *	9 *	9 R	7 R	21 R
Palm oil	25 R	27 R	44 R	57 *	64 *	Rice Broken	2 R	5 R	9 R	9 R	14 R

Notes: * = Unofficial figure, F = FAO estimate, R = Estimated data using trading partners database

Source: FAOSTAT

Table 3.2.6 Selected Agricultural Export Items – Tanzania, Malawi, South Africa, and Zimbabwe (1,000 tons)

Tanzania						South Africa					
Item	2003	2004	2005	2006	2007	Item	2003	2004	2005	2006	2007
Maize	156	54	99	24	87	Beverage Non-Alc	136	125	52	60	90
Wheat	130	126	3	1	90	Beer of Barley	58 *	47	17	14	19
Flour of Maize	12	0	3	0	0 *	Flour of Maize	62	24	342	45	13
Flour of Wheat	28	54	8	40	90	Flour of Wheat	44	28	21	14	5
Sugar Raw Centrifugal	0	0	23	17	62	Maize	785	450	2,126	628	72
Sugar Refined	23	22	1	0 *	3	Wheat	57	54	32	19	55
Rice Milled	4	0	4	0	15	chicken Meat	4 *	3	2	2	2
Palm oil	3	2	2	10	16	Sugar Raw Centrifugal	693	672	890	1,092	732
Beverage Non-Alc	0	0	0	2	0	Sugar Refined	286	291 *	183	245 *	300
Beer of Barley	2	3	3	3	2	Rice Milled	9	7	10	24 *	4
						Palm Oil	2	1	1	1	1
						Soybean Oil	6 R	1	1	8	1

Zimbabwe						Malawi					
Item	2003	2004	2005	2006	2007	Item	2003	2004	2005	2006	2007
Maize	1 F	0 *	1	0 R	1 R	Maize	55	13 R	0 R	1 R	391
Wheat	4 R	0 *	1	1 F	1 F	Wheat	0 F	2 R	2 F	2 F	6
chicken Meat	0 R	1	1	1 F	1 F	Sugar Raw Centrifugal	134 *	97 R	68 R	64 R	113
Sugar Raw Centrifugal	83 R	79	149	102	53 R	Sugar Refined	39	8 R	3 R	13 R	2
Sugar Refined	14 F	24	32	59 *	8 R	Rice Milled	1	0 R	0 R	0 R	5

Notes: * = Unofficial figure, F = FAO estimate, R = Estimated data using trading partners database

Source: FAOSTAT.

Table 3.2.7 Major Agricultural Import Items (top 10 items of import quantity) – Botswana and Namibia (1,000 tons)

Botswana						Namibia					
Item	2003	2004	2005	2006	2007	Item	2003	2004	2005	2006	2007
Wheat	5 *	10 F	9 F	9 F	51	Palm oil	0	0 F	0 F	198 R	306 R
Food Wastes	40	0 R	0 F	0 F	51	Fatty Acids	1	0 F	0 F	79 R	75 R
Maize	60	47 F	45 F	0 R	35	Rubber Nat Dry	0	0 F	0 F	14 R	44 R
Sugar Refined	3 *	14 R	7 R	24 R	32	Wheat	28	58 R	54 F	49 R	44 R
Fruit Juice Nes	15	0 R	0 R	0 R	24	Food Waste, Prep. for Feed	41	41 F	41 F	41 F	41 F
Sorghum	26	35 F	32 F	32 F	23	Oil Hydrogenated	1	2 R	10 R	5 R	37 R
Beer of Barley	2	0 R	0 R	0 R	23	Palm kernel oil	0 F	0 F	0 F	31 R	35 R
Food Prep Nes	23	0 R	0 R	0 R	22	Malt	13	17 R	17 R	18 R	27 R
Flour of Maize	8	8 F	8 F	8 F	21	Margine Short	3	3 F	4 F	8 R	14 R
Potatoes	16	16 F	16 F	16 F	20	Rye	8	8 F	8 F	8 F	8 F

Notes: * = Unofficial figure, F = FAO estimate, R = Estimated data using trading partners database

Source: FAOSTAT.

Table 3.2.8 Selected Agricultural Export Items – Zambia and Mozambique (1,000 tons)

Mozambique						Zambia					
Item	2003	2004	2005	2006	2007	Item	2003	2004	2005	2006	2007
Sugar Raw Centrifugal	25 R	43 R	78 R	81 R	106 R	Flour of Maize	8	19	10	0	0 F
Maize	3 R	12 R	1 R	103 R	19 R	Flour of Wheat	3	7	16	22	22 F
Sugar Refined	19 R	4 R	7 R	69 R	8 R	Maize	28	85 *	47	28 *	25 R
Flour of Wheat	0 F	1 R	0 R	0 R	1 R	Rice Milled	0	2	0	0 *	0 F
Flour of Maize	0 R	0 F	0 R	1 R	0 R	Sorghum	1	0	0	1	0 R
						Sugar Raw Centrifugal	106	108	115 *	110	43 R

Notes: * = Unofficial figure, F = FAO estimate, R = Estimated data using trading partners database
 Source: FAOSTAT.

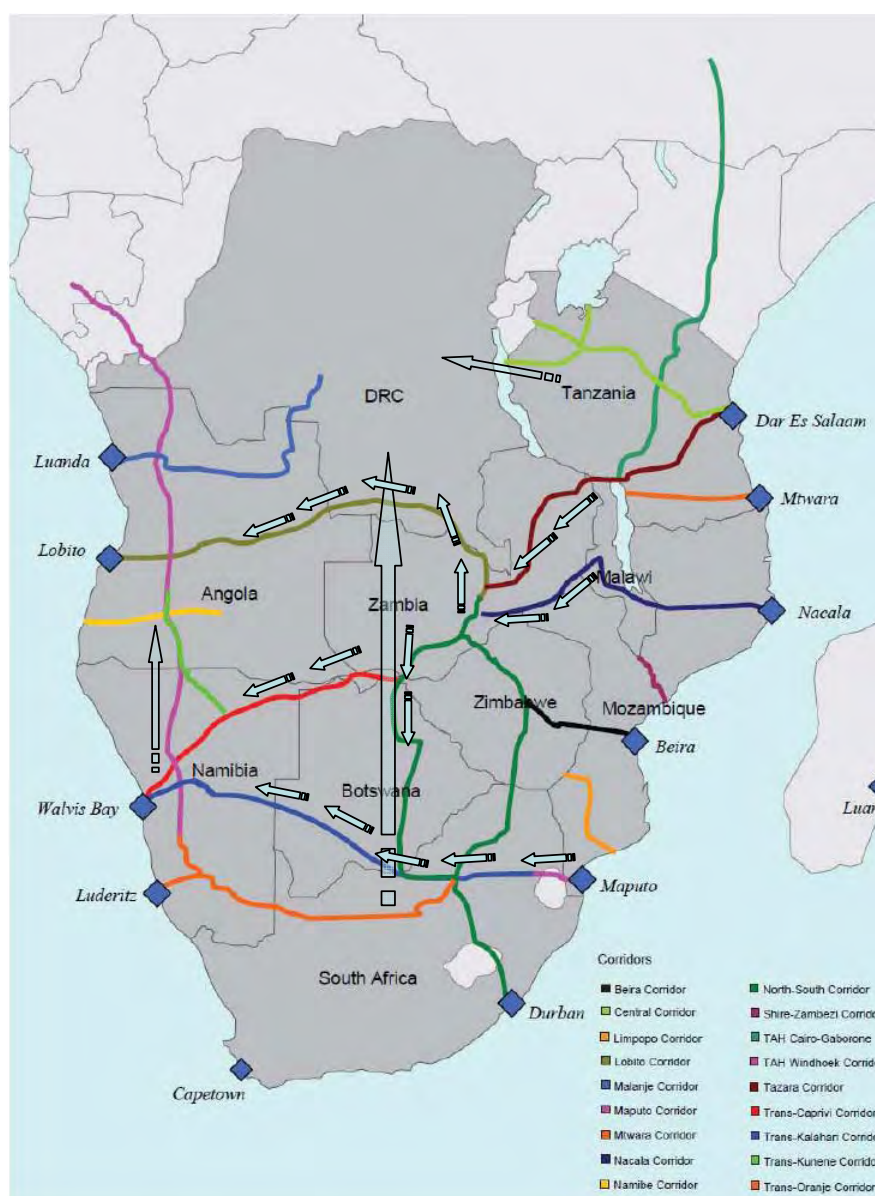


Figure 3.2.3 Potential Intra-Regional Trade Flow of Agricultural and Related Products

Concerning agricultural investment, there are many agendas to be addressed to harness agriculture's potential contribution to African development and to secure sustained agricultural growth, reduce poverty, and improve food security. Priority issues⁴⁴ include:

- (i) improving access to markets and developing modern market chains;
- (ii) achieving a large-scale and sustainable smallholder-based productivity revolution for African agriculture, with emphasis on helping subsistence farmers enter the market and fostering sustainable resource management (including developing efficient fertilizer markets and expanding lower-cost, small-scale irrigation and cost-effective larger schemes);
- (iii) achieving food security and improving livelihoods for those who remain as sustainable farmers, including improving the resilience of farming systems to climate change; and
- (iv) capitalizing on agricultural growth to develop the rural nonfarm sector (agricultural processing and value-adding activities).

Considering the situation where large-scale land acquisitions are occurring across the continent, the governments of Africa could productively work toward⁴⁵:

- (i) structuring land contracts to maximize the investment's contribution to sustainable development, and to make investors' decision making transparent;
- (ii) developing mechanisms to discourage purely speculative land acquisitions; and
- (iii) securing local land rights with the principle of free, prior, and informed consent, along with robust compensation regimes

Scenario c) Growth through Diversification and Advancement of the Industrial Structure

The Scenario *Countries within the region will diversify and advance their industrial structures by linking industrial development potential based on natural resources (comparative advantage) along the development corridors, and policies/systems to improve their production cost structures with the reduction of customs tariffs and distribution costs. The diversification and advancement of the industrial structure will be promoted by the diversification of the export market outside the region. This eventually leads to strengthened competitiveness in the global market, with securing efficient access to the trading ports of each country.*

Diversification and advancement of the industrial structure requires not only the development of physical infrastructure, but also the development of regulatory systems relating to trade facilitation, along with policy and systems support, to develop comparative advantages. These conditions may be well prepared in a package with facilities such as export processing zones (EPZs), free trade zones (FTZs), industrial parks, and large-scale farms. The linkage effect arising between/among companies (mainly established with foreign capital) located in such areas and small- and medium-sized enterprises in the surrounding area (and contracted-out suppliers) will contribute to the the advancement and diversification of the industrial structure. From this point of view, the following development projects may serve as cores of growth, although some overlap with those identified in growth scenario a)⁴⁶:

- Beluluane Industrial Park/Free Zone (adjacent to Mozal plant, Mozambique);
- Fertilizer terminal project (Beira Port, Dar es Salaam port);
- Nacala Special Economic Zone (e.g., Nacala port area industrial development, Nacala-a-Velha oil refining, tourism development);

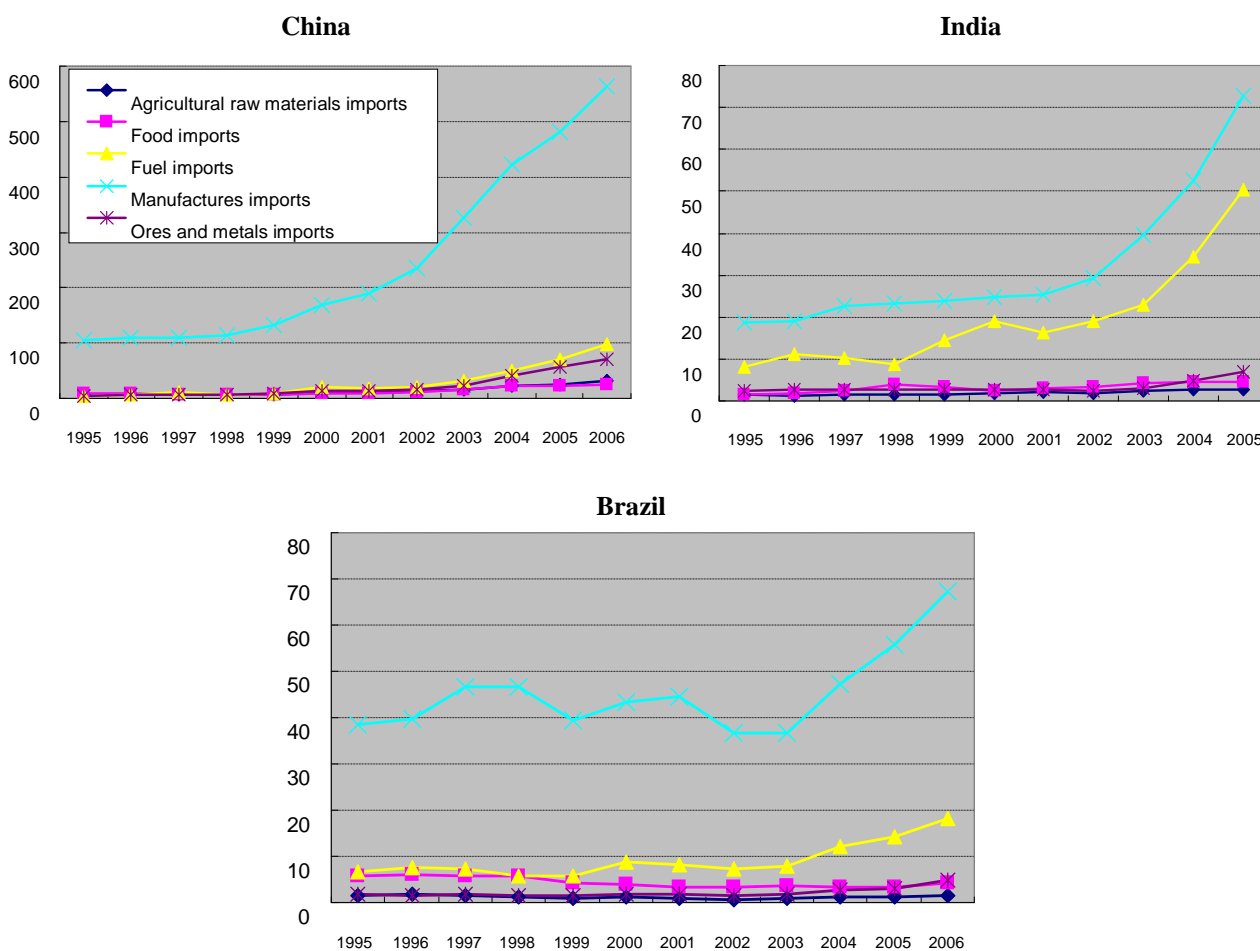
⁴⁴ World Bank, *World Development Report 2008: Agriculture for Development*.

⁴⁵ Cotula, Vermeulen, Leonard and Keely (2009).

⁴⁶ See Appendix for project information.

- Chambishi Multi-Facility Economic Zone (Ndola, Zambia);
- Jatropha Biodiesel Development (Dombe, Mozambique);
- Tropical Savanna Agriculture Development (Nacala Corridor, Mozambique);
- Horticulture Production Farms (e.g., vegetables, fruits, grains, oil seeds, Beira Corridor, Mozambique);
- Nsanje Inland Port development (southern Malawi); and
- Walvis Bay EPZ (Walvis Bay, Namibia).

As many EPZs/FTZs presently target the EU and US markets for their main export destinations⁴⁷, how this can be expanded to other markets, especially to the Asian market including China and India, and other emerging markets including Brazil, will be key to expanding and diversifying to serve export markets outside of the region. Figure 3.2.2, which presents trends of these three countries in terms of imports from the rest of the world, shows that the countries have experienced sharp increases in imports of manufactured products, as well as fuel (petroleum), with quite a few differences between countries. China also has been increasing its imports of ores and metals, and food, and the size of its imports far exceeds that of the other two countries.

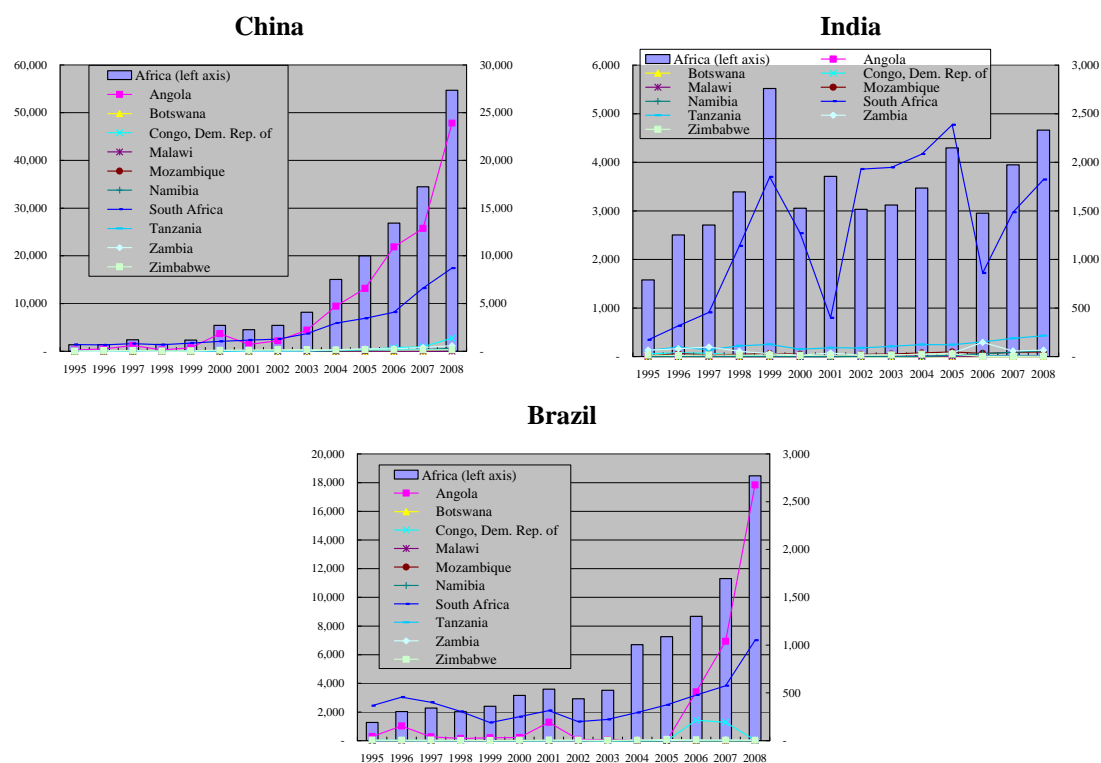


Source: Prepared from World Bank, *World Development Indicators*.

Figure 3.2.4 Import Trends of China, India, and Brazil (1995–2005/2006; in USD billion)

⁴⁷ Generalized system of preferences (GSP) schemes, such as the Everything but Arms (EBA) initiative of the EU and the African Growth and Opportunity Act (AGOA) initiative of the US, provide an incentive.

While imports by the three countries from Africa have also increased, imports from Southern Africa is generally limited to imports from Angola and South Africa (see Figure 3.2.3). Nevertheless, the general import trends as outlined above should be disaggregated by commodity level, to explore possibilities to expand exports from the region to these new markets.



Source: Prepared from IMF, *Direction of Trade Statistics*.

Figure 3.2.5 Import Trends of China, India, and Brazil from Southern African Countries (1995–2008; USD million)

Therefore, from the viewpoint of diversification and advancement of the industrial structure, target commodities for export to these emerging economies would include manufactured products, processed products of ores and metals, and food (the last-named two to be exported to China). The items broadly match the above categories, extracted from recent data on exports (of USD million dollars or more) from Southern African countries to China, India, and Brazil, and listed in Tables 3.2.9 to 3.2.11, respectively.

To China, most countries have had a substantial value of exports of crude materials (except for fuel), and some countries have also exported the following categories of goods: food (Mozambique, Namibia, South Africa, and Tanzania); beverages and tobacco (Malawi, South Africa, Tanzania, Zambia, and Zimbabwe); manufactured goods (Botswana, Mozambique, Namibia, South Africa, Tanzania, and Zambia). Major items included in the above categories by country various as shown below:

- Botswana: nickel, copper, and precious stones;
- Mozambique: wood, oil seed, wool, cotton, precious metals, vinyl, and textiles;
- Namibia: uranium, base metal, and copper products;
- South Africa: vegetable juice, nuts, wool, base metal, copper, iron, aluminum, pig iron, alloy steel, silver and platinum, and pulp and paper products;

- Tanzania: maize, leather, oil seed, vegetables, and tobacco; and
- Zambia: tobacco, copper and copper products, cotton, wood, and base metal products.

Export items to India also vary by country, as listed below:

- Botswana: precious metals;
- Malawi: vegetables;
- Mozambique: fruits and nuts;
- South Africa: coal, scrap iron, pig iron, base metal, wool, pulp and paper, precious metals, silver and platinum, aluminum, fertilizers, inorganic chemical elements, alloy steel, and sugar and molasses;
- Tanzania: vegetables, fruits and nuts, wool, cotton, precious metals, dyeing and tanning materials;
- Zambia: copper products, precious metals; and
- Zimbabwe: clothes, dyeing and tanning materials.

Only South Africa has exported much to Brazil, with its main exports including insecticides, plastics, organic chemicals, hydrocarbon, coal, base metal, iron plates, aluminum, pig iron, and auto parts.

Based on the foregoing examination, there may be a possibility of market expansion for agricultural products, mineral resources and their processed products, and manufactured products made with modest technologies. However, in order to penetrate into the market of these countries, which themselves are very competitive in terms of manufacturing cost and/or resources, it is necessary that the required “hardware” (infrastructure) and “software” (policies and regulations) be put into place to strengthen the competitiveness of Southern African countries.

Regarding Africa’s export opportunities to Asia, including to China and India, the World Bank conducted a quite insightful analysis in the report titled “Africa’s Silk Road”. Based on a thorough examination of trade patterns between Africa and these two “economic giants” in Asia, the world bank found that “Africa’s rapidly growing exports to China and India are not limited to fuels and other mineral and metal products”, but “labor-intensive raw or semi-processed agricultural commodities that are used for further processing either for industrial use (timber, cotton) or for consumer use (food products)” are also increasing.⁴⁸ The study examined four key factors that significantly affect trade and investment between Africa and Asia, among which, the factor related to “complementarities between investment and trade” sheds light on how Southern African countries can seek to address the severe constraints on penetrating into these emerging markets.⁴⁹

⁴⁸ Harry G. Broadman, *Africa’s Silk Road: China and India’s Economic Frontier*, World Bank, 2007.

⁴⁹ The other three factors identified were: (i) “at-the-border” trade and investment policies, (ii) “behind-the-border” (domestic) market conditions, and (iii) “between-the-border” factors including the development of cross-border trade-facilitating logical and transport regimes.

Table 3.2.9 Major Exports from Southern African Countries to China

Period	Trade Flow	Reporter	Partner	Commodity	Trade Value(mn\$)	Share*
2008	Export	Botswana	China	Crude materials, inedible, except fuels	180.47	19.1%
2008	Export	Botswana	China	Manufactured goods classified chiefly by material	53.19	1.7%
2008	Export	Malawi	China	Beverages and tobacco	19.96	3.4%
2008	Export	Malawi	China	Machinery and transport equipment	1.76	11.5%
2008	Export	Mozambique	China	Food and live animals	0.47	0.3%
2008	Export	Mozambique	China	Crude materials, inedible, except fuels	49.27	25.1%
2008	Export	Mozambique	China	Manufactured goods classified chiefly by material	1.60	0.1%
2008	Export	Namibia	China	Food and live animals chiefly for food	5.52	0.7%
2008	Export	Namibia	China	Crude materials, inedible, except fuels	145.61	14.0%
2008	Export	Namibia	China	Animal and vegetable oils, fats and waxes	1.07	13.2%
2008	Export	Namibia	China	Manufactured goods classified chiefly by materials	93.22	7.1%
2008	Export	Namibia	China	Machinery and transport equipment	1.23	0.4%
2008	Export	South Africa	China	Food and live animals	19.30	0.5%
2008	Export	South Africa	China	Beverages and tobacco	17.45	1.6%
2008	Export	South Africa	China	Crude materials, inedible, except fuels	2,796.41	26.3%
2008	Export	South Africa	China	Animal and vegetable oils, fats and waxes	1.54	1.4%
2008	Export	South Africa	China	Chemicals and related products, n.e.s.	210.06	3.7%
2008	Export	South Africa	China	Manufactured goods classified chiefly by material	1,021.93	3.8%
2008	Export	South Africa	China	Machinery and transport equipment	72.32	0.4%
2007	Export	United Rep. of Tanzania	China	Food and live animals	4.16	0.7%
2007	Export	United Rep. of Tanzania	China	Beverages and tobacco	1.06	1.0%
2007	Export	United Rep. of Tanzania	China	Crude materials, inedible, except fuels	145.09	33.3%
2007	Export	United Rep. of Tanzania	China	Manufactured goods classified chiefly by material	5.25	2.4%
2008	Export	Zambia	China	Beverages and tobacco	1.43	1.8%
2008	Export	Zambia	China	Crude materials, inedible, except fuels	66.04	7.9%
2008	Export	Zambia	China	Manufactured goods classified chiefly by material	218.24	5.9%
2007	Export	Zimbabwe	China	Beverages and tobacco	53.57	19.2%
2007	Export	Zimbabwe	China	Crude materials, inedible, except fuels	8.54	1.1%

*Share of the export value to China as a proportion of the total export value of the commodity.

Source: Compiled from UNcomtrade. Data on exports from Angola and the DRC are not available.

Table 3.2.10 Major Exports from Southern African Countries to India

Period	Trade Flow	Reporter	Partner	Commodity	Trade Value(mn\$)	Share*
2008	Export	Botswana	India	Manufactured goods classified chiefly by material	21.27	0.7%
2008	Export	Malawi	India	Food and live animals chiefly for food	2.68	1.9%
2008	Export	Mozambique	India	Food and live animals	21.87	14.7%
2008	Export	Mozambique	India	Crude materials, inedible, except fuels	4.89	2.5%
2008	Export	Mozambique	India	Manufactured goods classified chiefly by material	1.10	0.1%
2008	Export	South Africa	India	Food and live animals	8.32	0.2%
2008	Export	South Africa	India	Crude materials, inedible, except fuels	418.84	3.9%
2008	Export	South Africa	India	Mineral fuels, lubricants and related materials	654.35	9.2%
2008	Export	South Africa	India	Chemicals and related products, n.e.s.	764.53	13.4%
2008	Export	South Africa	India	Manufactured goods classified chiefly by material	372.80	1.4%
2008	Export	South Africa	India	Machinery and transport equipment	47.05	0.3%
2007	Export	United Rep. of Tanzania	India	Food and live animals	56.59	9.9%
2007	Export	United Rep. of Tanzania	India	Crude materials, inedible, except fuels	7.66	1.8%
2007	Export	United Rep. of Tanzania	India	Chemicals and related products, n.e.s.	1.81	3.1%
2007	Export	United Rep. of Tanzania	India	Manufactured goods classified chiefly by material	12.68	5.8%
2008	Export	Zambia	India	Manufactured goods classified chiefly by material	30.98	0.8%
2007	Export	Zimbabwe	India	Crude materials, inedible, except fuels	2.47	0.3%
2007	Export	Zimbabwe	India	Chemicals and related products, n.e.s.	1.09	2.3%

*Share of the export value to India as a proportion of the total export value of the commodity.

Source: Compiled from UNcomtrade. Data on exports from Angola and the DRC are not available.

Table 3.2.11 Major Exports from Southern African Countries to Brazil

Period	Trade Flow	Reporter	Partner	Commodity	Trade Value(mn)	Share*
2008	Export	Mozambique	Brazil	Beverages and tobacco	1.20	0.6%
2008	Export	South Africa	Brazil	Chemicals and related products, n.e.s.	135.89	2.4%
2008	Export	South Africa	Brazil	Manufactured goods classified chiefly by material	238.93	0.9%
2008	Export	South Africa	Brazil	Machinery and transport equipment	126.74	0.8%

*Share of the export value to Brazil as a proportion of the total export value of the commodity.

Source: Same as above.

Selected significant features of “complementarities between investment and trade” with respect to Africa–China/India relations include the following⁵⁰:

- (i) The sectors in Africa that exhibit more competition are not only able to attract more FDI including Chinese and Indian investment, but also are more effective in penetrating foreign markets through exports. In this way, domestic competition and international integration are mutually reinforcing. The lesson for African firms is that “success at home breeds success abroad”.
- (ii) Statistical analysis at the country level indicates that a greater inward stock of FDI is associated with higher exports. Chinese and Indian firms operating in Africa have

⁵⁰ Broadman (2007).

- been playing a significant role in facilitating these linkages between FDI and trade on the African continent.
- (iii) A firm-level survey indicated that Chinese businesses, which tend to rely both more heavily on vertical integration and less heavily on arms-length transactions with independent private firms, perceive the risks associated with commercial activity in Africa differently than do Indian (or European) firms.
 - (iv) There is also strong evidence that Chinese and Indian firms are vehicles for the transmission of advances in technology and skills, as well as new equipment, to the African continent. This is the classic case of spillovers in the host market that often accompany flows of FDI.
 - (v) China and India are rapidly becoming important source markets for imports of sophisticated capital goods for firms producing on the African continent,⁵¹ regardless of firm nationality. Price advantage appears to be a major factor.

This may be considerably different from the popular image of Africa-China trade and investment relations. The surge of Chinese product imports may be seen as threatening, and indeed has led to the near collapse of local industries such as textile production in Africa. The study also pointed out that Chinese businesses in Africa pursue business strategies that yield them greater control up and down the production line, resulting in enclave types of corporate profiles, with somewhat limited spillover effects. However, this leads to the conclusion that the use of Chinese and Indian FDI to promote and diversify African exports to Asia and other regions may be plausible. The study also identified the following “behind-the-border” factors causing high transaction costs even for China and India⁵²:

- (i) poor quality of infrastructure services (power supply, telephone services, internet access);
- (ii) inefficient factor markets (lack of skilled labor, rigidities in the domestic labor market, and limited access to local finance);
- (iii) unfavorable regulatory regimes; and
- (iv) weak governance.

When these conditions were improved, the business climate for investors as indicated in Chapter 2, not only from China and India, but from all regions including Africa, will be improved as well. From the viewpoint of transport infrastructure development, development of corridors, ports, and other related infrastructure along the eastern part of the region may be expected to contribute to trade and investment with China and India, while development along the western part of the region would be better positioned to contribute to relations with Europe and the Americas, including Brazil. Then the “Growth Belts” involving development corridors with diversified and advanced industries will go beyond the African continent to be linked with Asia, Europe and Americas.

⁵¹ The following examples were introduced: (i) new Chinese-manufactured tower cranes and aviation control pumps newly built to custom specifications were recently purchased by firms in South Africa; and (ii) India has been a key source market for new road-paving equipment in Ghana, new water-purification systems in Senegal, and new automated nut-processing machines in Tanzania. Moreover, in some cases, Africa has been a source market for capital goods exports to China and India, resulting in “reverse technology transfers”.

⁵² Broadman (2007).