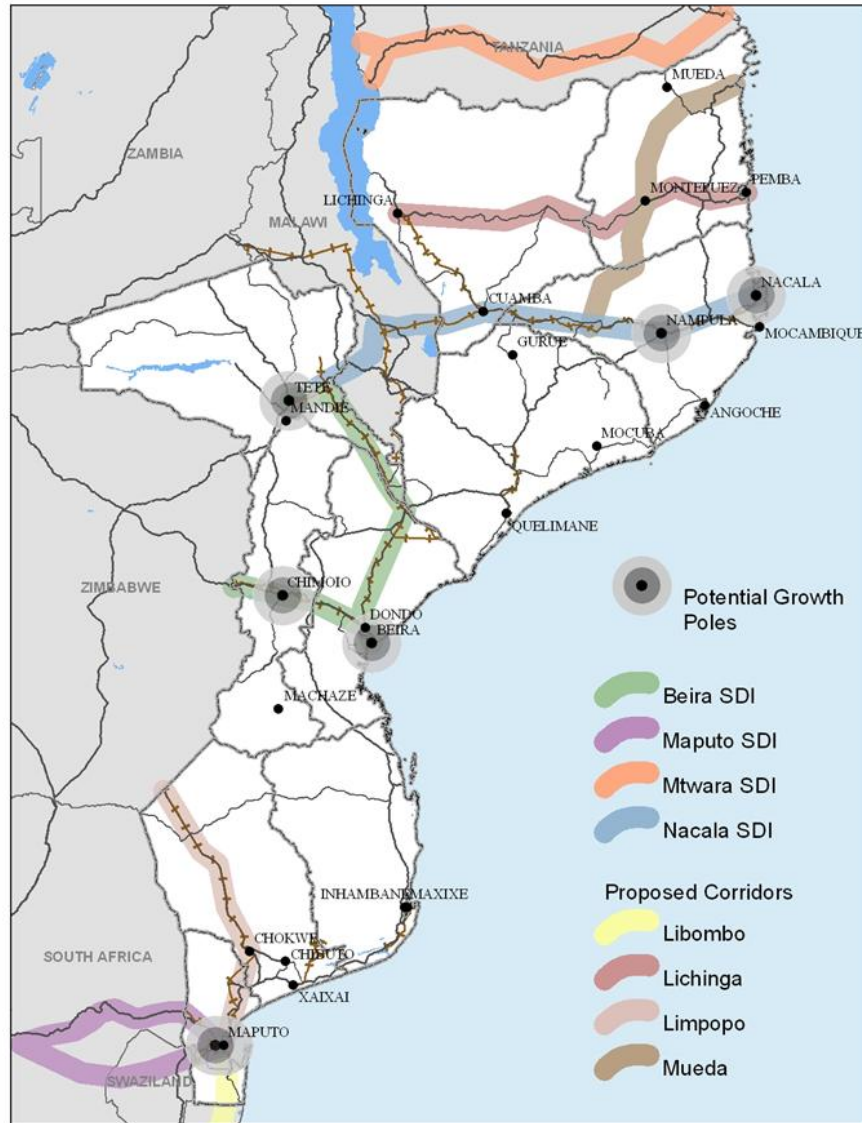


# Prospects for Growth Poles in Mozambique

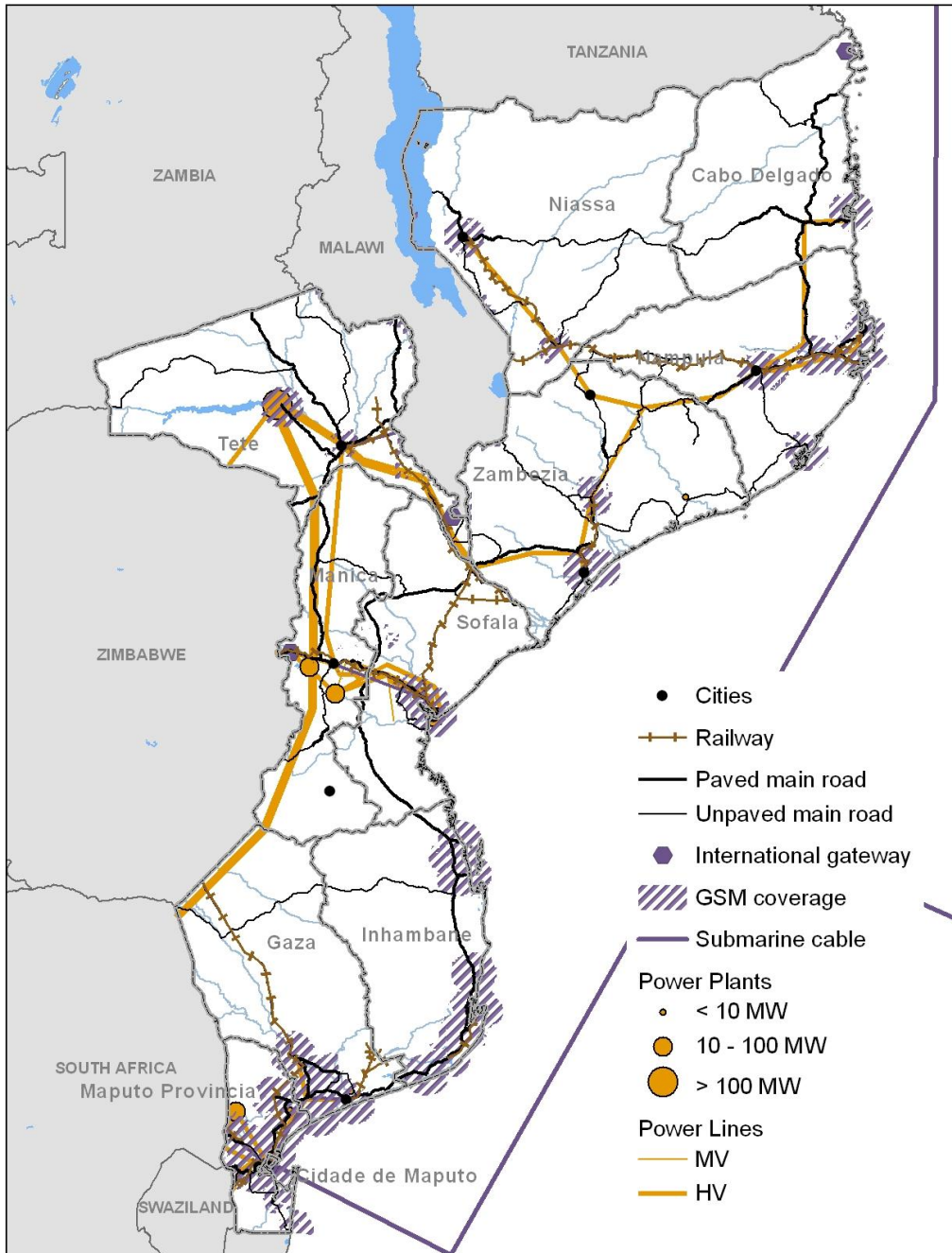
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### Select infrastructural assets in Mozambique





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The findings and views expressed here are exclusively those of the World Bank and do not necessarily represent the views of the Government of Mozambique.



## GLOSSARY OF TERMS

ACGF	Africa Catalytic Growth Fund
ACIANA	Association of Industry, Commerce and Agriculture
ADA	Austrian Development Agency
ADB	African Development Bank
ADC	Austrian Development Cooperation
ADM	Mozambique Airports ( <i>Aeroportos de Moçambique</i> )
AFD	French Development Agency
AICD	Africa Infrastructure Country Diagnostics
AIDS	Acquired Immune-Deficiency Syndrome
APL	Adaptable Program Loan
APRM	Africa Peer Review Mechanism
BAGC	Beira Agricultural Growth Corridor
BCI	Commercial Investments Bank ( <i>Banco Comercial de Investimentos</i> )
CCFB	Beira Railroad Company
CDT	Technological Development Centre
CEPAGRI	Agriculture Promotion Center ( <i>Centro de Promoção da Agricultura</i> )
CFM	Mozambique Railways ( <i>Caminho de Ferro de Moçambique</i> )
CINAC	Nacala Cements ( <i>Cimentos de Nacala</i> )
CLYD	Coconut Lethal Yellowing Disease
CMM	Maputo City Council
CNELEC	National Electricity Advisory Council ( <i>Concelho Nacional de Electricidade</i> )
COCEP	Commission for Studies and Projects
CPI	Center for Investment Promotion
CPS	Country Partnership Strategy
CTA	Confederation of Business Associations
DANIDA	Danish International Development Agency
DC	Development Corridor
DPFP II	National Decentralized Planning and Finance Program
DRC	Democratic Republic of Congo
DUAT	Land Use Rights ( <i>Direto de Uso e Aproveitamento da Terra</i> )
ECA	Strategy for the Promotion of Agriculture
EDBM	Economic Development Board of Madagascar
EDM	Energy Department of Mozambique ( <i>Electricidade de Moçambique</i> )
EIA	Environmental Impact Assessment
EITI++	Extractive Industries Transparency Initiative Plus Plus
EPE	Strategic Plan for Roads
ESAN	Strategy for Food Security and Nutrition
EU	European Union
FDI	Foreign Direct Investment
FEED	Front End Engineering and Design
FIAS	Foreign Investment Advisory Service

FIPAG	Water Supply Assets and Investment Fund
FUNAE	National Energy Fund ( <i>Fundo Nacional de Energia</i> )
GAPASU	Urban Water Supply and Sanitation Office
GAZEDA	Special Economic Zones Authority ( <i>Gabinete das Zonas Económicas de Desenvolvimento Acelerado</i> )
GDP	Gross Domestic Product
GoM	Government of Mozambique
GPOB	Global Partnership on Output-Based Aid
GPZ	Zambezi Valley Planning Office
GSM	Global Systems for Mobile Communications
HIV	Human Immunodeficiency Virus
IBRD	International Bank for Reconstruction and Development
ICA	Investment Climate Assessment
IDA	International Development Association
IFC	International Finance Corporation
IG2P	Madagascar Integrated Growth Poles Project
IMF	International Monetary Fund
INE	Institute for National Sciences
IPEME	Institute for the Promotion of Small and Medium Enterprises
IPEX	Institute for Export Promotion
IRCON	Indian Railway Construction International
IT	Information Technology
JICA	Japan International Cooperation Agency
KFW	German Development Bank ( <i>Kreditanstalt für Wiederaufbau</i> )
KPMG	Klynveld Peat Marwick Goerdeler
LPI	Logistics Performance Index
MCC	Millennium Challenge Corporation
MCLI	Maputo Corridor Logistics Initiative
MDC	Maputo Development Corridor
MDG	Millennium Development Goals
MF	Ministry of Finance
MIC	Ministry of Industry and Commerce
MIGA	Multilateral Investment Guarantee Agency
MoU	Memorandum of Understanding
MPD	Ministry of Planning and Development
MPDC	Maputo Port Development Company
MSME	Micro, Small and Medium Enterprise
MTC	Ministry of Transport and Telecommunications
NEPAD	New Partnership for Africa's Development
NWDP	National Water Development Program
OSBP	One-Stop Border Post
PAD	Project Appraisal Document
PAPA	Action Plan for Food Production

PARPA II	Mozambique's Action Plan for the Reduction of Absolute Poverty for 2006–09
PDM	Municipal Development Project
PEDSA	Plan for the Development of the Agricultural Sector
PEP Africa	Private Enterprise Partnership for Africa
PODE	Private Sector Development Project
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
PRISE	Integrated Road Sector Program
PROA	Agricultural Productivity Program
PROAB	Program for Business Expansion
PROATUR	Program for Tourism Development
ProMaputo	Maputo Municipal Development Program
PROMER	Rural Markets Promotion Programs
PRONEA	National Agricultural Extension
PRSP	Poverty Reduction Strategy Paper
PSD	Private Sector Development
RBS	Rural Development Strategy
UTES	Rail India Technical and Economic Services
RSDIP	Regional SDI Program
SDC	Swiss Agency for Development and Cooperation
SDI	Spatial Planning Initiatives
SDR	Special Drawing Rights
SENAI	National Service of Industrial Education ( <i>Serviço Nacional de Aprendizagem Industrial</i> )
SEZ	Special Economic Zone
SIDA	Swedish International Development Cooperation Agency
SME	Small and Medium Enterprise
SSA	Sub-Saharan Africa
SWAP	Sector Wide Approach
TA	Technical Assistance
TRAC	Trans African Concessions
TTL	Task Team Leader
UCODIN	Coordination Unit for Integrated Development
UNCTAD	United Nations Conference for Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
WASIS	Water Sector Services and Institutional Support
WB	World Bank
WDR	World Development Report



# Chapter 1 – Implementing an Integrated Growth Poles Strategy in Mozambique

## INTRODUCTION

This report is the output of a non-lending Technical Assistance (TA) operation in support of the dialogue on growth poles in Mozambique. The objective of the TA is to assist the Government in designing growth pole strategies, enabling policies, and interventions, based on lessons learned from growth pole experiences in other countries. This report constitutes the preliminary feasibility assessment of the potential for growth poles in a number of subregions of the country.

The study team compiled data and conducted interviews in Mozambique with key public and private sector stakeholders, as well as development partners in Beira, Maputo, Nampula and Tete, in December 2009. The list of persons met is shown in Annex A. Given the time and resources available, the study team focused on the subregions with the highest concentration of private investments; *i.e.* Beira, Maputo, Nampula and Tete. Other potential growth pole areas such as Inhambane, Niassa and Zambezia may be assessed in a future stage.

This report is structured as follows: Chapter 1 provides the context and objectives of a growth poles strategy for Mozambique. It summarizes the assessments for each potential growth pole, and identifies complementarities with ongoing programs and national-level initiatives. It also suggests next steps, drawing on the conclusions and recommendations of the other chapters. Chapter 2 then presents the definition and economic rationale for a growth poles strategy, summarizes its economic and spatial planning aspects, and provides examples of successful growth pole strategies in other regions and countries. Chapters 3 to 6 provide detailed assessments of the Beira, Maputo, Nampula and Tete subregions, with a focus on existing and planned investments, opportunities and challenges, and proposed interventions.

## CONTEXT AND OBJECTIVES OF A GROWTH POLES STRATEGY

### 1. Supporting the Government's program for shared and equitable growth

Mozambique is a post-conflict country that has successfully embarked on reconstruction and economic recovery, growing at an average annual rate of 8 percent between 1996 and 2008 (although growth slowed to an estimated 4.3 percent in 2009 due to the global financial crisis). The Government has made significant progress in reducing poverty—from 69 to 54 percent between 1997 and 2003, bringing almost 3 million people out of extreme poverty—through political and economic reforms that have brought macroeconomic stability and low inflation. Mozambique is on track, or has the potential, to achieve 12 of the 21 Millennium Development Goal (MDG) targets, including those linked to poverty, under-five mortality, maternal mortality, malaria, and an open trading and financial system (National MDG Progress Report 2008).

The Government's Action Plan for the Reduction of Absolute Poverty for 2006–09 (PARPA II) emphasizes private sector-led growth and greater productivity. In particular, it focuses on district-based development, creation of an environment favorable to growth of the nation's productive sectors, improvement of the financial system, and measures to help micro, small and medium-size enterprises (MSMEs) flourish in the formal sector. The economic development pillar of PARPA II concentrates on improving the investment climate through infrastructure development and business environment reforms. This pillar also emphasizes inter-sector linkages in order to ensure higher productivity in agriculture and related sectors. A key element of PARPA II is growth and employment driven by the private sector—especially by maximizing the linkages with and benefits from megaprojects and large infrastructure investments. These priorities are reflected in both the Government's current Five-Year Development Program and the World Bank's Country Partnership Strategy (2008–2011), and are expected to be reaffirmed in the next PRSP (2011–1015), which is under preparation.

Growth has been driven by a number of investment projects in agriculture, energy, infrastructure rehabilitation, manufacturing and mining (especially aluminum production), as well as by large inflows of overseas development assistance (ODA). In 2008, net inflows of foreign direct investment (FDI) and ODA were 6.0 percent of GDP and 20.3 percent of GDP respectively.<sup>1</sup> Mozambique has benefited from so called megaprojects—*i.e.* investments equal or larger than US\$500 million—but they account for less than 2 percent of urban private sector employment. The challenge is therefore to enhance job creation and technology transfers associated with these large investments. In 2007-2009, the total value of investment projects authorized by Mozambique's Investment Promotion Agency (CPI) amounted to \$14.9 billion. If a significant proportion of these projects are realized and well managed, they would have the potential to transform the socioeconomic environment in Mozambique and create many thousands of new jobs. However, all authorized investment projects are not implemented while others are realized over several years' time (Table 1).

**Table 1. Authorization and implementation of authorized industrial projects in 2005-2009**

	2005	2006	2007	2008	2009	Total
1. Number of authorized projects	38	34	66	57	60	255
2. Number of implemented projects	9	12	13	9	3	46
3. Number of projects yet to be implemented	29	22	53	48	57	209
4. Share of projects that have been implemented (%)	24	35	20	16	5	18

Source: CPI and DNI (2010), provisional data.

Maputo has traditionally had an overwhelming concentration of growth and jobs but this has started to change. In 1990–2003, 75 percent of FDI in Mozambique was concentrated in Maputo City and Maputo Province. In 2005–2009, only 12 percent of the value of CPI-authorized investment projects was concentrated in Maputo Province. Most current and proposed new large investments are located in provinces and districts far from Maputo, which are poorer and have significantly lower endowments of infrastructure and capital stock. Provinces such as Tete and



Nampula face severe institutional and human capital constraints, while having to manage the socioeconomic impacts of the large investments and support local economic development.

These provinces are well positioned to benefit from an integrated growth poles strategy in line with the Government's strategy of decentralization and national and regional integration, which aims to ensure sustainable and equitable growth throughout the country, especially the interior provinces.

## 2. Tackling Critical Development Challenges at the Sub-National Level

With the country's annual per capita income (PPP) at US\$886 (2009) and more than half the population still below the poverty line, the Government faces considerable social and economic challenges. These include:

- **Youth unemployment and poverty.** To maintain social and political stability, generating employment opportunities for young people—more than 50 percent of the population of 22 million—is a key priority. Youth need to acquire the education and skills to benefit from the economic opportunities generated by the new investments.
- **The high prevalence of HIV infections.** With an adult prevalence rate of about 12.5 percent, HIV/AIDS is a major human development issue, which must be addressed through prevention, treatment, and inclusion. The establishment of large mines in rural areas may have a negative impact on local health, unless initiatives are undertaken to reduce the risk of contagion.
- **Rural-urban migration.** An estimated 37 percent of the total population lives in urban areas, and rural-urban migration is a challenge as the urbanization rate climbs to 4.1 percent (2005–2010 estimate). For example, the population of Maputo province increased by 50 percent in 1997–2007.<sup>2</sup> While urbanization could have positive agglomeration effects, urban planning, infrastructure, and service delivery must be strengthened.
- **Basic infrastructure and services.** The provision of physical and social infrastructure and services (water, electricity, communications, sanitation, transportation, education, and health) is a major priority for the economic and social development of the population.
- **Management of natural resources.** The capacity to manage natural resources sustainably and the environmental and social impacts of resource-based industries is a key challenge for government at all levels.
- **Service delivery capacity and governance.** There is a need to strengthen management, coordination, service delivery, and implementation capacity at the local level, including enhancing oversight and accountability. The transparent and effective management of revenues from the mining industry is critical to ensure that the benefits to the local communities are equitable and sustainable.

An integrated growth poles strategy can address these challenges through targeted public and private sector investments planned and coordinated with the participation and strong ownership of local stakeholders.

### **3. Strengthening Subnational Economic Competitiveness**

Despite efforts to improve the climate for private investments, Mozambique still ranks poorly on international indicators of economic competitiveness and business environment. In the World Bank/IFC *Ease of Doing Business Indicators 2010*, Mozambique ranks 135 out of 183 countries, compared to 34 for South Africa and 45 for Botswana. Mozambique ranks especially poorly in dealing with construction permits, employing workers, registering property, trading across borders, and enforcing contracts.

Based on the *Global Competitiveness Report 2009–2010* issued by the World Economic Forum, Mozambique ranks 129 out of 133 countries for economic competitiveness (above only Mali, Chad, Zimbabwe, and Burundi). According to that report, the five most difficult factors in doing business are access to finance, corruption, inefficient government bureaucracy, inadequate infrastructure, and a poorly educated workforce.

Similarly, the 2007 *World Bank Enterprises Survey* reveals that the top five constraints to firms in Mozambique are access to finance, practices of the informal sector, electricity, tax rates, and crime, theft and disorder. These indicators confirm that strengthening economic governance and enhancing competitiveness are key challenges to progress.

The concerns are sometimes exacerbated in the provinces outside Maputo. In Nampula, for example, it takes more than three months for investors to obtain a license from the Ministry of Commerce. In both Nacala and Tete, businesses complain about the arbitrary fines imposed by Ministry of Labor officials for violations of labor regulations. The critical shortage of technical skills is also a major constraint to local economic development throughout the country.

As the experience with the Madagascar Growth Poles Project has shown, addressing business environment constraints at the subnational level in coordination with national agencies could lead to stronger ownership of the reform process and better outcomes.

### **4. Accelerating the Outcomes of Spatial Development Initiatives**

Because of its unique geographical location and natural assets, Mozambique—perhaps more than any other country in Sub-Saharan Africa—has been the focus of a number of spatial development initiatives (SDI) geared towards regional integration. The spatial development initiatives in southern Africa (sponsored by South Africa) began in 1995 with the Maputo Development Corridor (MDC). The overall SDI approach seeks to promote trade and investment-led growth along *development corridors*, focusing on large anchor projects, normally mineral based, and optimizing the investments in infrastructure, encouraging value-added activities, and enhancing the competitiveness of regional economies. In the case of the MDC, the key drivers have been

coal from South Africa to generate power for the Mozal aluminum smelting investment, and gas from Mozambique for the Sasol petrochemical complex.

The SDI approach also attempts to spread the benefits of economic growth from the large investments along the development corridors through *densification* (provision of feeder infrastructure to support smallholder agriculture producers) and *deepening* (forging backward and forward linkages between the large investments and local small and medium enterprises, SMEs).

A Regional SDI Program (RSDIP) was launched in the late 1990s and became part of the overall approach of the New Partnership for Africa's Development (NEPAD). In 2007, NEPAD and the African Development Bank (AfDB) adopted development corridors as a tool for configuring, prioritizing, and promoting inter-related infrastructure and large-scale economic investments in defined geographic areas. Then in March 2010, the Mozambique Ministry of Transport and Telecommunications (MTC) set up the Coordination Commission for Studies and Projects (COCEP) to build sustainable institutional capacity for spatial development planning within the government and to elaborate a series of concrete proposals for spatial development initiatives. COCEP will be supported through the World Bank Spatial Development Planning TA Project for which this report is the preliminary feasibility assessment.

The major development corridors in Mozambique include the Beira Corridor, the Maputo Corridor, the Mtwara Corridor, and the Nacala Corridor (based on a 2004 agreement among Malawi, Mozambique, Tanzania and Zambia). Other proposed corridors include Lichinga, Limpopo, Lubombo and Muenda, some of which will also be supported under the proposed World Bank TA Project.

Other ongoing spatial initiatives include the Zambezi River Basin Integrated Planning Project, supported by the World Bank and other donors under the Zambezi Development Authority (GPZ); and the World Bank-funded Cabo Delgado and Nampula Province spatial planning case studies covering four districts: Palma and Mocimboa da Praia in Cabo Delgado Province, and Nacala-Porto and Mossuril in Nampula Province. In addition, the Aga Khan-supported East African Coast/Rovuma Basin Spatial Development Planning Project, bridging southern Tanzania and northern Mozambique (stretching from Kilwa in Tanzania to Ilha da Mocambique in Mozambique), encompasses about 750 km of terrestrial, coastal, aquatic, and marine environments, including Quirimbas National Park.

While the Maputo Corridor has enjoyed some success through the Mozal and Sasol investments, the other expected impacts of the SDI approach, in terms of densification and deepening, have yet to materialize for Mozambique. While some infrastructure investments in the Beira and Nacala corridors, such as the rail network, are being implemented, the anticipated private investments for other projects have yet to fully materialize, although planning for the corridors has been going on since the 1960s. Given the strong demand from private investors, the conditions are now right for an accelerated growth poles approach to focus on selected subregions within these corridors to pilot innovative economic development models.

The Africa Infrastructure Country Diagnostics (AICD) found that Mozambique will require about US\$1.7 billion a year in infrastructure investments (power, transport, water and sanitation) over the next decade to catch up with the rest of the developing world. Current infrastructure investments, from donors and the private sector, amount to about US\$0.7 billion a year. However, there remains an efficiency gap of US\$0.4 billion a year. Challenges include insufficient maintenance of roads and cost recovery issues, under-pricing and system losses in power utilities, hidden costs and misaligned subsidies in water utilities. A growth poles approach could seek to maximize the efficiency gains from infrastructure spending by creating synergies with existing projects, forging public-private partnerships, and optimizing the utilization of new infrastructure by targeting high-growth areas.

The overall goals of an integrated growth poles strategy for Mozambique are therefore to promote private sector-led growth and employment while maximizing sustainable and equitable growth, especially in the underserved provinces. The specific objectives are to (i) enhance sub-national economic competitiveness through business environment reforms; (ii) nurture and develop local and indigenous enterprises by fostering linkages with large and foreign investments; (iii) strengthen local institutional capacity; (iv) upgrade urban infrastructure; and (v) strengthen economic governance and improve management of social and environmental impacts. Table 2 summarizes these objectives and the potential interventions to attain them.

**Table 2. Objectives of an Integrated Growth Poles Strategy for Mozambique**

Objectives	Potential interventions
Enhance sub-national competitiveness	<ul style="list-style-type: none"> <li>• Rationalize the roles and functions of various agencies and stakeholders (CPI, IPEX, IPEME, provinces, municipalities, ministries) responsible for supporting private sector development</li> <li>• Roll out business environment reforms at the provincial level</li> <li>• Strengthen capacity for service delivery to private sector and meaningful private-public dialogue</li> </ul>
Develop local/indigenous enterprises by fostering business linkages between large investments and MSMEs	<ul style="list-style-type: none"> <li>• Establish public-private partnerships in support of MSME development through programs such as skills development, business development services, business incubation services, outgrower schemes, and access to finance</li> </ul>
Strengthen local institutional capacity for planning, coordination, management, and service delivery	<ul style="list-style-type: none"> <li>• Establish a regional stakeholders platform for participatory planning, involving the private sector and civil society groups</li> <li>• Provide technical assistance and capacity building at the provincial and municipal levels to improve management capability; regional planning and implementation; coordination of activities of various implementing agencies and development partners; revenue collection and management; and delivery of municipal services, including with private participation</li> </ul>

Upgrade urban infrastructure	<ul style="list-style-type: none"> <li>• Target investments in urban infrastructure (road, water and sanitation, electricity, ICT services) through PPPs</li> <li>• Expand coverage of basic infrastructure and community services to underserved urban communities</li> <li>• Strengthen capacity for planning and regulation of infrastructure development</li> </ul>
Strengthen local governance and management of environmental and social impacts of large investments	<ul style="list-style-type: none"> <li>• Establish systems for transparency and citizen oversight, such as participatory budgeting, citizen scorecards, improved governance mechanisms, and awareness and training</li> <li>• Strengthen capacity at the local level for monitoring and management of social and environmental impacts in partnership with the private sector, including implementation of resettlement plans, income restoration programs, and other social development initiatives</li> <li>• Support implementation of EITI++ initiatives at the sub-national level, including mechanisms for transparent management of royalty and other revenue streams from megaprojects</li> </ul>

## ASSESSMENT OF POTENTIAL GROWTH POLES IN MOZAMBIQUE

The assessment carried out for this feasibility study covers three subregions within the major SDIs— the Beira Corridor, including Tete Province; the Maputo Corridor; and the Nacala/Nampula Corridor. These subregions were selected based on the levels of private investment and potential growth opportunities. Other spatial development initiatives may be assessed in a subsequent phase. The assessment of potential growth poles within these SDIs was based on the following criteria:

- Economic growth potential
- Current and proposed private investments
- Development challenges
- Current and proposed development partner interventions

The findings of this assessment are summarized in Table 3.

**Table 3. Assessment of Potential Growth Poles**

	<b>Maputo Corridor</b>	<b>Beira Corridor</b>	<b>Nacala Corridor</b>
<b>Potential growth poles and growth drivers</b>	<p><i>Maputo Province</i> (and <i>Maputo City</i>) has the largest share of FDI and concentration of large investments; key sectors are manufacturing, mineral-based industries, construction, and services</p> <p>Pop: 1.2 million; the fastest growing province in Mozambique</p>	<p><i>Tete Province</i> has an increasing concentration of large investments in mining and energy</p> <p>Pop: 1.8 million and rapidly increasing due to labor migration</p> <p><i>Beira</i> has the potential to develop into a major port city with investments in agribusiness, manufacturing, and logistics to support mining exports from Tete</p> <p>Pop: 0.5 million</p> <p><i>Chimoio</i> is a major agricultural center and has potential to benefit from linkages to Zimbabwe once conditions there improve</p> <p>Pop: 0.2 million</p>	<p><i>Nampula Province</i> is the most populated in Mozambique, with increasing investments in mining and agribusiness and potentially in tourism</p> <p>Pop: 4.1 million</p> <p><i>Nacala Special Economic Zone</i> (established in 2009, covering an area of 1,300 sq.km with) is attracting investor interest in manufacturing, mineral-based industries, services, fisheries and agribusiness, and tourism</p> <p>Pop: 0.3 million</p>
<b>Key development challenges</b>	<p><i>Business environment constraints</i> include lack of access to finance for SMEs; inadequate infrastructure; trade logistics/customs inefficiencies; inadequate cross-border rail transport capacity; and weak skills base and institutional capacity</p> <p><i>Matola Industrial Zone/Beluluane Industrial Park</i> functioning below potential</p> <p><i>Lebombo/Ressano Garcia</i> one-stop border post still not operational; multiple public agencies with conflicting/overlapping mandates involved in investment promotion and facilitation</p> <p>Inadequate service delivery</p> <p>Risks of severe climate change impacts due to coastal inundation</p>	<p><i>Business environment constraints</i> include inadequate infrastructure, lack of access to land for investors, skills shortages; inefficient service delivery for investors; lack of linkages between large investments and local SMEs; inefficient trade facilitation</p> <p>Inadequate local government capacity to plan and coordinate development; regulate infrastructure investments; manage mining revenues and implement EITI++; and manage social and environmental impacts of large projects</p>	<p><i>Business environment constraints</i> include inadequate infrastructure, low productivity of small-scale agricultural producers, and low levels of skills and labor productivity</p> <p>The legal, institutional, and management arrangements for the Nacala SEZ need to be clarified and strengthened</p> <p>Uncoordinated development, including weak coordination of donor activities and lack of coordination between provincial and central authorities</p> <p>Weak governance and corruption</p>

	<b>Maputo Corridor</b>	<b>Beira Corridor</b>	<b>Nacala Corridor</b>
<b>Government priorities</b>	<i>Five-Year Municipal Plan (2009-13) and Provincial Plan: governance, local economic and social development, infrastructure, employment generation</i>	<i>Tete Provincial Development Plan (2007–11): Tete Municipality Governance Program (2009–14): infrastructure development, support for private investment, addressing skills shortages, strengthening the capacity of local government</i>  <i>Strategic Plan for Municipal Development of Beira: urban infrastructure, coastal protection, support for private investment</i>	<i>Nampula Provincial Strategy: economic growth, participatory government, infrastructure development, environmental protection, development of human and social capital</i>
<b>Authorized investment projects by CPI (2005–09)</b>	US\$2 billion	Tete: US\$1.8 billion Sofala: US\$700 million Manica: US\$377 million	US\$7 billion
<b>Mechanisms for public-private interaction</b>	Maputo Corridor Logistics Initiative	Beira Agricultural Growth Corridor Active business associations in Beira	UCODIN established at provincial level to coordinate public agencies and services to the private sector
<b>Development partner programs</b>	Heavy concentration of donor programs supporting financial and private sector development  IFC Mozlink SME linkages program  World Bank ProMaputo (Municipal Development Program) under implementation and second phase under preparation	Very limited donor programs in Tete  Concentration of donor programs in Sofala and Manica focused on provincial and municipal capacity building, business environment reforms, and agricultural programs	An array of donor programs in agriculture and agribusiness (USAID and MCC); World Bank support for skills development in partnership with the private sector  USAID program for tourism sector planning and development along the Northern Arc  African Development Bank, MCC, and World Bank support for infrastructure development  Capacity building at the level of the province and municipality

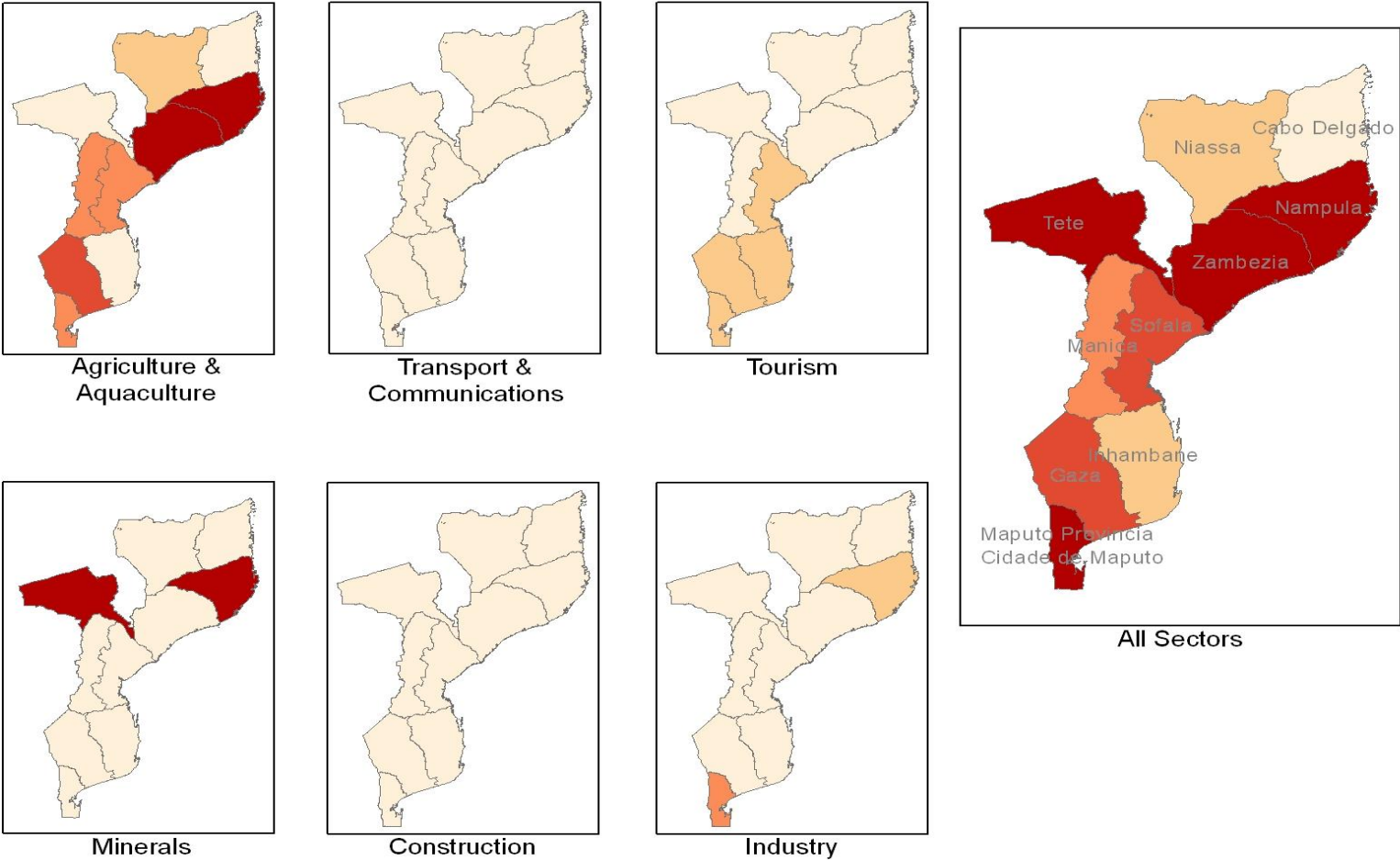
	<b>Maputo Corridor</b>	<b>Beira Corridor</b>	<b>Nacala Corridor</b>
<b>Prospects for growth pole interventions</b>	Maputo Province is a natural growth pole; there are already significant levels of public investments underway	<p>Tete has the best potential for growth pole interventions given the strong interest of large private investors, the immediate development demands, and expected revenue flows in the near future</p> <p>Beira has also good potential as a growth pole, with the investments in the port and rail transport; the Beira Agricultural Growth Corridor also offers good prospects for interventions</p> <p>Chimoio seems to have longer-term prospects</p>	Nampula Province has excellent prospects for growth pole interventions, given the level of private investments in the pipeline and the development demands linked to implementation of the Nacala SEZ



Based on this assessment, the best prospects for piloting a growth pole development strategy in Mozambique appear to be in Tete and Nampula provinces. Maputo City, together with Maputo Province, is already a well-developed growth pole and has further potential for growth in the context of the Matola industrial zone and the one-stop border crossing facility. Beira also offers potential as a growth pole, especially in the context of the Beira Agricultural Growth Corridor initiative.

Given the levels of existing public and private investments and the concentration of donor activity (Figures 1 and 2), Nampula and Tete provinces (and possibly the Beira Agricultural Growth Corridor initiative) may be better suited to pilot the growth poles strategy in the context of decentralization. Further analysis could determine the exact geographical delineation of the growth poles in each of these provinces, based on the location of investments and the required infrastructure investments, as well as spatial planning considerations. Other provinces such as Inhambane, Niassa and Zambezia, and could also be covered in this assessment.

**Figure 1. Concentration of CPI-Authorized Investments in Mozambique in 2005-2009, by Province and Sector**



**Figure 2. Concentration of CPI-Authorized Investments in Mozambique in 2005-2009, by District and Sector**

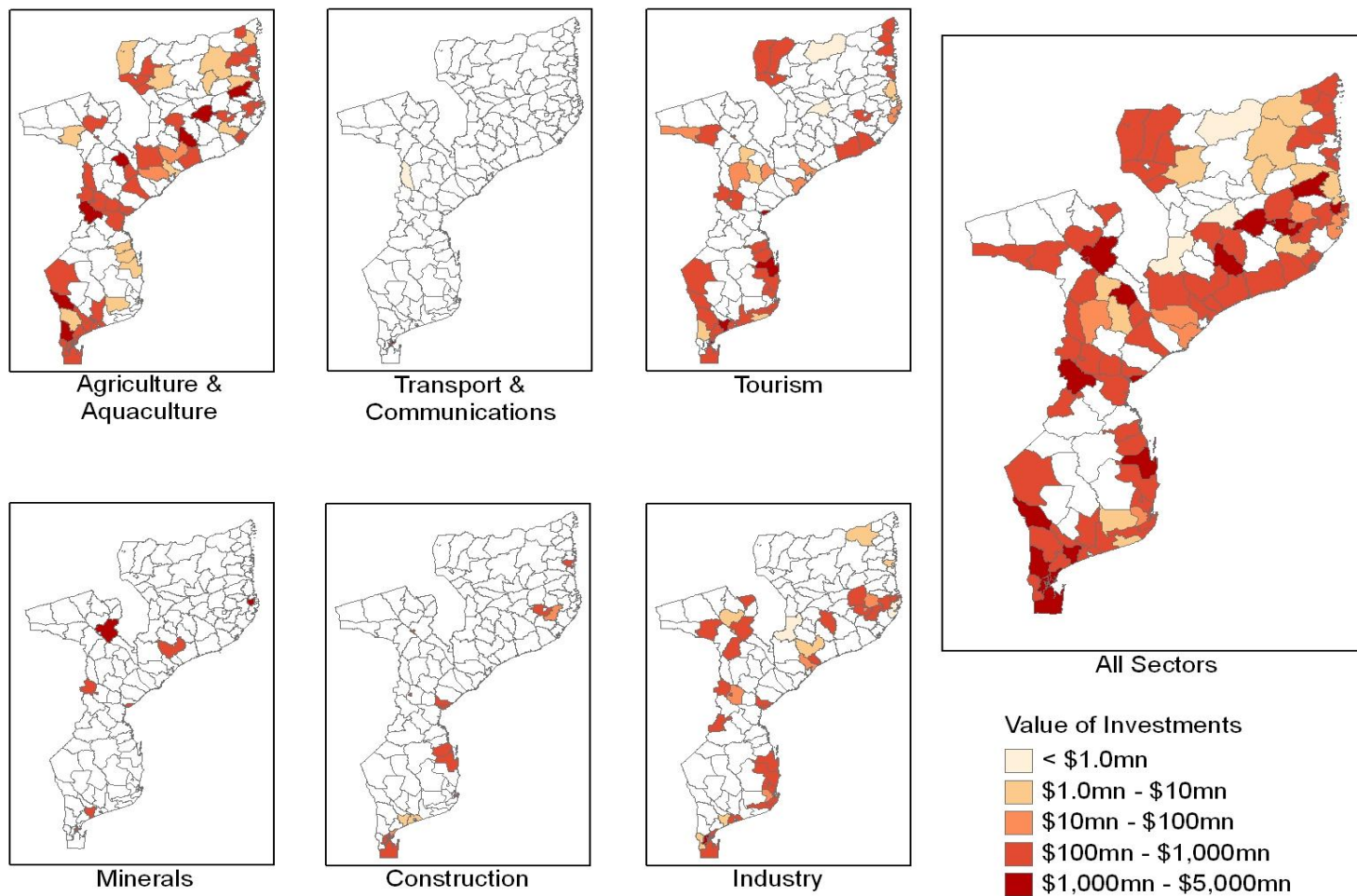




Table 4 details the complementarities between the growth poles strategy and the development corridors approach.

**Table 4. Complementarities between Growth Poles and Spatial Development Initiatives**

	<b>Development corridor (spatial development initiatives)</b>	<b>Growth poles</b>
<b>Characteristics</b>	<p>An integrated planning tool aimed at promoting investments in underdeveloped regions with growth potential; developed by South Africa</p> <p>A methodology, not a policy or specific geographic space (MCLI definition)</p>	<p>An integrated economic development model aimed at enhancing sub-national competitiveness through the promotion of investments in regions with significant high-growth potential</p> <p>Successful growth poles are demand driven and private sector led</p> <p>A key element of a growth poles strategy is a geographic focus; location within an SDI area is an added advantage</p>
<b>Objectives</b>	<p>Unlocking the rich resource base of a region by contributing to investment-led growth and the establishment of integrated development and manufacturing platforms</p> <p>Focus on mineral-based and large infrastructure investments.</p> <p>Key underlying objectives are regional cooperation and economic integration, with a strong focus on trade and transportation linkages</p> <p>Job creation and MSME development are usually the focus of second or third- generation investments evolving from upstream and downstream linkages</p>	<p>Unlocking the development potential of a sub-region, with a focus on sub-national competitiveness</p> <p>The primary focus is on local economic development and linkages between large investments and local MSMEs, leading to shared growth</p> <p>Growth poles could be driven by a single sector such as tourism or a large mineral-based investment, manufacturing, logistics or services, or a combination of various sectors sharing the same infrastructure platform</p>
<b>Spatial focus</b>	<p>Broad regional and usually cross-border coverage involving multiple provinces and administrative authorities</p>	<p>A more focused subregion (province or collection of districts), usually in a single country with a dominant institutional authority</p> <p>Spatial focus could include special economic zones or shared infrastructure such as ports</p>
<b>Role of the public sector</b>	<p>Develop or promote conditions conducive to crowding-in private investment and establishing public-private partnerships at the community level</p>	<p>Support and complement private investments through integrated investments in infrastructure, local institutional capacity, and business enabling environment, including through PPPs</p>
<b>Role of the private sector</b>	<p>Investors are invited to develop business opportunities in locations with the resources to support modern industries, and where focused planning and rapid implementation attract other investors</p>	<p>Successful growth poles are private sector led and driven</p> <p>The private sector is involved in conceptualization and planning of interventions; public-private dialogue and partnership are critical components of the strategy</p>

## COMPLEMENTARITIES BETWEEN A GROWTH POLES STRATEGY AND OTHER DEVELOPMENT PROGRAMS

The proposed growth poles strategy seeks to complement current and proposed initiatives by the Government and its development partners, including the World Bank, at the national and local levels. In fact, one of its main objectives is to support local authorities in planning, coordinating, and finding synergies among the government, donor, and private sector interventions to avoid duplication and maximize development outcomes. Where possible, the growth poles strategy will build on lessons learned and complement or scale up existing initiatives as part of an overall local development strategy. Growth poles interventions could also help fill gaps in investments or program implementation capacity. The approach can best be illustrated with examples of potential interventions in Tete and Nampula provinces, as shown in Table 5.<sup>a</sup>

**Table 5. Complementarities between Current Development Programs & Potential Growth Pole Interventions**

<b>Strengthening Local Institutional and Governance Capacity</b>	
<b>Nampula</b>	
<p><i>Current development programs</i></p> <ul style="list-style-type: none"> <li>▪ National Decentralized Planning and Finance Program (DPFP II) financed by multiple donors</li> <li>▪ Joint Municipal Development Program (SDC/DANIDA/ADC)</li> </ul> <p><i>Examples of gaps</i></p> <ul style="list-style-type: none"> <li>▪ Absence of a comprehensive provincial economic and spatial development strategy, land use plan, and investment program</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Strengthen the mandate and capacity of the Nampula Coordination Unit for Integrated Development (UCODIN)</li> <li>▪ Strengthen the legal, institutional and administrative arrangements for the Nacala SEZ and the roles/functions of GAZEDA vis-à-vis other local agencies, especially the municipality</li> <li>▪ Strengthen institutional capacity to manage the impacts of the large mining investments; e.g., Moma Heavy Sands, implementation of EITI++</li> </ul>
<b>Tete</b>	
<p><i>Current development programs</i></p> <ul style="list-style-type: none"> <li>▪ No known current initiatives</li> </ul> <p><i>Examples of gaps</i></p> <ul style="list-style-type: none"> <li>▪ Absence of a comprehensive provincial economic and spatial development strategy, land use and urban development plan, and investment program</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Strengthen capacity of the province, municipality and Moatize District to plan, coordinate, and implement programs and deliver public services</li> <li>▪ Strengthen institutional capacity to manage the impacts of large mining investments, including monitoring the resettlement and income restoration programs</li> </ul>

<sup>a</sup> Note: This is not a complete list of all donor programs in the provinces, due to the lack of data. The gaps described here are examples, and a more detailed assessment is required to design the growth poles strategy.

<b>Strengthening Economic Competitiveness of Key Sectors</b>	
<b>Nampula</b>	
<p><i>Current development programs</i></p> <ul style="list-style-type: none"> <li>▪ Agricultural productivity program (PROA) and rural markets program</li> <li>▪ USAID/MCC support for agricultural value-chains</li> <li>▪ MCC farmer income support project</li> <li>▪ MCC support for a CISCO Academy in Nampula</li> <li>▪ Joint Brazil/JICA support for agricultural development</li> <li>▪ IDA PSD Project support for Tropical Fruits Training Center with Chiquita</li> <li>▪ PROATUR/USAID support for tourism development under the Northern Arc program</li> <li>▪ Opportunities for PPPs in large-scale out-grower, or contract farming type schemes</li> </ul> <p><i>Examples of gaps</i></p> <ul style="list-style-type: none"> <li>▪ Absence of a comprehensive provincial strategy for agriculture/agribusiness</li> <li>▪ Absence of a government coordination process or specialized focal agency</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Develop synergies from potential integration among the various programs</li> </ul>
<b>Tete</b>	
<p><i>Current development programs</i></p> <ul style="list-style-type: none"> <li>▪ IDA Market-led Smallholder Development Project and Market-driven Irrigation Project</li> </ul> <p><i>Examples of gaps</i></p> <ul style="list-style-type: none"> <li>▪ Absence of a comprehensive provincial strategy for agriculture/agribusiness</li> <li>▪ Absence of a government coordination process or specialized focal agency</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Develop PPPs in large-scale outgrower or contract farming schemes</li> </ul>
<p><i>Current development programs</i></p> <ul style="list-style-type: none"> <li>▪ Japan TA for rehabilitation of Nacala Port and road improvement plan (N13)</li> <li>▪ ADB and MCC roads projects under the Integrated Road Sector Program (PRISE)</li> <li>▪ Multi-donor water supply and sanitation program in Nampula and Nacala</li> <li>▪ IDA/ACGF Water Sector Services and Institutional Support Project in Nampula</li> <li>▪ IDA electricity grid extension in peri-urban areas in Nampula</li> <li>▪ ADB/NEPAD electricity grid extension in Nampula</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Strengthen capacity for planning and regulation</li> </ul>

<i>Examples of gaps</i>	
<ul style="list-style-type: none"> <li>▪ Absence of a comprehensive provincial infrastructure development strategy and investment program</li> </ul>	
<b>Upgrading Urban Infrastructure</b>	
<b>Nampula</b>	
<p><i>Current development programs</i></p> <ul style="list-style-type: none"> <li>▪ Japan TA for rehabilitation of Nacala Port and road improvement plan (N13)</li> <li>▪ ADB and MCC roads projects under the Integrated Road Sector Program (PRISE)</li> <li>▪ Multi-donor water supply and sanitation program in Nampula and Nacala</li> <li>▪ IDA/ACGF Water Sector Services and Institutional Support Project in Nampula</li> <li>▪ IDA electricity grid extension in peri-urban areas in Nampula</li> <li>▪ ADB/NEPAD electricity grid extension in Nampula</li> </ul> <p><i>Examples of gaps</i></p> <ul style="list-style-type: none"> <li>▪ Absence of a comprehensive provincial infrastructure development strategy and investment program</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Strengthening capacity for planning and regulation</li> </ul>
<b>Tete</b>	
<p><i>Current development programs</i></p> <ul style="list-style-type: none"> <li>▪ IDA financing for the Sena railway line through CFM</li> <li>▪ IDA Regional Transmission Development Project</li> <li>▪ N7 road upgrading program</li> <li>▪ JICA support for rural bridge construction</li> <li>▪ DANIDA support for a new hospital in Tete</li> </ul> <p><i>Examples of gaps</i></p> <ul style="list-style-type: none"> <li>▪ Absence of a comprehensive provincial infrastructure development strategy and investment program</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Investments in urban water and sanitation, upgrading of roads and bridges, traffic management, and municipal services</li> <li>▪ Strengthening capacity for planning and regulation including interconnection agreements</li> </ul>
<b>MSME Development and Business Linkages</b>	
<b>Nampula</b>	
<ul style="list-style-type: none"> <li>▪ Program for business expansion (PROAB)</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Partnerships with the large investors in developing MSME and linkages programs</li> <li>▪ Improving the business environment for MSMEs</li> </ul>
<b>Tete</b>	
<p><i>Proposed development programs</i></p> <ul style="list-style-type: none"> <li>▪ Proposed Vale-IFC linkages program</li> <li>▪ Proposed Vale-CPI-UNCTAD linkages program</li> </ul>	<p><i>Examples of potential interventions</i></p> <ul style="list-style-type: none"> <li>▪ Partnerships with other large investors in developing MSME and linkages programs</li> <li>▪ Improving the business environment for MSMEs and capacity of the one-stop shop</li> </ul>



## NATIONAL INITIATIVES TO SUPPORT THE GROWTH POLES STRATEGY

A number of cross-cutting national initiatives need to be in place to support the growth poles strategy. These include:

1. Improvement of the business environment
2. Rationalization of public sector agencies responsible for supporting private investments
3. Inter-ministerial and national/local coordination
4. Improved supervision of megaprojects and public-private partnerships
5. Coordination of initiatives by the private sector and development partners.

### 1. Improvement of the Business Environment

The Government has adopted a *Strategy for the Improvement of the Business Environment* to implement the following reforms: (a) elimination of the minimum capital and bank deposit requirements for the creation of companies; (b) simplification of the licensing regime; and (c) approval of a new Code of Tax Benefits.

Given its low global competitiveness ranking, however, Mozambique will first have to take concrete actions to improve the business environment, especially for small and medium enterprises. The Government is intensifying its reforms to help raise Mozambique's growth potential, diversify exports, and stimulate new investment. In coordination with the World Bank, the Government will work to implement the following measures on a fast-track basis:

- Eliminate red tape to start and run a business by combining the three procedures related to tax registration of businesses; applying the Labor Code; reducing the paperwork required to hire workers; and making the new unified inspection agency operational (for all inspections except those on taxes and labor).
- Submit legislation to streamline business-related licenses
- Implement the new Bankruptcy Law once it has been adopted by the parliament
- Accelerate the registration of property by streamlining legislation and consolidating procedures
- Facilitate trading across borders by easing pre-arrival clearance.

These measures must be adopted and implemented without delay at the national level, while their implementation at the local level can be supported under the growth poles strategy. Other reforms critical to making the economy competitive include improving access to land, modernizing labor regulations, simplifying tax administration, strengthening protections for investments, and enforcing contracts.

## **2. Rationalization of Public Sector Agencies Responsible for Supporting Private Investments**

There are multiple agencies involved in supporting private sector development, with some overlapping mandates and functions. Some of the agencies with different roles in investment promotion and in implementing business environment reforms include (a) the Center for Investment Promotion (CPI); (b) the Institute for Export Promotion (IPEX); (c) the Institute for the Promotion of Small and Medium Enterprises (IPEME); (d) the one-stop shops; (e) the Private Sector Support Unit under the Ministry of Industry and Commerce (MIC); and (f) the provincial departments of that ministry. While the MIC is the focal point for business environment reforms, it does not have the capacity to drive the reform agenda, which involves seeking support from other ministries.

The roles and functions of the various agencies should be rationalized to provide more focused and effective institutional support to the private sector.

## **3. Inter-ministerial and National/Local Coordination**

The growth poles strategy needs a high level of political commitment and ownership at both the national and local levels. In Madagascar, the Growth Poles Project Steering Committee was chaired by a representative of the presidency and consisted of key ministers, provincial governors, and private sector leaders. Meetings were held every quarter, and key issues pertaining to project implementation that required inter-ministerial support were discussed and agreed upon by the Steering Committee.

A similar structure may be required in Mozambique to champion the strategy, possibly at the level of the presidency or prime minister. Here, the role of the newly established COCEP under the Ministry of Transport and Telecommunications is critical.

COCEP, with the support of the proposed TA project, is positioned to provide the spatial planning support for the growth poles in line with the SDIs. For COCEP to be truly effective, and to be consistent with the Government's decentralization strategy, it may need to establish regional offices in the growth pole areas under the coordination of the provincial authorities. COCEP should focus on its core mandate of spatial planning and perform a technical supporting role. Issues concerning megaprojects and large investments are best left to a separate institution.

## **4. Improved Supervision of Megaprojects and Public-Private Partnerships**

The need for greater oversight, transparency, and accountability over megaprojects is well recognized. The Government has proposed a draft Public-Private Partnership and Megaprojects Law that would govern and regulate such enterprises and other business concessions, and grant the rights to use and develop assets, property, and natural resources.

This legislation provides for the establishment of a new unit under the Ministry of Finance that will negotiate all megaprojects regardless of sector, and have a coordinating role in relation to the

other ministries. The unit would also formulate sector policies for PPPs and megaprojects, and analyze and monitor the PPP transactions. It would also set guidelines for individual projects.

For such a unit to be effective, it needs political support at the highest levels, with a clear mandate and high-level accountability and reporting. The unit should have the capacity to evaluate investment proposals using best-practice criteria and methodologies; assess risks and contingent liabilities; and determine the need for special fiscal or other incentives. Unless there are clearly defined responsibilities and communication protocols, oversight by both the unit and sector ministries could lead to inconsistency and conflict. The Government needs to ensure that the unit functions in an autonomous and professional manner and develops credibility and trust.

## 5. Coordination of Private Sector and Development Partner Initiatives

Private sector interests and investments drive successful growth poles, with the public sector playing a supporting, coordinating, and regulatory role, while delivering public goods and services efficiently. The Government needs to engage the private sector both nationally and locally in the conceptualization, design, and implementation of the growth poles strategy.

Understandably, there would be concerns of the risk of private sector capture of the process, especially by large foreign investors. However, with strong Government ownership and leadership of the process, broad representation from the private sector, and regular dialogue, a win-win partnership could be established to advance the planning process by tapping the resources and expertise available in the private sector. Similarly, for better coordination and integration of donor programs at the level of the growth poles, the growth poles strategy requires buy-in and commitment from the donors during the preliminary stages of conceptualization and design.

## NEXT STEPS

This report is only a preliminary assessment of the potential for growth poles along the three main development corridors: Beira, Maputo and Nacala, with a focus on four provinces: Maputo, Nampula, Sofala and Tete. The proposed next steps are:

- ***Building awareness and stakeholder consensus on a growth poles approach.*** It would be useful to discuss the preliminary findings and proposals with key stakeholders in national and provincial governments, the private sector, and the development community to chart a way forward. One of the key issues is to ensure that the growth poles strategy is integrated into the spatial planning initiative work being undertaken by COCEP, and that there is consensus among the key stakeholders, including the donor community, on the identification of potential growth poles and implementation of the strategy.
- ***Detailed identification of potential growth poles.*** A more detailed assessment of the potential for growth pole development is required. This should include a framework for the selection of growth pole areas, criteria to select priority areas and projects, a results

framework for evaluating outcomes and assessing the benefits and costs of implementing a growth poles strategy, a timeline for the proposed interventions, and estimation of available donor and private sector financing. *The focus should be on implementing a core set of priority projects in pilot growth pole areas where there is demonstrated private and local public sector commitment and ownership.*

- ***Government ownership and leadership.*** Adopt the growth poles strategy will require high-level political commitment and support, possibly at the level of the prime minister or presidency. The Office of Studies at the Presidency has expressed strong interest in the growth poles approach and could be a possible agency to lead this initiative. A key step would be to establish a joint public-private task force or steering committee that includes the main national and provincial stakeholders and civil society groups.

## Chapter 2 – Economic Rationale of Growth Poles Strategy

### A. INTRODUCTION AND DEFINITIONS

The origins of the growth pole theory can be traced back to the 17<sup>th</sup> century and the work of the English economist, philosopher and scientist William Petty (1623-1687) who studied the growth of city of London. It was only in the 20<sup>th</sup> century, with the work of the French economist François Perroux (1950), that the concept was more extensively elaborated. Perroux argued that growth does neither appear uniformly nor all at once within nations; it rather occurs around a specific “pole”. The original formulation of the growth pole theory viewed specific dynamic industries as the growth drivers, and the growth process as being driven by the scale economies and inter-industry linkages.

Perroux’s original work did not particularly emphasize the geographical aspect. Today, however, the spatial dimension is at the forefront of the growth poles theory. The focus on spatial, or geographical, factors within a nation is based on the notion that economic development may not be independent of the nation’s geographical structure; thus an increased level of geographic polarization of economic activity within a nation might represent an indispensable condition for the acceleration of economic growth. Contemporary literature, as well as this study, views ‘growth or development poles’ as *“points of economic growth or centers of economic activity that benefit from agglomeration economies, and through their interaction with surrounding areas spread prosperity from the core to the periphery.”* A growth pole is consequently characterized by a key industry or cluster, around which ancillary services and related industries develop.

The World Bank’s *World Development Report 2009* highlighted the notion of the impetus to growth coming from agglomeration economies within nations. It stressed that production becomes concentrated geographically within nations as economies grow. Some locations are favored by producers for exploiting the agglomeration economies. Successful governments then implement policies that redistribute and raise living standards across space within nations.

The concentration of economic activity does not necessarily bring agglomeration effects and productivity gains. Concentration may increase the possibility of agglomeration but coordination between economic agents may be required for this potential to be realized. Coordination failures may prevent strategic complementarities between agents due to information asymmetries. In such a situation, a government or a third party can seek to address the underlying coordination failure. Initiatives often include complementary investments in infrastructure, targeted skills development or the establishment of more effective institutions for the coordination of relevant activities.

Consequently, the growth poles concept emphasizes an integrated approach (across sectors, space and time) focused on the delivery of basic services in areas with actual or demonstrated growth potential. The design of a growth pole strategy covers targeted interventions and focused investments in strategic locations within a country.

While there are differences in the concepts underlying the growth poles, and other supply-side competitiveness measures such as industrial clusters, the spatial development initiatives (SDIs), and special economic zones (SEZs), there are also similarities. All of these initiatives advocate some form of spatially-targeted interventions in strategic locations for accelerating economic growth.

The most common argument for a spatial strategy is that the scarcity of capital in developing countries and the need to overcome coordination failures may be alleviated if inducements to the private sector target strategic locations with actual or demonstrated potential. The sign of a potential growth pole can for example be measured as its record of attracting investment. The economic impact of focused interventions in locations with proven potential may be greater than alternative investment strategies that for example target less favored or lagging parts of a country, or that allocate public funds on a proportionate basis.

In the 1960s, the growth pole strategy was popular in countries such as Brazil, Malaysia, Thailand and Venezuela. By the 1970s, the interest in the concept had dropped as its application failed to live up to expectation in many countries. Today there is a renewed interest in adopting forms of the growth pole strategy in Africa and elsewhere.

## **B. THE GROWTH POLE THEORY**

The growth pole theory is based on the assumption of unbalanced economic growth within nations. For an economy to attain higher income levels, “*it must and will first develop within itself one or several regional centers of economic strength.*” (Perroux, 1950). The concept of growth or development poles (*poles de croissance*) was originally developed to explain the anatomy of economic development in abstract economic space. In due course, the concept came to be applied in a spatial setting within nations. The scope of the growth pole theory also widened to include the normative issues of policy intervention, and spatially-targeted investments for accelerating the economic growth in developing countries. The arguments in favor of implementing a growth pole strategy as a spatial planning tool draw on the following concepts: (i) economies of scale; (ii) the nurturing of backward and forward supply linkages, fiscal and final demand linkages; and, more generally (iii) economies of agglomeration associated with spatial clusters and geographic concentration of economic activities.

### **1. Initial Variants of the Growth Pole Theory**

Francis Perroux formalized the growth pole concept and argued that the impetus to grow comes from poles, spread along diverse channels, with varying terminal effects on the economy. Thus the concept viewed the economic development process as essentially polarized, in the sense that forces inherent in the development process worked towards polarization of economic activities. The notion of dynamic or leading industry or industries, inter-industry linkages, and industrial interdependence played a major role in the initial variants of the growth pole theory. The close relation between scale of operations, dynamic, leading or dominant industries, and the impulses of these leading industries to innovate were the main features of Perroux’s growth pole theory.

Central to the growth pole concept is a group of industries that are connected. The dynamic industries dominate other industries either by virtue of their dimension, or their negotiation strength, or their capacity to innovate and adapt to market conditions. The propulsive effects of growth come from the economies of scale of these dominant industries. Some of the propulsive effects are internal to the dominant industry itself. That is, the growth of the dynamic industry generates investment, employment, and distribution of factor payments, including profits that may be reinvested. The growth of the dominant industry generates external effects that stimulate the growth of other industries due to inter-industry linkages.

The expansion of the dominant industry sets in motion a process of development sustained by a high multiplier: the combined effect of the ordinary final demand multiplier and induced inter-industry deliveries, which are further supported by the investment accelerator. The impetus to growth coming from the dominant industry and transmitted to the other industries leads to three types of polarization: technical, income, and geographical polarization:

- *Technical polarization*, when an industry, through the flow of goods and incomes which it is able to generate, stimulates the growth of other industries related to it.
- *Income polarization*, when an industry determines the prosperity of the services industry by means of the incomes it generates.
- *Geographical polarization*, when an industry stimulates an increase of the regional economy by causing a progressive concentration of new activities.

Three basic characteristics of a dynamic or propulsive industry or a group of industries emerge from the relevant literature on growth or development poles.

- The industry must be increasing returns to scale and be relatively large to have a significant impact on the economy.
- It must be a relatively fast growing sector.
- The interrelations of the dominant industry with other industries should be significant so that a large number of induced efforts will in fact be transmitted.

The original concept of the growth pole was defined in abstract economic space, and not with specific considerations of spatial factors within nations. Later formulations of the growth pole theory placed growth poles in the context of strategic spatial locations within countries. These formulations emphasize the tendency towards the clustering of economic activities within nations as inherent in the economic forces at play, and concomitant with economic development.

## **2. Geographic/Spatial/Cluster Variants of the Growth Pole Theory**

The focus on the potential for growth through spatial and geographic-concentrations of economic activity within nations came about for several reasons. First, it had been recognized that economic growth was associated in a causal sense with geographic polarization, and the historical evidence for this was abundant. Second, all economic activities have specific locations within nations. Just as the dynamic industries create concentration in functional space, the growth of these industries can cause spatial polarization within nations as well. Finally, although such spatial concentrations

often evolve naturally or spontaneously over decades, it is now recognized that well-designed initiatives for correcting coordination failure can expedite the process of development in developing countries.

The notion underlying growth poles in a spatial or geographic area within nations is that greater concentration of economic activity in a few places (districts or provinces within nations) is part of the spatial transformation that accompanies development. This is also the main message of the World Bank's World Development Report *Reshaping Economic Geography* (WDR 2009) that economic growth at the national level will inevitably be geographically unbalanced, and trying to spread out economic activity evenly is tantamount to discouraging it. Living standards can spatially converge within nations with policies that facilitate economic integration between the leading and the lagging regions. Unlike the initial proponents of growth pole theory, who drew on tools from industrial organization, the recent formulations in favor of agglomeration draw (in addition to tools of industrial organization) on insights from urban and business economies, new economic geography and endogenous growth theories.

The geographical interpretation of growth poles refers to polarization both in spatial and in functional space. Therefore, not every center of a region (such as a province or district) can qualify to be a growth pole. The criteria for growth poles include: (i) a geographical concentration of economic activities that exert a strong influence on their environment; (ii) demonstrated private sector investments including foreign direct investment; or (iii) latent capability of generating sustained growth over a prolonged period of time due to natural factor endowments. Such areas of growth potential may include areas with agricultural potential, including the potential for developing agribusiness products, transportation hubs, ecological conservation areas with tourism potential, areas of natural resource endowments, such as that of extractive industries, forestry, and fisheries. The impetus to growth from these activities comes from exploiting linkages and the possibility of agglomeration economies.

### 3. Linkages

Linkages emanating from centers of economic activity play a crucial role in the growth pole theory. The literature identifies four types of channels through which linkages impact on the economy.<sup>3</sup>

- *Backward linkages*: the flow of material, capital and information between businesses in the supply chain
- *Forward linkages*: the distribution chain connecting producers or suppliers with customers
- *Fiscal linkages*: taxation through which rents can be reinvested in the provision of public goods such as the physical (roads, bridges, etc) and social (human resource development, R&D, technology) infrastructure.
- *Final demand linkages*: the multiplier arising from activity created by local spending of wages and profits (Box 1).



### **Box 1. Chile: Linkages in natural resource-based clusters**

The Antofagasta region in Chile hosts a concentration of mining and mining-related firms, in particular in copper production. Antofagasta is linked to the Capricorn Corridor, which links Chilean ports together with provinces in Argentina and Brazil. Although copper mining was nationalized in the early 1970s, the Chilean Government has sought to attract foreign direct investment by providing fiscal incentives. Companies and academia have been involved in projects that seek to improve inter-firm linkages, in particular by integrating small-scale suppliers. Several private initiatives have enjoyed government support. The cluster is now dominated by firms with less than 200 employees.

Chile also hosts clusters in the agro-industry, including a tomato processing cluster and an aquaculture cluster. The Government helped link local suppliers with foreign clients and initiated programs to improve the quality of inputs such as introducing foreign varieties. The private sector built capacity for quality control, procurement, logistics, and management of supplier relations. Quality products began to emerge in the early 1980s. Foreign firms were instrumental in improving the products inter-firm coordination led to the joint creation of product standards.

Salmon is not native to Chile but was introduced after experimentation in the 1970s, with collaboration between Chile's National Fisheries service and the Japan International Cooperation Agency. A public research program became an important source of independent firm start ups. Inter-firm coordination was required in order to establish a Chilean brand and access international markets. Horizontal networks and alliances were established, giving rise to a quality seal certification defining product standard.

*Source:* Background Paper for World Bank's World Development Report 2009.

## **4. Economies of Agglomeration**

Linkages and increasing returns to scale—and their role in fostering spatial agglomeration of economic activity within nations—play an important role in “new economic geography” and “new growth theory” models. The argument is that increasing geographical concentration of economic activity increases the possibility of agglomeration economies and resultant productivity improvements. Central to the concept of agglomeration economies is the presence of scale economies (both internal and external) that come with spatial concentrations of economic activity within nations.

Parallel developments in the management literature focus on the role of scale economies that come from spatial clusters in determining national competitive advantage. Michael Porter developed a conceptual framework for understanding the relevant forces at work in shaping the outcomes of clusters, which is defined as “*geographic concentrations of interconnected companies and associated institutions*” in determining “locational competitive advantage” within nations. Such advantage arises on account of scale economies, and this in turn comes from demand and factor input conditions and related supporting conditions.

Economies of agglomeration arise not merely on account of size—a big city or industry—but more because of the interactions between firms and industries in an area. While the earlier formulations of growth poles in a spatial or geographical sense equated the geographical space in terms of urban area, later formulations have emphasized that any area above a specified threshold

level, such as a district or province, can be a growth pole, as long as the area has a geographic concentration of economic activities that provides scale economies. The scale economies that come from spatial concentrations of economic activity are likely to have the following characteristics:

- Increasing returns to scale at the firm level. Such benefits can be pecuniary (*e.g.* a larger mill getting volume discounts from suppliers), or technological (*e.g.* a firm learning to operate more efficiently over time).
- Spatial proximity allows firms to stay abreast of market information in negotiating with customers and suppliers.
- Spatial clustering of firms or industries allows them to share a larger and more dependable pool of labor.
- Spatial concentration of firms allows workers and entrepreneurs to learn from each other.
- Firms may value the overall economic diversity of an area. These are referred to as urbanization economies, and are associated with good access to a broad range of producer and consumer goods that typically increase with the size of the agglomeration.
- Availability of power supply, transport links connecting districts to markets, and the supply of skilled workers helps to attract manufacturing activities.

### **Box 2. The Madagascar Integrated Growth Poles Project**

The Madagascar Integrated Growth Poles Project (US\$170 million) is a joint World Bank-IFC initiative launched in 2005. The project aims at stimulating the growth of three geographical regions of Madagascar centered round the growth poles of Nosy Be, Fort Dauphin and Antananarivo-Antsirabe. It seeks to address key constraints to investment, including infrastructure, business environment, institutional capacity, skills and access to finance. It's a multi-sector project with particular focus on tourism-led growth in Nosy Be, mining- and tourism-led growth in Fort Dauphin, and export-led growth in Antananarivo-Antsirabe.

In **Nosy Be**, the project team focuses on building support infrastructure (rehabilitating roads and improving water supply), strengthening Municipal capacity for administration, fiscal management and service delivery, and supporting business environment reforms. The Project supports a new Hotel Training School in partnership with other donors and the private sector, and the establishment of a Marine Reserve to protect rare ecological resources vital to the sustainability of the tourism industry.

In **Fort Dauphin**, the project team is working closely with the Government and the mining company Rio Tinto to ensure that large mining investments benefit the local population. It co-financed the construction of a new public multi-user port managed by a private consortium and in operation since 2009. A World Bank (IDA) investment of US\$35 million in this port leveraged private investment of US\$1.2 billion in the Rio Tinto mining project. It also invested in road construction to support tourism and to facilitate market access for local production.

In addition, the project is also supporting innovative public-private partnerships with Rio Tinto in power generation and transmission—with a guarantee from the Multilateral Investment Guarantee Agency—and in improving access to water supply. A partnership with UNDP, Rio Tinto and other

private firms has led to the establishment of a vocational training center to bridge local skills gaps. The emphasis on ensuring that mining projects have a positive impact on local populations and on the economy more broadly serves as an example of what can be done for other mining investments.

In **Antananarivo-Antsirabe** the project team is supporting private-public partnerships in skills development for the garments, tourism and information technology industries. It includes a successful partnership with a private university and the garments industry on the first textile engineering diploma program in Madagascar. It also supported the establishment of the Economic Development Board of Madagascar (EDBM)—the first dedicated Investment Promotion and Facilitation Agency in Madagascar. This institution has established regional offices in the growth poles and the effort is showing positive results on investment promotion and facilitation.

Until the onset of the political crisis of 2009, the project was on track to achieve its development objectives and results in terms of private investments and job creation. Private investment increased from US\$84 million in 2005 to US\$1,045 million in 2007. In 2006-2008, some 5,000 new businesses were registered in the three poles. During the same period, an estimated 10,000 formal jobs were created in the three poles and the number of new hotel rooms in Fort Dauphin and Nosy Be increased by 40 percent and 27 percent respectively. Regional development plans were adopted and most of the major infrastructure works were completed leading to major improvements in local infrastructure.

The overall business environment improved as it became easier to register a business, trade, pay taxes and obtain a license. In Fort Dauphin it now takes four days to register a new business compared to two months before the project was initiated. The EDBM regional offices in Nosy Be and Fort Dauphin can now register individually owned enterprises which has significantly reduced the cost and time taken for small business start-ups. The IDA/IFC Partial Credit Guarantee Scheme has granted a total of 1,192 loans totaling US\$29.0 million in the three poles.

These indicators suggest promising private sector response to the project investments in infrastructure and the improvement in the business environment. This project has been mentioned as a model for IDA-IFC collaboration with the active participation of FIAS-MIGA, PEP Africa and IFC and close coordination of activities. The Project has also established collaboration with other Bank projects such as the Mining Resources Governance Project and the Governance and Institutional Development Project to better coordinate delivery of interventions at the regional and local levels.

## 5. Coordination Failure and the Role of Third Parties

The spatial concentration of economic activity within nations increases the possibility of economies of agglomeration but the literature indicates that coordination between economic agents may be required for these positive effects to be realized. Many industry clusters are unable to move out of a low return equilibrium due to factors such as the failure to develop a coordinated growth strategy, obtain access to finance, address information asymmetries, etc. Third party intervention (that may be the government or private entities) in the form of greater infrastructure investments, improved provision of skills development and better coordination of activities, are some means by which third parties can help in the elimination of coordination failures.

### **Box 3. Agglomeration economies: the case of Dongguan, China**

In 1978, the city of Dongguan in China's Guangdong province was a collection of villages and small towns, with a primarily agrarian population. Today Dongguan is home to about seven million people of

whom more than five million are migrants who work in the thousands of factories that dot the city, churning out a wide variety of products. Location and favorable factor prices spurred Dongguan's early growth prior to 1990s. Dongguan's rapid growth in the 1990s is linked to the economies of scale, or internal economies, whether in the production of intermediate goods or differentiated products. In 2005, a single plant in Dongguan manufactured more than 30 percent of the magnetic recording heads used in hard disk drives worldwide. Agglomeration or external scale economies were equally visible. The knowledge spillovers and lower logistics costs from locating close to input providers and export traders produced globally important industry clusters for knitted woolens, footwear, furniture, and toys.

*Source:* World Bank's World Development Report 2009.

A recent study surveying location plants in developing countries identifies the following as important factors:<sup>4</sup>

- Factor prices
- Quality and cost of complementary utility services, including electricity, water and communication
- Market access as a function of the size of the region that can be reached given existing transport infrastructure
- Agglomeration economies as measured by the presence of firms in own industry and of firms in related industries—that is, buying or supplying industries
- Labor and other regulations

The study showed that benefits of agglomeration (both own industry and overall diversity), market access and infrastructure endowments were far more important, and outweighed the costs imposed by congestion, increasing wages, and land prices. It suggests that investments in these areas can relieve congestion costs and thereby attract more private investment. Firm survey data from India and Indonesia find that localization economies, as measured by own industry concentration, have significant bearing on firm location decisions across cities.<sup>5</sup>

### **C. GROWTH POLES, SEZs AND SDIs**

Special Economic Zones (SEZs) are often designed as supply-side competitiveness measures. SEZs are meant to establish an agglomeration of firms through the provision of superior infrastructure and operating conditions as well as fiscal and other incentives not provided outside the zones. High tech parks, science parks, industrial zones, and export processing zones are some examples of SEZs.

Unlike SEZs, most clusters of economic activities are demand-driven and many clusters are not subject to any industrial policy. Supportive institutions and facilities in a cluster evolve gradually to respond to needs of cluster firms. The Government can act as a catalyst by providing a streamlined business environment, institutional support as well as enhanced delivery of public services. Nevertheless, SEZs can function as growth poles if there are adequate linkages to the

domestic economy and they are planned and implemented as a component of a sub-regional growth strategy as for example in Malaysia or Thailand.

The Spatial Development Initiative (SDI) approach seeks to enhance the developmental potential along Development Corridors (DCs) through “*deepening*” (project linkages) and “*densification*” (provision of feeder infrastructure). South Africa’s SDI program was conceived in 1995 as a vehicle for accelerating economic growth and job creation by revitalizing selected sectors such as agriculture, manufacturing, mining and tourism.<sup>6</sup> Targets include improved infrastructure, private sector investment, environmental sustainability, and empowerment of previously disadvantaged social groups.

The Maputo Development Corridor (MDC) is arguably the most successful although the impact on the Mozambican side of the corridor has been fairly limited (Box 4). Another SDI, the Regional SDI Programme (RSDIP), was launched in the late 1990s and covers Angola, Mozambique, Namibia and Tanzania. In 2007 the NEPAD Secretariat and the African Development Bank adopted DCs as a strategy for regional integration in Africa. The key defining features of the SDI approach are a focus on resource-based anchor investments which require large infrastructure investments and the emphasis on developing linkages to the local economy through feeder infrastructure and business linkages to SMEs.

#### **Box 4. Maputo Development Corridor**

The Maputo Development Corridor is a cross-border development strategy encompassing Mpumalanga province in Southern Africa and parts of Maputo in southern Mozambique. The aim of this supply-side competitiveness strategy is to revitalize agriculture, manufacturing, mining and tourism in the region through cooperation between the country governments and the private sector. The strategy is a spatially targeted intervention on transport infrastructure, environment sustainability, and empowerment of disadvantaged social groups. Part of this initiative was the construction of a highway to connect South African mines with the port of Maputo. More efficient road transport is expected to make it cost-effective for South African firms to ship minerals from Maputo. In addition, road construction and upgrading is expected to create linkages by encouraging a range of industries to locate in the area. This natural resource-based project still has a number of technical and environmental barriers to overcome but is expected to be operational in 2011.

*Source:* Background Paper for the World Bank’s World Development Report 2009.

## Chapter 3 – Prospects for a Growth Pole in Tete Province

### A. INTRODUCTION

Tete Province (pop. 1.8 million) is attracting large investments in megaprojects in the energy and mining sectors.<sup>7</sup> In energy, Africa's fourth longest river, the Zambezi, has significant hydroelectric potential. In mining, international mining companies have targeted the region's abundant deposits of coking coal and other minerals and metals, including thermal coal, gold, iron, vanadium, titanium, and uranium. Tete's coal deposits—thought to be the world's largest unexploited reserves—were identified more than a century ago but have stayed largely unexploited due to the remoteness of the coal regions and the logistical challenges of getting the coal to international markets.

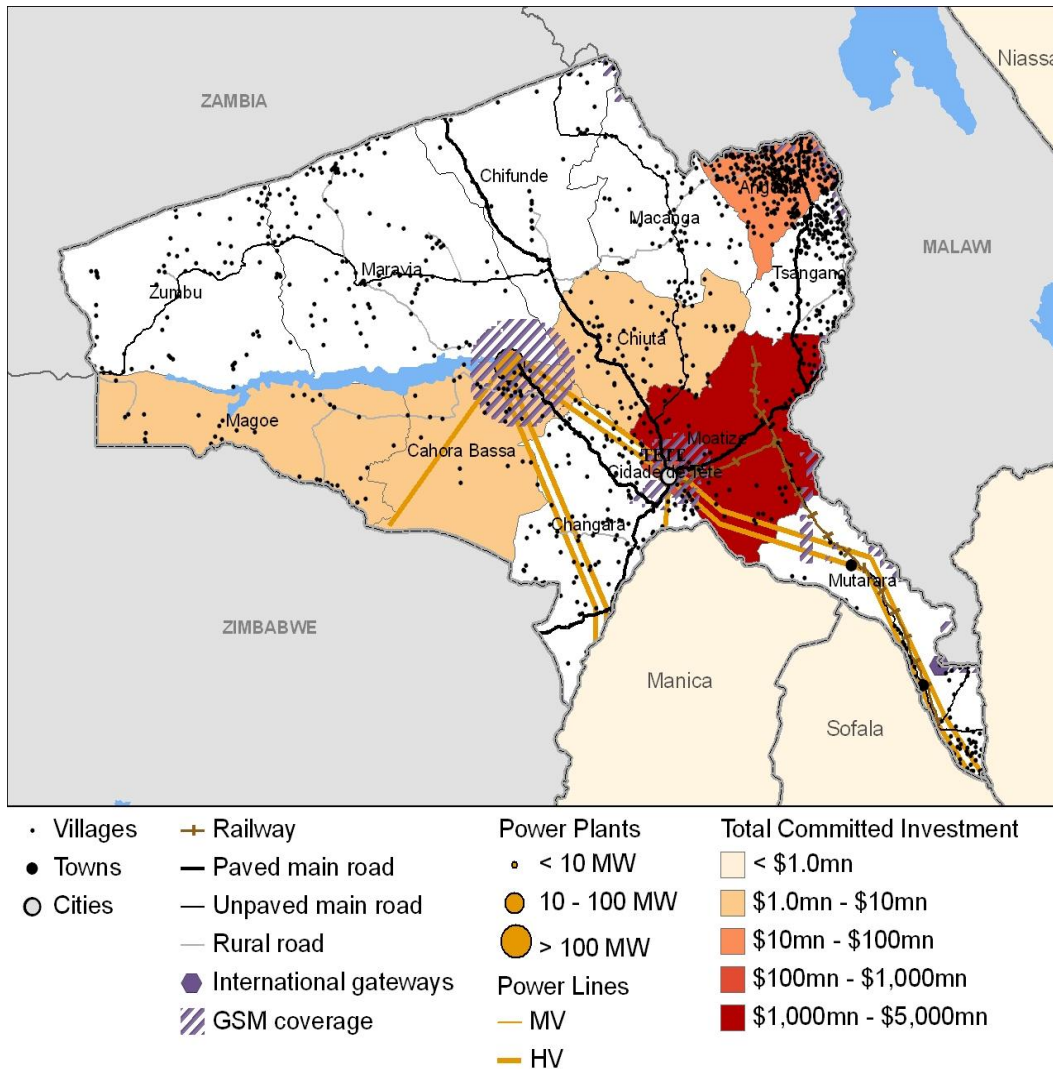
Since Mozambique's transition from civil war to peaceful democracy in the 1990s, interest in Tete Province has been driven largely by the rising international demand for coking coal in steel production. Today, the province's fledgling mining industry has given rise to a thriving services sector in and around the provincial capital (Tete town, pop. 164,000). There are increasing expectations that the province's significant mining potential is finally set to take off. This would trigger associated developments in transport and energy infrastructure.

The provincial economy grew by 8 percent a year between 2005 and 2008. This growth rate exceeded the 7.5 percent target set by the provincial government for 2007–2011.<sup>8</sup> In KPMG's Business Confidence Index for June 2009, 94 percent of companies in Tete Province are optimistic about the future, and 65 percent say they plan to expand their activities. Exports grew by 10 percent a year in 2005–2008 and consisted mainly of electricity generated by the Cahora Bassa dam on the Zambezi River. Other major exports were processed tobacco and sardines harvested from Cahora Bassa Lake. The value of exports reached MZN 3.5 billion (about US\$145 million) in 2008, despite the fact that the two mining companies that control the region's largest coal concessions have yet to start production. These companies—the Brazilian firm Vale S.A. and the Australian firm Riversdale Mining Ltd—are preparing to start large-scale coal mining operations in 2011. They are now developing their concessions in Moatize and Benga, respectively, and other mining companies may begin production in the coming years. There are also advanced plans to build new hydroelectric and coal power plants. It is likely therefore that the provincial economy will continue to grow quickly.

On a per capita level, growth has been less pronounced because high fertility and inflows of labor caused the provincial population to increase by half during the last decade.<sup>9</sup> The formal education level is low, and HIV/AIDS and malaria still afflict a large proportion of the population. The population is made up mostly of subsistence farmers, and there are few formal sector employment opportunities. New investments in the mining, transport, and energy sectors would help strengthen the local economy, create private sector jobs, diversify exports, and provide a growing foundation on which to raise government revenue.

To make the most of the big investment projects, the national and local governments need to confront a number of challenges. The local economy would grow faster and more sustainably if investments in mining and energy were complemented with parallel initiatives to invest in human capital, enhance institutional capacity, improve transport infrastructure and the investment climate, and address the substantial environmental challenges associated with strip mining, hydropower, and coal-fired power plants.

**Figure 4. Tete Province: Infrastructure Assets and CPI-Authorized Investments in 2005-2009**



Source: Mozambican Authorities (CPI 2005–2009) and the World Bank.

## B. PROVINCIAL STRATEGY AND PRIORITIES FOR DEVELOPMENT

The provincial government has a Strategic Development Plan<sup>10</sup> for 2007–2011, and Tete municipality has recently adopted a Governance Program for 2009–2014. These plans identify the main issues and highlight the key priorities of the local authorities.

The *provincial government's plan* highlights the provincial economy's reliance on basic agriculture and its limited access to irrigation. It also emphasizes the economic potential of the province's flora, fauna, soil, minerals, and water resources, and identifies some major challenges, including (i) weaknesses in the provision of roads, water, education, health services, and energy; (ii) a low level of private investment; (iii) a shortage of skilled labor; and (iv) weak capacity of the local government.

The province plans to address these issues by promoting a number of sector (Table 6) and cross-cutting (Table 7) initiatives to, respectively, strengthen the mineral, agriculture, fisheries, and tourism sectors; and to modernize the administration, protect the environment, and improve public services.

<b>Table 6. Sector initiatives</b>
<p><b>Mineral resources:</b> Improve knowledge, encourage local value addition, and promote SME development, mining mechanization, and the establishment of associations.</p> <p><b>Agriculture:</b> Promote the use of cattle in land cultivation, develop irrigation systems, update the land registry, revive the rural trade network, secure the supply of inputs, and promote local production of improved seeds, improved farming techniques, and agro-processing to ensure food security.</p> <p><b>Fisheries:</b> Establish vocational training centers, support artisanal fisheries and fish farming, promote the establishment of fishermen's associations, introduce zoning in the Cahora-Bassa Lake, and develop technologies for fishing, processing, and preservation.</p> <p><b>Tourism:</b> Extend the hotel network, promote conservation areas for ecotourism, and develop niche services such as heritage, cultural, community, leisure, and sport fishing tourism.</p>

<b>Table 7. Cross-cutting initiatives</b>
<p><b>Industry and trade:</b> Improve the operation of the One-Stop Shop, attract medium and large industries, and establish storage capacity for agricultural products.</p> <p><b>Infrastructure support for economic development:</b></p> <p><i>Energy.</i> Expand the distribution network from the Cahora Bassa, assess the feasibility of harnessing hydropower potential, encourage the use of renewable energy and energy imports from neighboring countries to the border districts, implement the M'panda-Uncua dam project.</p> <p><i>Transport and communications.</i> Modernize communications systems, improve postal services, expand the network of meteorology and fixed and mobile telephony, establish passenger and cargo terminals, inland waterway transport and road safety, and reinforce existing airfields.</p> <p><b>Border and regional cooperation relationship:</b> Promote transnational cooperation, develop cross-border eco-tourism, and enhance access of health services, transport, trade, energy, and water in border regions.</p> <p><b>Modernization of public administration:</b> Restructure the provincial government, promote actions to attract qualified personnel, build and rehabilitate public infrastructure, strengthen assistance to district and municipal bodies to improve performance; promote participatory district planning</p>



and training advisory councils, consolidate the expansion and implementation of the Local Bodies of State to the City (*Órgãos Locais do Estado até à Localidade*), and modernize public institutions and e-government.

**Environment:** Establish committees for the management of natural resources, develop and implement plans for integrated management in towns and district headquarters, develop plans for use of land, and control soil erosion.

**Public works and housing:** Rehabilitate Tete Bridge, expand network of roads and bridges, and improve access from the capital to district headquarters and rural areas.

**Basic social services:**

*Education and culture.* Build new high schools in a number of districts, train more teachers, strengthen technical and vocational schools, advance measures of literacy and adult education, build an Institute of Primary Teaching in the city of Tete and a campus of the Polytechnic Institute, and expand public and private higher education.;

*Health.* Hire doctors in seven districts and qualified staff in other districts, build a hospital in the city of Tete, construct, rehabilitate and expand health centers in densely populated areas, and promote measures to prevent and combat communicable diseases;

*Water.* Provide safe water to rural areas and promote education on sanitation.

The *municipal plan* is less detailed and based on nine broad targets and guidelines. It focuses on developing solutions to enhance the well-being of Tete's citizens, especially by improving and promoting:

- Transparent and participatory governance
- A safe and peaceful environment
- Integrity (combating corruption)
- The development and prosperity of the local economy
- Basic infrastructure
- Better housing and urbanization
- A clean city free of disease
- Quality of and access to education and training
- Culture, sports, and recreational activities.

The targets and guidelines identified in the provincial and municipal development plans correlate with the most pressing concerns identified during the World Bank mission in December 2009. Some of these issues are already being addressed by initiatives undertaken in the last few years.

## C. CURRENT AND PLANNED INVESTMENTS

In 2005–2009, 11 percent (or US\$1.8 billion out of US\$16.2 billion) of investment projects authorized by Mozambique’s Investment Promotion Agency (CPI) targeted Tete province (tables 8 and 9). While the value of authorized and realized investment projects can diverge significantly, CPI data still provide a good indication of sectors and areas of economic interest and activity.

The CPI data indicate that Vale’s US\$1.5 billion mine investment, authorized in 2007, has helped spark a support industry in the region. CPI authorized several investments in new hotels: US\$10.0 million in Hotel Panorama (2008), US\$19.1 million in Hotel de Tete (2008), and US\$25.0 million in Hotel VIP Executive Tete (2009). In 2009, a Mauritius-based drilling services company committed to invest US\$57.3 million, and a Portuguese producer of explosives committed to US\$8.8 million. Several construction companies recently established themselves in Tete, and a US\$60 million oil project was authorized in 2007.

In addition to the companies that directly serve the mining sector, CPI authorized nearly US\$12 million worth of projects in the agriculture and fisheries sector. Ensuring food security is a key priority of the national Government, and agriculture is one of the provincial government’s key priorities because of the large share of population engaged in this sector. The expanding local population, and in particular the growth in the working population engaged in non-agricultural activities, will raise demand for food and food products sold at outdoor markets, restaurants, and retailers.

There is strong local interest in increasing the use of irrigation in the Tete Province. In 2003, Tete produced 16 percent of the country’s output of maize, 45 percent of millet, 30 percent of sweet potato, 0.5 percent of rice, 6 percent of sorghum, 2 percent of cassava, 37 percent of cattle, 14 percent of pigs, 38 percent of tobacco, and 8 percent of cotton.<sup>11</sup> However, commercial farming is still limited, despite Mozambique Leaf Tobacco’s US\$55 million tobacco-processing plant—the second-largest in Africa—which opened in Tete Province in 2006 and employs some 2,000 workers.<sup>12</sup>

The Zambezi Valley Planning Office (GPZ), a parastatal, is building a grain processing plant in Tete Province with an annual capacity of 25,000 tons. GPZ has secured US\$50 million from China’s Eximbank to finance agricultural projects in the Zambezi River Valley. The resources will fund agricultural processing units in Tete, Zambezia, and Manica provinces as well as imports of agricultural machinery.<sup>13</sup> The project is expected to boost commercial agriculture and mechanization partly through the procurement of 350 tractors—120 of which would be assigned to rice production.

To support local agricultural activities, the World Bank has initiated two support projects in FY10—the Market-led Smallholder Development Project in the Zambezi, and the Mozambique Market-Driven Irrigation Project. Aside from local food production, there is no effective link between food suppliers and consumers.

Tables 8 and 9 show some interesting trends. First, investments flowing into Tete Province have risen steadily; the value of authorized investment projects increased from US\$3.9 million in 2005 to US\$120.5 million in 2009—not including Vale’s mining investment in 2007. Second, the inflow of capital is concentrated in the Moatize district, where the major coal extraction licenses are issued. Eighty-six percent of total authorized investment in 2005–2009 went to Moatize and another 11 percent went to nearby Tete town. The districts of Agonia, Cahora Bassa, Chiuta, Magoe and Songa all received less than one percent of total authorized investment. Several other districts received no recorded investment at all. The geographic balance is somewhat less skewed if Vale’s large investment is excluded.

Third, the authorized investment projects are generating formal jobs but not many new direct jobs. In 2005–2009, the authorized projects included commitments to hire 2,250 workers. Out of US\$1,780 million in investment, this equaled US\$791,600/job. The investment authorized for Vale did not come with an employment figure, and excluding this investment would imply US\$109,100/job. Many investment projects are capital intensive. The authorized labor-to-capital intensity is particularly high in *agriculture and processing* (US\$10,000/job) and in *transport and communication* and *construction* (US\$25,000–US\$26,000)—as compared to *agriculture and fisheries* and *industrial* (US\$73,000–US\$75,000), *tourism and hotels* (US\$159,000), and *services* (US\$375,000).

Finally, while the authorized value of investment projects grew rapidly over the period, the number of new investment projects was quite stable. From six projects in 2005, the CPI portfolio included eight projects in 2006, seven projects in 2007, eleven projects in 2008, and eight projects in 2009. This implies that the size of the investments is growing rather than the number of investments.

To address the many challenges facing the private sector in Tete Province will require the cooperation of all levels of government. Official actions will have a significant impact in several ways—including the number of authorized projects finally realized, the amount of new investment the province attracts, and what benefits are transferred to the population. The extent to which the province manages to capitalize on investor interest in the mining and energy sectors, in particular, will determine the region’s economic development performance in the coming decades. The development plans of Tete Province and Tete municipality have captured the key issue: the task for government is to implement reform programs that address several issues in parallel.

**Table 8. CPI-Authorized Investments in Tete Province in 2005–2009, by District**

District	2005		2006		2007		2008		2009		2005-2009	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
Angónia	..	..	..	..	..	..	..	..	42	\$11,992,371	42	\$11,992,371
Cahora Bassa	..	..	..	..	..	..	14	\$150,000	113	\$4,320,776	127	\$4,470,776
Chiuta	..	..	215	\$2,000,000	..	..	96	\$260,000	..	..	311	\$2,260,000
Magoé	58	\$1,260,000	..	..	..	..	..	..	..	..	58	\$1,260,000
Moatize	..	..	88	\$500,000	*	\$1,535,011,000	..	..	205	\$21,622,774	293	\$1,557,133,774
Songo	..	..	100	\$8,223,460	..	..	..	..	..	..	100	\$8,223,460
Tete	162	\$2,591,465	227	\$6,432,478	343	\$65,671,550	400	\$37,733,465	186	\$82,610,782	1,318	\$195,039,740
<b>TOTAL</b>	<b>220</b>	<b>\$3,851,465</b>	<b>630</b>	<b>\$17,155,938</b>	<b>343</b>	<b>\$1,600,682,550</b>	<b>510</b>	<b>\$38,143,465</b>	<b>546</b>	<b>\$120,546,703</b>	<b>2,249</b>	<b>\$1,780,380,121</b>

\*CPI does not present data for the largest source of FDI

Source: Mozambican Authorities (CPI 2005-2009).

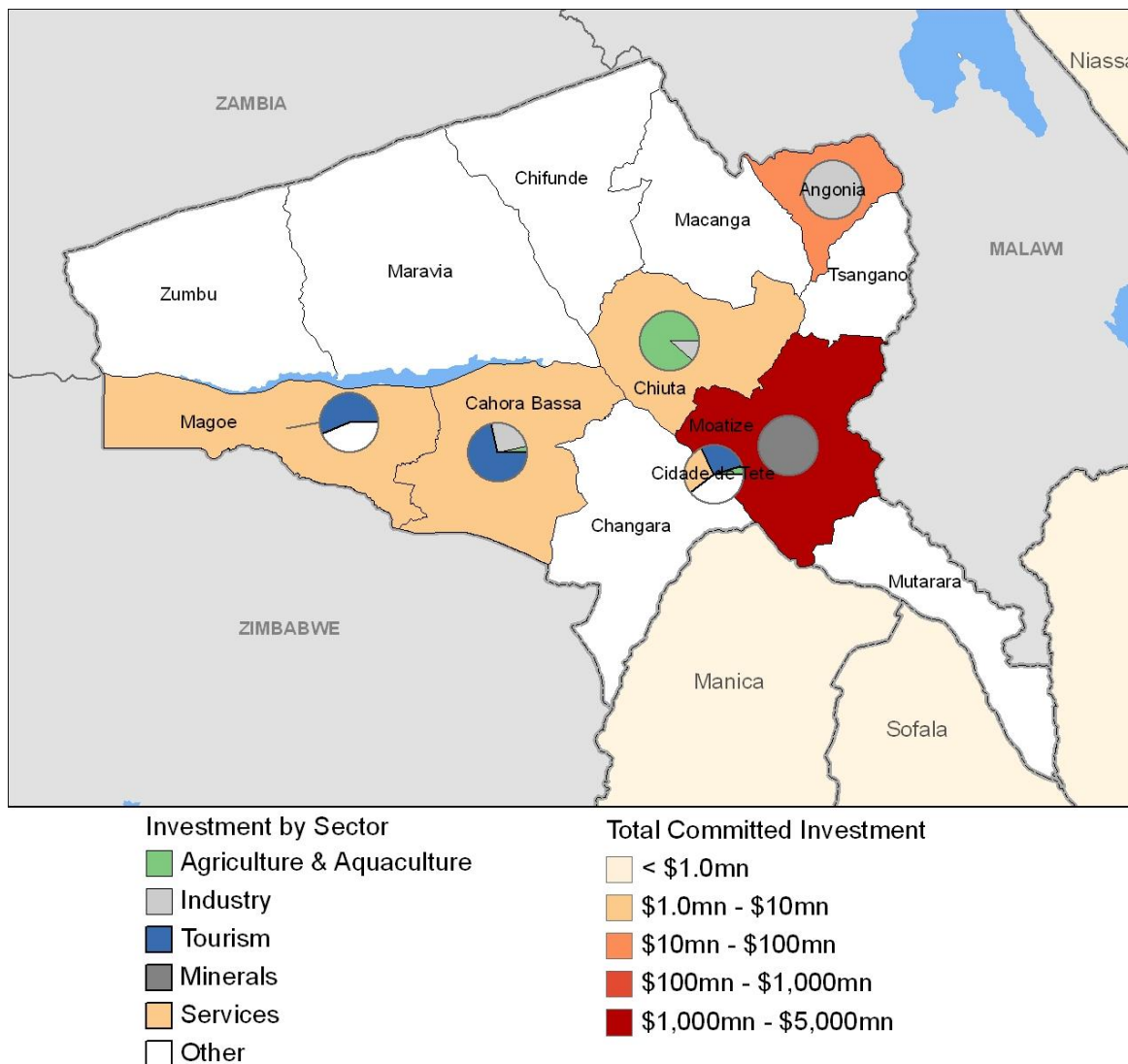
**Table 9. CPI-Authorized Investments in Tete Province in 2005-2009, by Sector**

Sector	2005		2006		2007		2008		2009		2005-2009	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
Transport & communication	..	..	233	\$5,500,000	..	..	186	\$5,000,000	..	..	419	\$10,500,000
Agriculture and fisheries	..	..	100	\$8,223,460	..	..	14	\$150,000	..	..	114	\$8,373,460
Agriculture and processing	55	\$529,485	240	\$2,500,000	..	..	..	..	..	..	295	\$3,029,485
Construction	86	\$1,305,500	37	\$872,478	..	..	25	\$1,669,654	..	..	148	\$3,847,632
Industrial	..	..	..	..	60	\$300,000	96	\$260,000	142	\$21,870,921	298	\$22,430,921
Mineral resources	..	..	..	..	*	\$1,535,011,000	..	..	..	..	0	\$1,535,011,000
Services	..	..	..	..	..	..	..	..	188	\$70,475,782	188	\$70,475,782
Tourism & hotels	35	\$710,000	..	..	..	..	124	\$30,816,542	216	\$28,200,000	375	\$59,726,542
Others	44	\$1,306,480	20	\$60,000	283	\$65,371,550	65	\$507,269	..	..	412	\$67,245,299
<b>TOTAL</b>	<b>220</b>	<b>\$3,851,465</b>	<b>630</b>	<b>\$17,155,938</b>	<b>343</b>	<b>\$1,600,682,550</b>	<b>510</b>	<b>\$38,403,465</b>	<b>546</b>	<b>\$120,546,703</b>	<b>2,249</b>	<b>\$1,780,640,121</b>

\*CPI does not present data for the largest source of FDI

Source: Mozambican Authorities (CPI 2005-2009).

**Figure 5. Tete Province: CPI-Authorized Investments in 2005-2009, by District and Sector**



Source: Mozambican Authorities (CPI 2005–2009).

### 1. Investments in Mine Prospecting and Mining Operations

Mozambique is attracting large investments in new coal mining projects; and the country’s three largest coal deposits—Moatize-Minjova, Senangoe, and Mucanha-Vuzi—are located in Tete Province. The coal reserves in the Moatize district alone total an estimated 6 billion tons.<sup>14</sup> Some of the coal is high-value coking coal used in steel production. A considerable amount is also thermal coal of rather low quality that may not be economical to export but is useful for generating electricity for domestic use.

Vale is undertaking the largest investment project in Mozambique. In 2004, the company paid US\$123 million for a coal prospecting concession in Moatize, and in 2007 obtained a mining concession for Moatize.<sup>15</sup> Following years of preparatory work, it plans to start production in July 2011, when its 35-year concession starts. The company believes that its Moatize operations will in time become the biggest coal production plant in the world—an estimated 12–24 million tons of coal per year over its lifetime. As of

December 2009, the company had invested US\$450 million and employed 3,600 construction workers in the construction phase, of which 93 percent were Mozambican. The number of construction workers will exceed 5,000 in 2010.

By the time it begins mining operations, the company will employ approximately 1,000 mining workers. Purchases of goods and services on the domestic market are expected to reach US\$251 million a year (3 percent of GDP) once the construction is complete.<sup>16</sup> By 2012, Vale's operations may contribute 8 percent of the country's GDP, and by 2015 project royalties and taxes are expected to make up 15 percent of Government revenues. At the local level, the project could generate 12,000 direct and indirect jobs, as well as many vocational training and SME opportunities.

Riversdale Mining established itself in Mozambique in 2006 and held 26 exploration licenses by November 2009, including a 2,500 km<sup>2</sup> mining concession in Benga.<sup>17</sup> The Benga Coal Project, which is being developed in a joint venture with Tata Steel Ltd (Riversdale 65 percent, Tata 35 percent),<sup>18</sup> has an estimated coal deposit of 4 billion tons.<sup>19</sup> The company hopes to start operations in mid-2011 and initially produce up to 2 million tons of coking coal per year. It employed 130–140 workers plus contractors in November 2009. Approximately 1,000 workers will be needed during the construction phase, and 400–600 workers will be needed to produce 2 million tons of coking coal per year. The company is allowed to employ up to 40 percent expatriates at an initial phase. This proportion must not exceed 10 percent later on.

In addition to the mining investments by Vale and Riversdale Mining, there are a number of concessions for exploration in Tete Province that may lead to commercial mining in the future.

- **African Queen Mines** is prospecting for gold in the Fingoe Belt, covering 1,359 km<sup>2</sup>
- **Baobab Resources Plc** began exploration activities for iron, vanadium, and titanium in 2008. Test results indicate a potential of 400–700 million tons of magnetite-ilmenite mineralization. IFC is a strategic partner and holds 11.45 percent of the company's equity as well as a 15 percent stake in this particular project.
- **Coal India Ltd** has announced that it is obtaining a thermal and coking coal prospecting license of 200 km<sup>2</sup>, with estimated reserves of up to 1 billion tons.

## 2. Investment in Transport Infrastructure

The single biggest challenge for Tete's mining companies is to move the mining output to market. Coal is a bulk commodity, and the size of the operations and the efficiency of the logistics chain are what drive profitability in the industry. Connecting the mining areas in Tete Province with international shipping networks will require large investments in transport and port capacity. The logistics chain consists of two major components: land transport and shipping. Three transport routes are under consideration or development to connect Tete Province with the sea: the Moatize-Beira railway corridor, the Moatize-Nacala railway corridor, and barging on the Zambezi River.

### *Exporting via the Moatize-Beira Railway and Beira Port*

The only transport route that will be available by 2011 is via the Moatize-Beira railway to Beira Port. After many delays, the main construction work was completed in January 2010, and the railway line is expected to open later in 2010 after completion of the rail track adjustment to realign the tracks. The Sena (Moatize-Beira) railway line has been rehabilitated by the CCFB Consortium—a joint venture of state-owned Companhia de Ferros de Mocambique (CFM, 49 percent), state-owned Rail India Technical and Economic Services (RITES, 26 percent), and Indian Railway Construction International (IRCON, 25 percent). The World Bank provided US\$110 million in financing to the Government for CFM's share. The cost of rehabilitating the 670 km railway line, of which the Moatize-Beira link is roughly 550 km, was US\$260 million.<sup>20</sup>

The railway line's concession fee is made up of a fixed and a variable component. The fixed component consists of a US\$2 million entry fee and an annual US\$1 million fee from years 11 to 25. The variable component kicks in after 6 years and is 3 percent of turnover for traffic up to 300 million net ton-km, 5 percent for traffic between 300 million and 1 billion net ton-km, and 7.5 percent for traffic above 1 billion net ton-km.

The Sena rail line will have the capacity to carry 6 million tons per year—about 14 percent of the total estimated capacity of Vale (24 million tons per year) and Riversdale (20 million tons per year). It would need to be further upgraded and reinforced to carry larger volumes. In addition to rehabilitation of the rail lines, Beira Port<sup>21</sup> needs to be dredged and modernized. The port has a maximum handling capacity of 12–20 million tons of cargo per year; estimates vary. The upper estimates would require that the port, which is operated by Dutch concessionaire Cornelders (in a 51/49 joint venture with CFM), be efficiently managed.

JICA is financing a project to improve the port's dredging capabilities.<sup>22</sup> In the meantime, the port may be useful for exports to the Indian market, which relies on smaller and less deep-going vessels due to the limited depth of Indian ports. Allowing access for larger ships, however, may require a jetty approach, which would mean construction of a floating port in deeper waters of the Indian Ocean to which coal-carrying vessels could unload their cargo.

Beira Port also needs a new coal terminal, since the old terminal's capacity of 1.2 million tons meets a fraction of the demand. The limited capacity of the terminal is expected to be the most pressing bottleneck for both Vale and Riversdale when they commence mining operations in 2011. A tender has been issued for a multi-user coal terminal with a capacity of 21 million tons. It would take an estimated 30 months to build. Despite its limited capacity, however, the Beira link in the transport route is crucial, since it will take several years to develop an alternative route. In the long term, the port could become the exit point for exports of low-value thermal coal, while the proposed Moatize-Nacala railway link could carry coking coal. According to Vale, it is not "either or" but "both" when it comes to the Beira railway line and the Nacala railway line.

### ***Exporting via a Moatize-Nacala railway and Nacala Port***

According to most stakeholders consulted in Mozambique, the long-term, high-capacity solution for transporting coal to the sea is to rehabilitate and expand the Nacala railway to link Moatize with Nacala Port. The Government has issued a combined concession for the operation of Nacala Port and the railway link. The concession is held by CDN, a Mozambican private company incorporated by two shareholders: CFM, which holds 49 percent, and by *Sociedade de Desenvolvimento do Corredor de Nacala* (SDCN), a private company which holds 51 percent. SDCN is controlled by INSITEC (44.66 percent), NCI (22.33 percent), MG–Consultores (5.39 percent), STP (5.39 percent), GESTRA (5.39 percent), Consórcio de Cabo Delgado (5.28 percent), GEDENA (5.94 percent), and Niassa Desenvolvimento (5.61 percent).<sup>23</sup>

On November 26, 2009, the concession stakeholders signed a Memorandum of Understanding with both the Malawian and Mozambican governments to develop the railway link. The two-track railway project would include construction of a new railway link from Moatize to the border of Malawi, rehabilitation of the railway link in Malawi, and rehabilitation of the existing railway link from the Malawian border to Nacala. The Malawian railways are in such poor condition—derailment is commonplace—that the business community prefers to move cargo from Malawi to Beira or Nacala by road. While there have been discussions about circumventing Malawi if the Malawian and Mozambican parties fail to reach an agreement, this option would be much costlier because of the topography and greater distance.

Nacala Port is one of the few natural deep sea water ports in East Africa, with a potential handling capacity greater than expected coal exports (40–60 million tons per year).<sup>24</sup> Like Beira, Nacala Port also needs a new coal terminal. The combined cost of building a new coal terminal and rehabilitating and constructing the necessary railway links in Mozambique and Malawi is estimated at US\$1.6–US\$2.0 billion. A consulting report commissioned by INSITEC and partners for the construction of a US\$500 million coal terminal that could handle 12 million tons of coal in a first phase has been produced by Odebrechts Consultants for the concessionaires.

An efficient railway link to Tete would serve as a gateway not only to landlocked Malawi, but also to Zambia and Zimbabwe. INSITEC estimates that the entire transport link could be completed, at the earliest, by the second half of 2014. The concession fee for the corridor (railway and port) was negotiated in 2003 and could become a sticking point because one party regards it as too high.

### ***Exporting via Barges on the Zambezi and an Offshore Trans-loading Vessel***

The final logistics solution under consideration is to transport coal on barges down the Zambezi River. Riversdale has completed a series of studies to assess the viability of this option for transporting coal from the company's operations in Benga to an off-shore floating trans-loading vessel in the Indian Ocean.

Although barging was done on a limited scale in the past, none of the transport experts or local government officials consulted during the mission thought that it would now be feasible. Special concerns include the environmental impact, the need to continuously dredge the riverbed, the challenge of transporting and unloading the coal some 40 km into the Indian Ocean, and the associated costs. Riversdale has ordered an environmental and social impact study that will be ready in the fall of 2010, at which time the company may submit a plan to the Government.



In summary, given the proven rich deposits of high-quality coking coal, the main challenge from an operational point of view is arguably the development of an economically viable transport solution. Three main infrastructure bottlenecks may impede the transport of coal to international markets: (a) the capacity of the railway links; (b) the capacity of coal terminals at the ports; and (c) the capacity of the ports to handle ocean-going vessels. The issues associated with building transport infrastructure in Nacala Corridor are formidable, and the mining companies may have little choice but to take responsibility for its construction.

The Beira railway corridor is about to open, but its freight capacity is only about 14 percent of expected future demand from Vale and Riversdale Mining at estimated peak production. The coal terminal at Beira Port, which currently can handle 1.2 million tons, is not able to handle more than 20 percent of the 6 million ton capacity of the Sena railway line. The outstanding tender to construct a 21 million ton terminal would take at least 30 months to complete. Finally, although the dredging of Beira Port will enhance its capacity to handle ocean-going vessels, the Beira Port will not be able to handle the volumes needed for the mining companies to realize the potential of their concessions.

While a concession has been issued for the rehabilitation, construction and operation of the Nacala corridor, there are issues that could delay or impede progress. These include access to finance; agreement about freight rates, cost sharing, and allocation of profits; sovereignty/customs/borders issues; capacity sharing between mining companies and external users; and legal and regulatory issues.

### 3. Investment in Power Supply Capacity

There are advanced plans for new investment in power generation in Tete and surrounding provinces. The plans include seven megaprojects with a combined generating capacity of 6,442 MW, and US\$5 billion of investments in hydroelectric, gas-fired, and coal-fired power stations.<sup>25</sup> If realized, these projects could greatly increase the country's export of electricity and expand the electrification of households and small businesses. For Tete Province, the investments cover two hydroelectric power stations and two thermal coal plants.

**Hydropower:** First, in March 2009, MagEnergy presented an Expression of Intention to the Mozambican Minister of Energy to invest in the Cahora Bassa North Power Generation Development Project. It included an offer to finance the pre-FEED (front-end engineering and design) stage and feasibility assessment.<sup>26</sup> The scheme would have an estimated nominal power capacity of 850–1,250 MW. This power station would be build adjacent to the existing 2.075 MW hydropower station at the Cahora Bassa dam on the Zambezi River?<sup>27</sup> In April 2009, MagEnergy, Ingérop, and Rio Tinto signed a Memorandum of Understanding and a Confidentiality Agreement to explore cooperation on the development of a hydro-electricity project to supply a minimum of 1,000 MW of firm power on a long-term basis, primarily for the use of a Rio Tinto smelter. MagEnergy, Ingérop, and the Industrial Development Corporation also signed a Confidentiality Agreement and sent an Expression of Interest in April 2009.

Second, there are plans to build a hydroelectric power station and a new dam downstream from Cahora Bassa at Mphanda Nkuwa. The capacity and cost estimates vary: INSITEC, which holds 40 percent in the

project in partnership with Camargo Correa (40 percent) and the state-owned Electricidade de Mozambique (EDM, (20 percent), values the project at US\$2.8 billion for a hydroelectric power plant with a 1,500 MW capacity and transmission infrastructure to Maputo. This initial capacity of 1.5 GW could then rise to 2.5 GW in a later phase. Another source refers to it as a US\$1.8 billion, 2,400 MW project. A power purchase agreement with Eskom would secure the investment. The outcome of a social and environmental impact assessment—partly financed by JICA—will determine whether the project is approved. According to the governor of the province, construction could begin by mid-2011, following resettlement of affected families. The dam would create a new 1 km<sup>2</sup> lake near the Cahora Bassa Lake; it would take five years to build using some 4,000 workers.

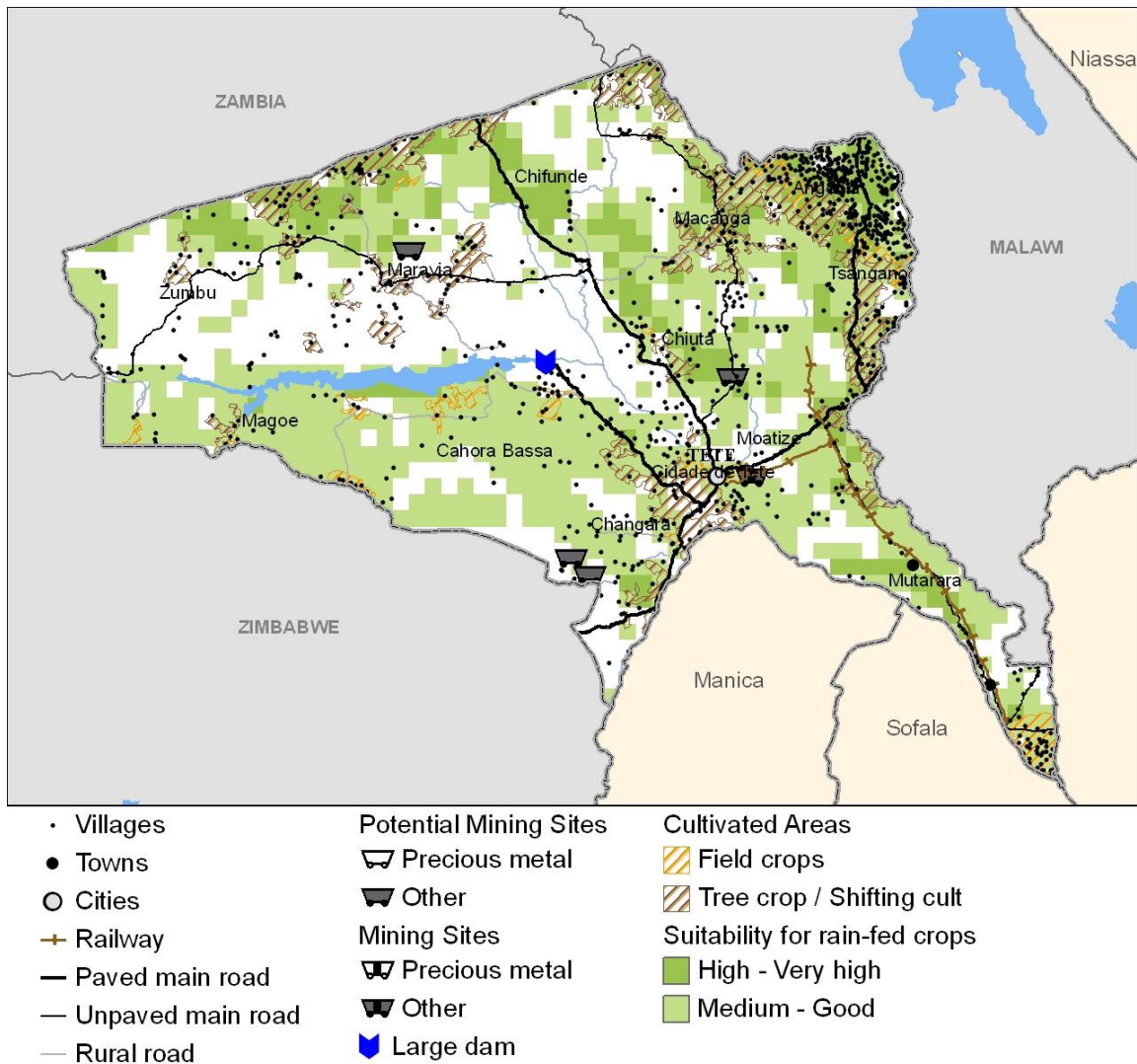
**Coal:** First, Riversdale Mining and joint venture partner Elgas (50:50) have signed a framework agreement with the Ministry of Energy for the development of the Benga power project.<sup>28</sup> The proposed coal-fired thermal power station would be situated near Riversdale's Benga coal project, from which it would get its coal supply. The first phase of the project, involving 500 MW, could be commissioned by April 2013, after which the plant could be scaled up to 2,000 MW,<sup>29</sup> depending on whether the transmission grid is developed to handle the increased capacity. The power plant would cost an estimated US\$1.3 billion to build, and the project owners are seeking a strategic equity partner to take a 50–80 percent interest in the project and provide development and operational capabilities. The Benga power station would deliver power directly to the EDM transmission grid at the Mutambo substation, with power to be sold to EDM and to South Africa's state-owned power utility, Eskom, under separate long-term off-take agreements.

Second, Vale plans to construct a 600 MW thermal coal plant to take advantage of the thermal coal deposits in its concessions. A framework agreement has been signed with Government. IFC is currently investigating the feasibility of providing partnership and finance for this project. Some of the thermal coal will be used in power generation for domestic industrial use, and some will be exported to South Africa and Zimbabwe.

In addition to the plans to build new electricity generating capacity, a World Bank-funded Regional Transmission Development Project will progressively connect the proposed coal and hydro projects to the electricity networks in Mozambique and South Africa. The planned first phase of the project, with an estimated cost of more than US\$1 billion, involves the construction of a 765 alternating current (AC) system from Matambo in the Tete region to Maputo. IDA and the World Bank Group's Public-Private Infrastructure Facility (PPIAF) are financing the studies, and an IDA credit of US\$110 million will finance EDM's equity in the proposed project, which will be implemented as a PPP.

These investments in new power generation capacity and distribution are badly needed, as frequent power outages adversely impact businesses and the relatively few connected households in the province. One coal mining company in Moatize estimated that it faces monthly outages of 42–50 hours, and recently had to rely on its diesel generator for four days in a row, which drastically increased the company's energy costs.

**Figure 6. Tete Province: Cultivated Areas and Mining Sites**



#### **D. CHALLENGES AND CONSTRAINTS**

The national and local governments must act to maximize gains from the mentioned investments Based on the challenges noted above—as well as input from stakeholders in Tete Province and elsewhere in Mozambique—the following section offers specific suggestions on how and where the governments might proceed. Areas for attention include (i) the local investment climate; (ii) linkages between investors and local entrepreneurs; (iii) trade facilitation; (iv) government capacity to plan, coordinate, and implement work; (v) matching skills training with demand; (vi) competition and regulation in the transport and energy sectors; (vii) transparent and accountable oversight of mining revenue; and (viii) social and environmental effects.

## 1. Improving the Local Investment Climate

Tete town is full of entrepreneurial activity to meet the strong demand for accommodations, catering, transport, telecommunications, and other services from the many expatriate workers and business visitors who come to the province. The new investors also require various goods and business services. Despite this economic activity, however, the investment climate is unfavorable for entrepreneurs in the formal sector, who waste time and energy dealing with a complex and costly bureaucracy. This cost of doing business in the formal sector, in turn, has spawned a large informal sector. The provincial government's strategic development plan has noted that addressing the local investment climate is a top priority. And government could do much to ease this burden.

The World Bank's Investment Climate Assessment (ICA), based on an enterprise survey conducted in 2008, showed that practices of informal competitors are the single largest constraint to the operation of formal sector companies (49 percent of companies rated it as one of the top 3 obstacles). Other serious obstacles, according to many companies, include access to finance (42 percent), tax rates (36 percent), crime, theft, and disorder (31 percent), transportation (27 percent), and unreliable electricity supply (25 percent). In addition, the enterprise survey results are supported by the *Doing Business 2010* indicators, which highlight that the country's regulatory framework is particularly slow, costly, and burdensome in dealing with construction permits, employment of workers, registration of property, trading across borders, and closing a business.

A number of concerns were raised about the rules and effectiveness of the public administration in Tete Province. These included the time associated with dealings at the one-stop shop; rules about issuing business licenses only to companies with a physical premise (impeding leasing and contractual agreements); and the weak capacity of environmental authorities to conduct environmental impact assessments (EIAs). Some investors also mentioned that CPI is overstretched, given current demand, and that the country could potentially attract even more investment if there were a single, overarching unit to which entrepreneurs could turn—instead of the large number of often overlapping institutions such as CPI, the Mozambique Institute for Export Promotion (IPEX), the Ministry of Mineral Resources, and more recently, the Institute for the Promotion of Small and Medium Sized Enterprises (IPEME). There were also concerns raised about renewing work permits, and about the huge fines imposed by the Labor Department for disputed reasons.

Lack of access to land is also a constraint, although the MCC's countrywide Land Tenure and Reform Project should benefit Tete Province. The program will boost policy and regulatory monitoring in the land sector (there is a Land Law but no private land), build the institutional capacity of provincial and municipality systems for land administration, and implement initiatives to register land and issue titles for both communities and businesses.

In March 2010, MCC announced that it will be using satellite imagery to support the Land Tenure Project<sup>30</sup> in a number of districts and municipalities—but none in Tete Province. Formation of the Land Policy Consultative Forum, a high-level government policy group, is expected in the first quarter of 2010. A Land Administration Needs Assessment (including zoning), which will define priority areas for improvement and streamlining of land administration, is expected to be completed by August 2010.

Easing the administrative burden, and reducing inefficiencies that confine most of Tete's domestic businesses to the informal sector, could also have a major impact. Surveys of Mozambique's micro and small companies reveal that the practices of informal companies are their biggest concern, along with the lack of financial services. Informal businesses are generally unable to service large companies. Clearly, policies aimed at improving the business environment for microenterprises and for SMEs are vital. And improving the investment climate will be critical if the provincial government is to expand the number of economic agents, raise the confidence of investors, and broaden the taxable base in order to increase tax revenue from MT 311 million in 2006 to MT 500 million in 2011.

## 2. Creating Business Linkages by Nurturing Local Entrepreneurs

Local authorities want to nurture local entrepreneurs and promote the integration of domestic enterprises into the supply chains of the multinationals that invest in Mozambique. This is especially important since both the mining and energy sectors are capital rather than labor intensive. Vale's global corporate linkages strategy for local procurement from SMEs may prove to be a useful basis for future procurement from local suppliers.

The electricity, water, and construction sectors and the extractive industries sector employed only 1.2 percent and 0.3 percent, respectively, of the labor force in Mozambique in 2004–2005.<sup>31</sup> The mining companies in Tete outsource some transportation, training, and laundry services to domestic companies, but procure most inputs of goods and services from South Africa. There are few economic activities in Tete that meet the demands of these new investments—for example, there are no car mechanics in Tete, so cars must be sent to Maputo for service; and there are no options for leasing cars, companies have to operate their own fleets.

To promote local procurement, the standards and quality procedures of local companies must be raised, and new supply capacities must be promoted. There is great potential for domestic procurement by a wide variety of enterprises, including energy and mining companies (metal work, plastics and steel inputs); construction companies (materials and services); transport and logistics companies (road, rail and freight transport); services (industrial maintenance and repair services, tourism and hospitality, security, cleaning, catering, printing, administrative services, ICT); and agribusiness (food and beverage production, packaging, storage and distribution).

## 3. Facilitating Trade

Trade transaction costs are too high—that is, bringing goods in and out of the country is a real obstacle. In general, the small traders—the MSMEs that Mozambique needs to nurture—suffer most from inefficient and burdensome customs procedures. The *Doing Business 2010* indicators reveal that, in international comparison, Mozambique ranked 136 out of 183 countries in ease of cross-border trading.<sup>32</sup> The number of required documents is too high and the time it takes to import and export is too long. The Logistics Performance Index for 2010 also shows that Mozambican customs is particularly burdensome (145 out of 155 countries).

KPMG's Business Confidence Index for June 2009, a survey of some 938 companies, ranked export barriers as the most negative out of 41 factor impeding business in Tete Province (Table 10). The

evidence therefore points to border and customs issues being burdensome in Mozambique in general and in Tete Province in particular. Improving trade procedures—by harmonizing and streamlining regulatory measures in the trade and transport areas—could lower costs and create new business opportunities. For example, given the country’s limited capacity to produce industrial products, the megaprojects currently have to rely on industrial tools, mining vehicles, turbines, and other materials from abroad. High trade transaction costs reduce the profitability of producers and consequently reduce investment.

Trade barriers are not limited to the country’s borders. Tete Province and the countries on its border—Malawi, Zambia and Zimbabwe—are constrained by the capacity of the old bridge in Tete town, which is the only way for trucks to cross the Zambezi River. It is currently being rehabilitated to increase the load capacity at an estimated cost of US\$7.4 million; but the construction, which is causing hour-long traffic jams, will not be completed before mid-2011.<sup>33</sup> The old bridge also has a weight restriction below the regional axle load limit, which may impede intra-regional trade. The Government is negotiating with a Portuguese consortium for the construction, operation, and management of a second bridge, as well as operation, management, and maintenance of surrounding roads.<sup>34</sup> This bridge will be ready earliest by 2014.

**Table 10. KPMG’s Business Confidence Index, June 2009**

Most positive factors		Most negative factors	
National level	Tete province	National level	Tete province
1. Postal & communication services	1. Internal political situation	1. Illegal imports	1. Export barriers
2. Electricity & power supply	2. Electricity & power supply	2. HIV/AIDS, malaria, other diseases	2. Bureaucracy
3. Contract enforcement	3. Postal & communication services	3. Crime level (personal level)	3. Interest rates
4. Regulation for starting business	4. Market demand	4. Organized crime	4. HIV/AIDS, malaria, other diseases
5. Market demand	5. Metical behavior	5. Corruption	5. Corruption

Trade is also being facilitated by several transport infrastructure projects. A stretch of 116 km of the N7 road between Tete town and Zobue is being rehabilitated at an estimated cost of US\$25.7 million. Another 91 km of the N7 road between Changara and Tete town is being resealed and rehabilitated at an estimated cost of US\$8.7 million. And JICA is helping to finance the construction of bridges on rural roads in the province.<sup>35</sup>

#### 4. Building Government Capacity to Plan, Coordinate, and Implement Work

Public and private sector stakeholders agree that a top priority should be to build capacity at the provincial and municipal levels to plan and coordinate implementation of large investment projects. The provincial government and municipalities in Tete have scarce human and financial resources, and little experience in coordinating and implementing large-scale economic development. For example, some departments in the public administration do not communicate with each other, including the transport and public works departments, though their collaboration is essential to expand transport infrastructure. Because Tete is disconnected from much of the country, it urgently needs a shared vision and strategy for the transport sector. While a number of inter-departmental teams are now trying to address issues related to logistics, accommodation, and roads, more effective coordination will be needed. Communication between the provincial government and the municipalities also needs to be improved.



The Road Sector Strategy 2007–2011, prepared for the Government by the National Roads Administration, with the assistance of the Road Fund and Ministry of Public Works and Housing, needs to be coordinated with future railway plans. Current plans to establish a rail link between Nacala Port and Tete will cover not only two provinces (Tete, Nampula) but also two countries (Mozambique, Malawi). The Nacala Corridor could also be important to Zimbabwe and Zambia by connecting the region with the North-South Corridor stretching from Dar es Salaam to Durban. While national leaders in the region generally acknowledge the benefits of regional projects, they do not always agree on the details of implementation. Regional coordination and collaboration will be essential.

As Tete increasingly becomes the focus of international development programs, the Government will also need to coordinate donor assistance. As more projects target the province, it will face many of the same human resource challenges as the central government. Given current limitations, the provincial and municipal governments will have to use their human resources efficiently and avoid duplication as international and domestic agencies seek to train the same staff, address similar issues, and demand more attention from local officials.

## **5. Preparing for a Transparent and Accountable Oversight of Mining Revenue**

Mining output is minimal at the moment but this is expected to change. Vale and Riversdale Mining will start operations in 2011, and some of the other 33 companies that hold coal exploration and research licenses will soon move to an operational phase. Mining activities will help raise government revenue through its collection of concession fees (it collected US\$123 million for Vale’s coal mining concession), tonnage fees (about 3 percent), and transport fees (through CFM’s 49 percent stake), in addition to any other taxes and royalties.

To improve the legal and regulatory framework for the mining sector, the World Bank supported a seven-year, US\$19.2 million Mineral Resources Management Capacity Building Project, which closed in December 2007.<sup>36</sup> The project helped built institutional capacity for enforcement, to administer mining titles, and to monitor the sustainable development of small-scale mining. It also developed a databank and geological maps, strengthened institutional capacity for environmental management, and established legal rights and implemented services for artisanal mining activity.

According to a World Bank Extractive Industries Transparency Initiative Plus Plus (EITI++) scoping exercise in the fall of 2008,<sup>37</sup> Mozambique has laid a good foundation for managing its mining resources. Most of the legal, regulatory, and contractual framework is in place, up to date, and in line with international good practice; and transparent processes have been used to award recent contracts and licenses. Reforms are ongoing with the tax authority in regard to tax administration, and a megaprojects unit has been established in the tax authority to lead work on reporting and auditing tax revenues from such projects. On May 15, 2009 Mozambique was accepted as an EITI “candidate” country.

The challenge now is to shift to the effective management of mining investments as they begin to materialize. Revenue from extractive industries has so far been minimal, and little work has been done on revenue management and distribution strategies. Public planning for sustainable projects and programs could also be strengthened. The World Bank report noted that the Government faces three major

challenges in regulating the mining sector: (a) ensuring the human resource, training, and institutional capacity to implement and monitor mining operations, enforce environmental regulations, and improve efficiency of the value chain; (b) implementing transparent revenue collection and reporting; and (c) planning for the wise use of revenues generated by such operations.

## 6. Producing Skills that Match Private Sector Demand

Tete Province has a limited local pool of educated people, and the expatriate workforce is growing fast. Demand is strong for both professionals and workers in the transport, catering, cleaning, retailing, banking, and construction sectors. However, the local education systems fail to produce the skills that companies need. According to one study, the workforce in Tete Province—and in Mozambique in general—lacks high-quality, market-relevant technical skills.<sup>38</sup> Nearly 50 percent of the economically active population has either no education or basic literacy skills. More than 75 percent of the population has 5 or fewer years of school attendance, while 8.5 percent achieve secondary or tertiary education. The pupil-to-teacher ratio in the province increased from 46 in 1998 to 70 in 2005.<sup>39</sup>

The province has recently established a number of higher education institutions that generally focus on social sciences rather than training for commercial enterprises. DANIDA, for example, has been financing the construction of institutions of higher education, including a college for teacher training in Tete town. However, the public technical and vocational education and training system, offering courses designed by the Ministry of Education and Culture and the Ministry of Labor, is unable to respond to the growing demand for skills. Only one percent of those enrolled in school pass through the technical school system, which is characterized by poor quality of training, low market relevance, lack of social demand, and issues of access and equity. With student failure rates of 50 percent, dropout rates of 30 percent, and high percentages of repeat learners, only 25 percent of graduating students are able to find employment. The Ministry of Education and the African Development Bank are financing the construction of two technical schools, but private sector participation in training to address immediate skills needs would be welcome.

The megaprojects may present an opportunity to address these concerns.<sup>40</sup> A recent report on the demand for skills associated with megaprojects in Mozambique made an assessment of which skills are needed:<sup>41</sup>

- In the **mining sector**, (i) engineers (mining, chemical, electrical, mechanical); (ii) specialists (metallurgists, geologists, analytical chemists); (iii) professionals and technicians (mine supervisors, mining team leader, mining technician); (iv) artisans and trade workers (diesel mechanics, electricians, fitters and turners, platers/boilermakers/welders, riggers, coded welders, plant and machine operators, assemblers); (v) elementary workers related to core business and supply chain (mine worker, quarry hand, coal hewer, shuttle car operator).
- In the **hydroelectric sector**, (i) engineers (mechanical, electrical, power mechanical, turbine, safety), (ii) professionals and technicians (hydroelectric substation manager, hydraulics/pneumatics, power generation controller, power station attendant, turbine controller); and (iii) artisans and trade workers (welders, blacksmiths, boilermakers, instrument mechanics, mechanics, electricians, fitters and turners, sheet metal workers, structural platers, diesel mechanics).



- In the **construction sector**, (i) engineers (civil, electrical, mechanical, structural, safety, design); (ii) professionals and technicians (project manager, architect, quantity surveyor, estimator, foreman, construction manager, site supervisor); and (iii) artisans and trade workers (bricklayers, refractory masons, plasterers, tillers, painters, carpenters, welders, millwrights, mechanics, electricians, fitters and turners, sheet metal workers, structural platers, shutter hands).

Given the long-term time horizon for mining and energy projects—potentially 70 years for the coal mines, and no end date for the hydroelectric power stations—the public authorities have strong incentives to adjust their supply to projected demand in these sectors. The demand is evident in the fact that Vale finds it necessary to send Mozambican staff to Brazil for training, and has arranged with a Brazilian institute (SENAI) to train people in Mozambique. The company is particularly interested in establishing specialized technical schools in Tete, as a more sustainable long-run solution.

The Mozambique Higher Education, Science and Technology Project, a US\$40 million IBRD loan announced on February 25, 2010, should increase the number of graduates with a science background. The project will strengthen the National Council of Accreditation and Quality and the National Institute of Distance Learning through training and capacity building. It will also support implementation of the Government's accreditation and credit transfer pilot systems; develop the national higher education qualifications framework; and pilot and evaluate higher education financing reforms. In addition, the project will raise the quality of teaching and research through competitive grants and loans to qualified public and private higher education institutions; and will provide scholarships for undergraduate students from economically disadvantaged backgrounds and for masters and PhD candidates.

## 7. Maintaining Open Access to Infrastructure Assets

To realize the benefits from the planned expansion of the country's electricity supply capacity, the Government will need to create a regulatory framework that governs independent power producers, the rights of investors, and sales to domestic and regional markets—Mozambique currently exports electricity at unfavorable prices, which goes against the Government's interest to sell any new capacity at market price. Further, since only one in ten Mozambicans has access to electricity, the Government must balance foreign sales with the expansion of domestic electrification.

In the Poverty Reduction Strategy Program (PARPA II), the Government outlines a program for the energy sector that entails electrification, liquid fuels, renewable energy, and inter-sectoral collaboration. A recent World Bank appraisal of an energy project<sup>42</sup> found that the main challenges in Mozambique's power sector are to (a) provide affordable electricity to meet the rapidly growing domestic demand; (b) electrify the vast areas of the country beyond the EdM grid, and (c) ensure that power shortages do not become a constraint on economic growth. In addition, the main sector institutions (ME, EdM, FUNAE, and CNELEC) need to develop the capacity to negotiate and manage future In Tete province, power outages are adversely affecting businesses—one coal mining company in Moatize estimated that it faces monthly outages of 42-50 hours.

That project, a five-year, US\$80 million Energy Development and Access Project, announced in January 2010, aims to accelerate access to electricity and modern energy services in peri-urban and rural areas in a

sustainable and commercial manner. Specifically, the project will: (a) increase grid-based access and improve the reliability of supply in peri-rural areas; (b) increase off-grid and rural access to electricity; (c) improve grid-based access to modern energy services; (d) improve performance and build capacity in the sector institutions responsible for expanding electrification; and (e) elaborate a National Rural Electrification Strategy and Investment Program.<sup>43</sup>

In the railway sector, the Government must ensure that all economic agents have access to the railways. Guaranteeing open access to these logistical assets can be a challenge if private mining investors control and operate the railway link.

## **8. Minimizing the Social and Environmental Effects of Mining and Energy Projects**

The new investments in mining and energy production will cause the resettlement of some local communities and produce adverse externalities through environmental pollution. The economic success of Tete town is putting additional stress on already stretched public services, and the inflow of guest workers may spark health problems unless the local government and the new employers cooperate to address social ills. The responsibility for the resettlements will fall to the private companies that procure the land. Fair and transparent support and compensation policies are essential for the welfare of local citizens and the support of local communities.

Riversdale Mining is in the process of elaborating a 5-year social development plan that will have long-term effects. The Benga Village at Riversdale Mining's Benga concession hosts 881 tenements with more than 2,000 inhabitants who need to resettle. The company's social projects include a brick-making facility, a mobile health clinic, and a few farming projects. As the company moves to the construction phase, the families will need to move to new land. This process will most likely accelerate in 2010.

Vale is also engaged in resettlement. The company is resettling on average five families (with an average of 4.7 family members) per day. In total, 1,313 families and 60 businesses will be moved from its Moatize site, and some members of these families are involved in Vale's construction work. In May 2010, six hundred fifty families have been provided with new residences at Cateme, a new area about 40 km from the municipal town of Moatize, and another 112 have been resettled near the 25 de Setembro suburb of the town.<sup>44</sup> As part of its resettlement program, the company is also investing in social development. It invested US\$7 million in 2005–07, and over the next three years plans to spend US\$4 million a year on projects related to infrastructure, urbanization, health (including three health centers and one orphanage), productive activities, education (including teacher training and a mining technical school), culture, and sports. So far, there has been no independent evaluation of the resettlement program.

In terms of environmental impact, the companies and local authorities must ensure that the negative effects associated with strip mining and coal-fired power plants are minimized. These are serious environmental challenges, and effective governance will be key to reducing the long-term consequences. The challenge is not only to develop technical expertise that helps prevent unnecessary environmental effects, but also to offer expeditious and objective services.

To help the Government address environmental issues associated with governance in rent-earning sectors (forestry, fishery, mining, wildlife tourism), as well as environmental safeguards in growth sectors and adaptation to climate change, the World Bank is preparing a technical assistance project, Supporting the Policy Dialogue on Natural Resources, Environment and Adaptation to Climate Change, due in June 2010. The project will focus on the development and implementation of appropriate policies in the areas of natural resources, environment, and adaptation to climate change, which will feed into the next poverty reduction strategy. The energy and mining developments in Tete Province involve all of these issues, and the appraisal report may provide the right input into the environmental debate, which will only grow louder as the mining and energy projects progress.

Another social impact is the high rate of deadly disease from the large influx of young men in the mining and construction industries. Local leaders argue that the large inflow of male workers has been followed by an influx of sex workers—which can have a destructive impact on local communities. The health system lacks the capacity to meet this demand. To provide some relief for local healthcare clinics, DANIDA is financing the construction of a new hospital in Tete municipality. However, much still needs to be done to improve the quality and equitable access of health services and fight the rise in HIV/AIDS and other diseases.

Finally, the growth in the population of Tete town has put severe stress on the already fragile public services system. The municipality is unable to provide adequate water and sanitation services, waste disposal (many areas have no services), urban planning and zoning services (there is a problem of uncontrolled building), road access (traffic has dramatically increased), health care, and education services. Service provision in outlying regions is even more severely affected.

## E. RECOMMENDATIONS

Based on the preceding overview, analysis and recommendations, a number of possible initiatives emerge.

- Establish a provincial development authority or taskforce responsible for the planning, coordination, promotion, and facilitation of new investment projects. Rather than establishing yet another public institution, this authority or taskforce could be embedded within an existing agency or through enhanced collaboration between existing agencies. The key to success would be to find a balance between the authority's executive powers and broad support from the various stakeholders.
- Design and implement a program to ease the burden on businesses, focusing on issues identified by a survey. While the *Doing Business* indicators and the business survey data underpinning the World Bank's Investment Climate Assessment are an excellent starting point, the provincial initiatives should be based on the findings of a business survey in Tete province itself. Initial observations and consultations with businesses in Tete suggest that the program should address barriers to formality (rules for hiring workers, etc); improve the performance of the one-stop shop in Tete town; and remove the requirement that business licenses be issued only to companies with a physical presence.

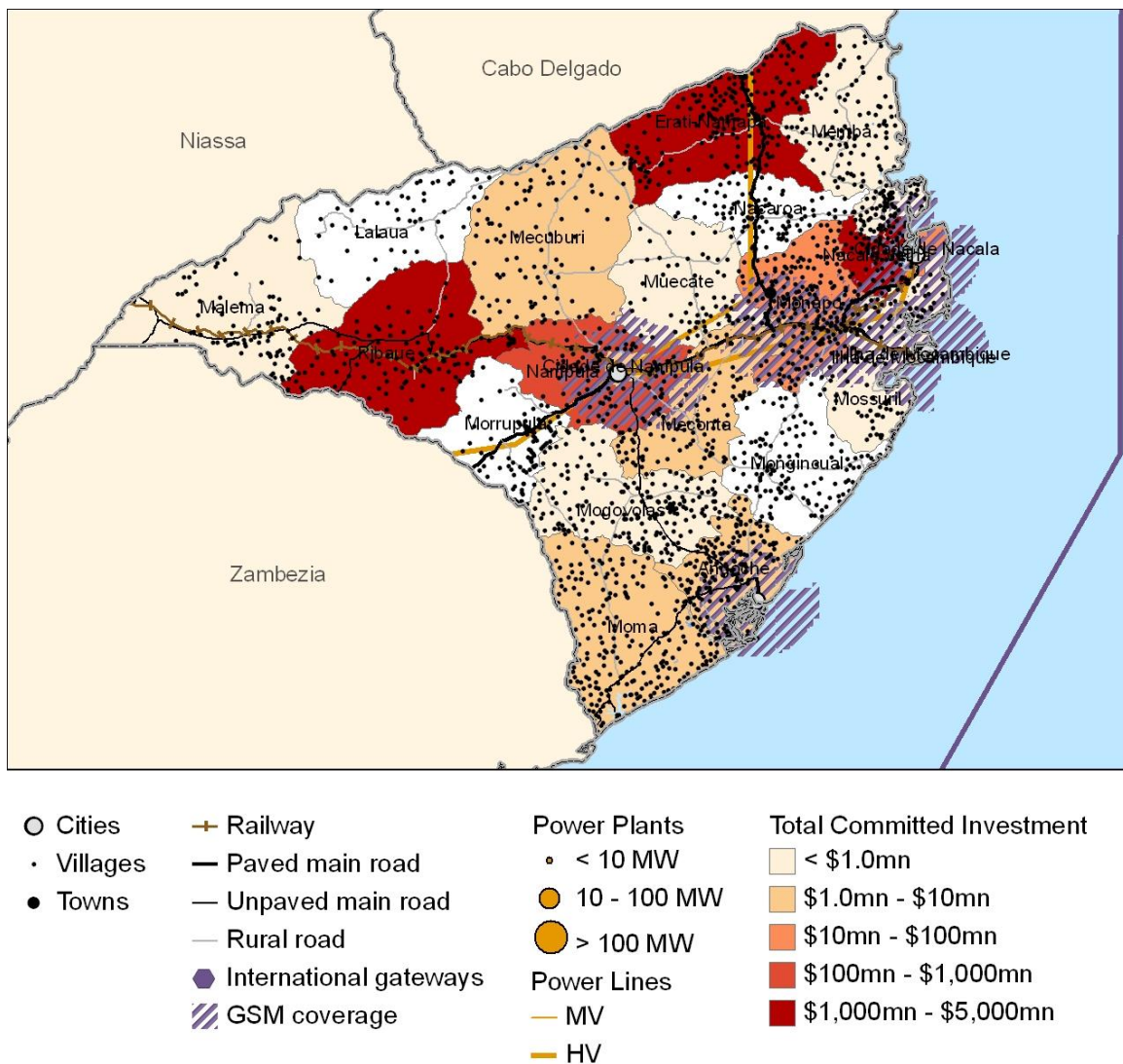
- Consider the scope for and sustainability of public-private partnerships in the establishment of:
  - vocational training institutes tailored to produce skilled labor for the new investors and suppliers.
  - an MSME linkages program that connects big investors with local MSMEs.
  - healthcare clinics near the mines, and public awareness campaigns to combat HIV/AIDS in mining areas.
  - social programs linked to the resettlement of communities.
- Establish a local task force that monitors the resettlement of local communities.
- Promote the nascent local civil society and NGO community in Tete Province—an alert civil society would be useful to assess and monitor the performance of both the local government and the miners and power producers.
- Strengthen social and environmental safeguards management, including strengthening the capacity of agency staff to conduct better environmental impact assessments.
- Reform the customs authority.
- Ensure that there are geological maps for the province.
- Speed up the evaluation of the merits of constructing a new bridge near Tete.
- Link the approval of new investments in power generation to power distribution.
- Minimize the risk of major infrastructure projects by selecting partners for joint ventures with proven expertise and a solid financial background.
- Consider implementing the EITI++ recommendations:
  - Environmental and social regulations and compliance: enhance the environmental and social regulatory framework and strengthen the capacity to enforce compliance and apply sanctions for noncompliance;
  - Tax collection and audit capacity: strengthen existing mechanisms for modeling mining revenues based on applicable fiscal provisions; for the collection and auditing of such revenues; and for inter-agency coordination;
  - Transparency and accountability: implement mechanisms for information sharing, transparency, and accountability, including eventual publication of extractive industry revenues and possibly extractive industry contracts, in line with international best practice;
  - Revenue management and distribution: develop revenue management strategies to prepare for the large increase in revenues from extractive industries.

## Chapter 4 – Prospects for Growth Poles in Nampula Province

### A. INTRODUCTION

Nampula is the most populated province in Mozambique, and the center of economic activity in the north of the country. With 4.1 million inhabitants—close to 20 percent of the population—the province has nearly the population density of Maputo City. It represents 10 percent of the country in surface area, and consists of 21 districts and 6 municipalities, stretching along 460 km of coastline.<sup>45</sup> The provincial capital, Nampula, is the third biggest city in Mozambique, and its port city, Nacala, is one of the best deep water ports in East Africa.

**Figure 7. Nampula Province: Infrastructure Assets and CPI-Authorized Investments in 2005-2009**



The province is rich in natural endowments. It is served by 29 river basins and has more than 7 million ha of forests in 6 reserves covering an area of 316 km<sup>2</sup>, 90 percent of which is publicly owned. Its

widespread mineral reserves—mostly aquamarine, tourmaline, topaz, and corundum—have attracted large-scale investments in recent years. In 2007 alone, the province had seven units installed for mining operations, including the major project Moma Heavy Sands.<sup>46</sup>

Nampula's water and mineral resources, climatic conditions, and long stretch of coastline could support the development of commercial agriculture, forestry, tourism, mining, and fisheries—yet smallholder farming remains the backbone of the economic activity and the major source of employment. Of 4.5 million hectares of land available for agriculture in Nampula, only 74,000 are irrigated. The major food crops include cassava (271 ha), corn (170 ha), peanuts (84 acres), cowpea (78 ha), and sorghum (66 ha).<sup>47</sup> Despite a high potential for scaling up and processing, agriculture in the province depends primarily on rudimentary technologies; limited resources, agrochemicals, and machinery; low use of irrigation systems; and poor capacity for abstraction, storage, and water use.

Nampula contributes about 13 percent to the national GDP and generates 8 percent of formal employment.<sup>48</sup> Since 2003, its growth rate has averaged a remarkable 8 percent a year. In spite of this good performance, however, the province's poverty rate of 54 percent has remained unchanged, and only 31 percent of the population has access to drinking water and 13 percent to electricity.<sup>49</sup>

## **B. PROVINCIAL STRATEGY AND PRIORITIES FOR DEVELOPMENT<sup>50</sup>**

The Nampula Provincial Strategy for development is based on four pillars:

- Economic growth
- Participatory government
- Infrastructure development and promotion of the environment
- Development of human and social capital.

The strategy is aligned with nationwide and global policies and strategies, including Agenda 2025, PARPA II, QGP 2005–2009, Strategy for Food Security and Nutrition (ESAN), Strategy for the Promotion of Agriculture (ECA), the Strategic Plan for Roads (EPE), Rural Development Strategy (RBS), New Partnership for Africa Development (NEPAD), Africa Peer Review Mechanism (APRM), and the global Millennium Development Goals (MDGs).

The cross-cutting objectives of the Provincial Strategy are to:

- Coordinate the activities of different development actors in Nampula, to ensure the effective use of scarce resources
- Create strong public-private partnerships for rapid economic growth
- Strengthen the institutional framework of the province, to increase responsiveness to community demands
- Expand, in a balanced way, the network of urban and rural infrastructure



- Improve the social development outcomes.

In addition to its cross-cutting strategy, the province supports programs in specific sectors. These include:

- **PROA—Program for Agricultural Productivity**, which helps to combine and coordinate interventions by different actors in the major agricultural value chains, such as livestock and fisheries. It also aims to increase the productivity and incomes of small farmers by making available machinery, seeds, fertilizers, and pesticides; providing technical assistance for access to finance; and helping to establish associations for specialty products for domestic and foreign markets.
- **PROAB—Program for the Expansion of Base Businesses**, which aims to diversify the province’s economy to create jobs, increase tax revenue, and generate more value added, by encouraging the creation of large and small enterprises, and maximizing the impact of megaprojects such as Moma Sands, a titanium mining operation in the Moma District. PROAB will also address the challenges of implementing a successful Special Economic Zone in Nacala.
- **PROATUR—Program for Tourism Development**, which aims to promote jobs and scale up utilization of the region’s coastline and natural resources through implementation of the USAID-funded Northern ARCO project. The program is supporting infrastructure development, scaling up of tourism resources, marketing of Mozambique’s tourism sector, and training of tourism personnel.
- **Program for Rural Markets** aims to support the development of rural markets by enabling the production and associations of various crops and livestock.

### C. CURRENT AND PLANNED INVESTMENTS

Between 2005 and 2009, CPI approved 72 proposals in Nampula, with expected investments of about US\$8 billion and employment generation of more than 18,000. While these projects represent less than 10 percent of the total number of private investments expected to flow into the country, they are close to half in terms of value.<sup>51</sup> Most of these proposed investments are concentrated in the agribusiness and mining sectors, and were captured by two megaprojects: *Ayr-Petro Nacala*,—a project to build and operate an oil refinery in the district of Nacala-a-Velha; and *Lurio Green Resources*, a eucalyptus growing and processing operation in Ribawe, Mecuburi, and Nampula-Rapale. As shown in Figure 8, both the proposed investments and expected employment generation are concentrated in Nacala-Velha, Ribawe Erati, Nampula City, Monapo, and Nacala. At the national level, only 18 percent of CPI-authorized investments were actually implemented between 2005 and 2006. However, the authorized investments are a good indication of the potential for private sector growth in the province.

Those sectors identified as having high potential for growth and poverty reduction in Nampula are agribusiness, mining, and tourism. Infrastructure upgrades and mine developments in Tete and the Nacala Corridor also raise the prospects for transport and related services and increased port revenues in Nacala. The region also has good prospects for growth in horticulture, biofuels, and fishery production, as well as wood processing and other sustainable forest-based activities.

**Table 11. CPI-Authorized Investments in Nampula by District, 2005–2009**

District	2005		2006		2007		2008		2009		2005-2009	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
Angoche	..	..	723	\$6,032,000	..	..	..	..	..	..	723	\$6,032,000
Ilha de Moçambique	4	\$67,500	..	..	700	\$956,800	..	..	105	\$2,366,500	809	\$3,390,800
Meconta	103	\$388,000	178	\$1,014,206	..	..	..	..	28	\$4,000,000	309	\$5,402,206
Mecuburi	..	..	..	..	..	..	..	..	0	\$4,254,000	0	\$4,254,000
Memba	..	..	12	\$500,000	..	..	..	..	..	..	12	\$500,000
Mogovolas	..	..	..	..	..	..	..	..	20	\$130,000	20	\$130,000
Moma	..	..	..	..	50	\$3,500,000	..	..	..	..	50	\$3,500,000
Monapo	90	\$950,000	22	\$1,210,000	..	..	3,000	\$51,500,000	..	..	3,112	\$53,660,000
Mossuril	33	\$200,833	..	..	..	..	..	..	20	\$405,000	53	\$605,833
Muecate	250	\$958,823	..	..	..	..	..	..	..	..	250	\$958,823
Malema	6	\$28,000	..	..	..	..	..	..	..	..	6	\$28,000
Nacala	230	\$7,066,766	113	\$4,720,845	168	\$19,027,786	50	\$1,175,000	126	\$3,081,753	687	\$35,072,150
Nacala Velha	..	..	..	..	557	\$5,004,805,000	2,500	\$20,191,000	..	..	3,057	\$5,024,996,000
Nampula	413	\$27,738,303	35	\$560,000	685	\$32,720,540	313	\$14,620,117	323	\$82,020,144	1,769	\$157,659,104
Ribawe, Erati	..	..	..	..	..	..	..	..	7,500	\$2,209,000,000	7,500	\$2,209,000,000
<b>TOTAL</b>	<b>1,129</b>	<b>37,398,225</b>	<b>1,083</b>	<b>14,037,051</b>	<b>2,160</b>	<b>5,061,010,126</b>	<b>5,863</b>	<b>87,486,117</b>	<b>8,122</b>	<b>2,305,257,397</b>	<b>18,357</b>	<b>7,505,188,917</b>

Source: Mozambican Authorities (CPI 2005-2009).

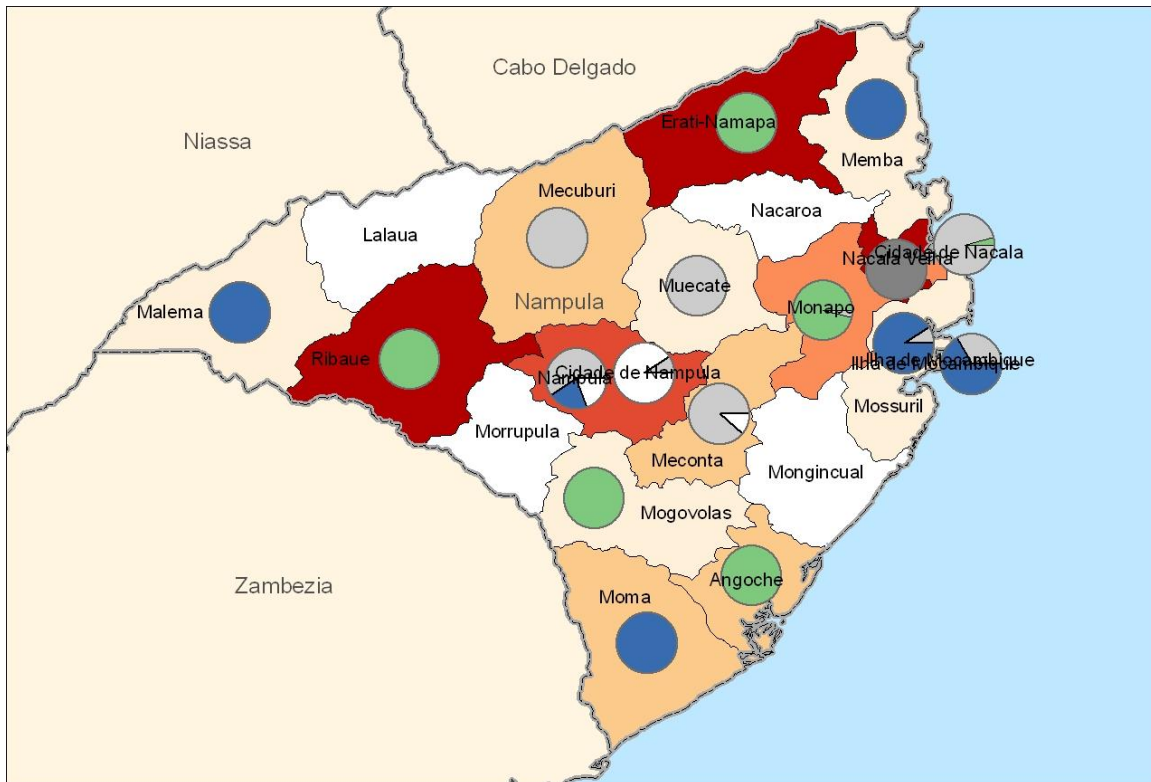


**Table 12. CPI-Authorized Investments in Nampula by Industry, 2005–2009**

District	2005		2006		2007		2008		2009		2005-2009	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
Transport & Communication	218	\$8,900,000	..	..	..	..	..	..	..	..	218	\$8,900,000
Agriculture & Fisheries	18	\$349,745	..	..	..	..	23	\$175,000	..	..	41	\$524,745
Agro-processing	10	\$762,508	723	\$6,032,000	34	\$340,000	5,527	\$72,691,368	7,520	\$2,209,130,000	13,814	\$2,288,955,876
Construction	..	..	23	\$610,000	10	\$230,540	93	\$12,027,957	14	\$1,415,094	140	\$14,283,592
Industry	720	\$10,307,919	290	\$6,335,051	1,565	\$52,689,586	210	\$2,491,792	362	\$67,024,076	3,147	\$138,848,424
Mineral Resources	..	..	..	..	470	\$5,000,000,000	..	..	..	..	470	\$5,000,000,000
Services	..	..	..	..	..	..	..	..	0	\$490,909	0	\$490,909
Tourism & Hotels	38	\$3,158,053	12	\$500,000	66	\$7,500,000	..	..	226	\$27,197,318	342	\$38,355,371
Others	125	\$13,920,000	35	\$560,000	15	\$250,000	10	\$100,000	..	..	185	\$14,830,000
<b>TOTAL</b>	<b>1,129</b>	<b>37,398,226</b>	<b>1,083</b>	<b>14,037,051</b>	<b>2,160</b>	<b>5,061,010,126</b>	<b>5,863</b>	<b>87,486,117</b>	<b>8,122</b>	<b>2,305,257,398</b>	<b>18,357</b>	<b>7,505,188,918</b>

Source: Mozambican Authorities (CPI 2005-2009).

**Figure 8. Nampula Province: CPI-Authorized Investments in 2005-2009, by District and Sector**



Source: Mozambican Authorities (CPI 2005–2009).

### 1. Megaprojects in Nampula

Mozambican exports of goods amounted to US\$2,653 million in 2008, while imports were US\$3,643 million—both about triple their 2001 levels. Megaprojects accounted for 70 percent of exports and 20 percent of imports of goods in 2008; net exports by megaprojects amounted to US\$1.9 billion in 2008, up from US\$210 million in 2001.<sup>52</sup> With Moma Sands, an investment to mine titanium bearing heavy sands in the Moma district currently in operation and the other two megaprojects in the pipeline, Nampula stands to become the region with greatest value—US\$8 billion—invested in projects of this nature.

*Ayr-Petro Nacala*, approved in 2007, is the biggest of the three megaprojects, with an expected cost of about US\$5 billion, and an initial investment of US\$50 million. The largest investor, Ayr Logistics is a US-registered company that provides a broad spectrum of logistics support throughout the world. The

other investors are South African and Mozambican nationals that set up a Mozambique-registered branch of Ayr (Ayr Logistica Limitada) in November 2006.<sup>53</sup> The refinery, covering an area of 838 ha, is expected to produce over 300,000 barrels of fuel a day and employ 450 Mozambican workers. While the construction of the refinery was supposed to begin in the first half of 2008, as well as a training program involving 145 foreign technical staff,<sup>54</sup> the project was delayed because of financing difficulties experienced by the Mozambican partners after the financial crisis. To move the project forward, new arrangements for a loan for the local partners have been finalized, and the project is now proceeding with an environmental assessment and other preparatory work by the South African company *Group 5*. The project is expected to start drilling by the end of 2011.

*Lurio Green Resources*, approved in 2009 is a proposed investment by the Norwegian company of the same name. The company intends to plant eucalyptus trees for industrial purposes across large swathes in Nampula. According to Government officials, US\$209 million will be spent on the eucalyptus plantation itself, and another US\$2 billion on sawmills, a pulp and paper mill, and other industrial infrastructure, including for electricity generation. Part of the land is also expected to be used for food production. Lurio Green Resources initially asked for a concession of 210,000 ha but was granted only 126,000 ha in several blocks in the Mecuburi, Ribaue, and Nampula-Rapale districts. The project is expected to create 7,500 jobs, and the company has promised to invest US\$30 million in building schools, health centers, and other infrastructure for communities in the project area.<sup>55</sup>

*Moma Sands*, approved in 2004, is the biggest operational project in Nampula. The operator is the Irish company Kenmare Resources. In 2008, the Kenmare dredge mine produced 254,000 tons of the ores ilmenite, rutile, and zircon.<sup>56</sup> The investment is expected to cost a total of US\$450 million and produce 612,000 tons of ilmenite, 24,000 tons of zircon, and 12,500 tons of rutile per year. Financing for the mine is coming from several sources, including the African Development Bank, the Development Bank of South Africa, KfW (German Development Bank), and the European Investment Bank. Its export revenues should be in the range of US\$75 million per year, totaling US\$1.5 billion over its lifetime. The mine could contribute up to 2.4 percent per year to Mozambique's GDP and employ 1,200 people directly, with an estimated 1,500 more jobs created in ancillary and support services.<sup>57</sup>

## 2. Nacala Special Economic Zone

In 2008, the Government of Mozambique passed a decree establishing the Nacala Special Economic Zone.<sup>58</sup> National and foreign investment in the zone—mainly in the agriculture, biofuel, services, and tourism sectors—reportedly totaled US\$80 million in the past year.<sup>59</sup> The zone covers an area of 1,300 km<sup>2</sup> and a population of 0.3 million in the Nacala-Velha and port districts.<sup>60</sup>

To date, the companies that operate in the Special Economic Zone include Cimentos de Nacala (CINAC), Simba Steel, and Damodar Ferro, with investments in mining and iron ore smelting; AVIAM, with investments in agriculture; Nacala Fishing Charters; and tourism operators. The Government also aims to attract logistics companies to the zone; however, this—and the zone's ultimate success—will depend on the implementation of upgrades at Nacala Port and in the rail lines running between Nacala and Malawi, as well as the development of the Nacala Airport. The management of the zone and related incentives will require strong institutions and a sound regulatory framework.

### 3. Priority Sectors

#### **Agriculture and Agribusiness**

Nampula's agricultural and agribusiness sectors show an array of donor and private sector activity. Major donors investing in commercial and rural agricultural development in the region include USAID, the Millennium Challenge Corporation (MCC), and the World Bank.

USAID and the MCC are supporting both commercial and rural agriculture through various programs, with a total investment of US\$127 million. USAID is supporting the development of a more productive, market-oriented, and higher value-added agricultural sector, and focusing its interventions in the Beira and Nacala trade and transport corridors for maximum impact through access to regional and international markets. The program is adopting a value chain approach, seeking to build linkages and business partnerships between large US and other corporate investors and local producers. It will be oriented towards the production of key staple foods (maize, cassava, sweet potato, legumes, rice, and poultry) and export crops (fruits, cashew, coconuts, and oilseeds).<sup>61</sup>

USAID interventions are expected to (a) support the development of infrastructure (roads, water for irrigation and drinking, and market facilities); (b) introduce modern production, processing, packaging, storage, and marketing technologies through partnerships with US food industry and agricultural companies; (c) help foster strategic partnerships with international agricultural research centers; (d) provide market intelligence on product quality standards, and link producers to markets; and (e) provide access to affordable finance for farmer associations.<sup>62</sup>

MCC is focusing on the outbreaks of Coconut Lethal Yellowing Disease (CLYD) through the Farmer Income Support Project in Nampula. Coconuts and coconut products form an important part of the economy in northern Mozambique, and CLYD threatens the industry and the livelihoods of more than 1.7 million people living in these provinces. The project aims to improve the productivity of coconut farmers and encourage diversification into other cash crops. The project also invests in technical support to introduce better practices aimed at increasing crop yields.<sup>63</sup> MCC is also supporting the Millennium Villages and creation of a (CISCO) Academy in Nampula.

The Government of Brazil, jointly with the JICA, is also looking to support agricultural development in Nampula along the Nacala Corridor. The two governments recently signed a protocol and are now doing preparatory surveys. These plans, however, are at an early stage, and the project is not expected to be up and running for 15 years.

In addition to donor interest in rural and commercial agriculture in the region, there has also been a significant amount of private sector investment. Chiquita Brands is investing US\$55 million in Nampula and developing a specialized training center in the Nacala Corridor. Matanuska Ltd, a special purpose project corporation, is also investing in banana production in Nampula, with technical input from Chiquita, which will export the bananas under its brand name to international markets.<sup>64</sup>

Matanuska is investing in land rights and water rights, a new dam and irrigation system to support its rehabilitated plantation, infrastructure to support its new banana plantation, local road and power

infrastructure, and a cold chain between a rehabilitated warehouse in the Port of Nacala and a new packing house within its 3,000 ha plantation. The World Bank is supporting this development by providing IDA financing under the recently approved Competitiveness and Private Sector Development Project for the establishment of a private sector-led Tropical Fruits Training Center, which will provide short-course, intensive training on commercial fruit operations and management for prospective supervisors and junior managers. The center will be located across from the Matanuska investment and will focus initially on bananas.

Nampula is also a major source of nuts and cashews. More than 85 percent of the country's cashew trees are in the province. The nut industry includes 11 principal and 12 smaller processors. It is highly concentrated in the Nacala Corridor in Inhambane and Gaza, where essential competencies and service support are readily available. Miranda Caju, a processor based in the corridor, has emerged as the cluster leader.<sup>65</sup>

Finally, the province is attracting investments in emerging sectors such as biofuels. The Italian company AVIA is investing US\$20.1 million in jatropha production on more than 10,000 ha of land in Nacala-a-Velha, with a view to expanding into 35,000 ha, and with 5,000 hectares in out-grower schemes. The company now employs 160 people and has nurseries on 50 ha of land. Ultimately, it is expected to employ 1,000–2,000, based on its strategy for mechanization, and produce 25–30 thousand tons of oil.

In support of fisheries development nationwide, there has also been progress with reforms at the central level and in institutional development. Fish inspection laboratories in Angoche and Nacala have been constructed, and a patrol boat has been hired to improve coastal inspection.

## **Tourism**

USAID is supporting tourism development in Nampula through support to sector planning, related policy reform, and promotion of investments in “destination” tourism. It is focusing on the Northern Arc (Cabo Delgado, Nampula, and Niassa provinces). The agency estimates that 141,000 direct and indirect tourism-related jobs will be created. Public-private partnerships will support the conservation of key natural areas (Gorongosa National Park, Limpopo National Park, Lake Niassa, and Pemba Bay) along with eco-tourism development. Access to affordable finance and business development services will be provided to tourism-linked small and medium enterprises, such as handicrafts, tour operators, and tourist activities (boating, fishing, diving, and wildlife observation).

On the private sector side, CPI authorized US\$38 million worth of investments in the tourism sector between 2005 and 2009, most for less than US\$1 million. Seven proposals, with expected investments reaching US\$27 million, were approved in 2009 alone (Table 11).

## **4. Infrastructure**

### **Railways and Nacala Port**

Corredor de Desenvolvimento do Norte (CDN), a Mozambican private company incorporated by two shareholders—Caminhos de Ferro de Mocambique (CFM) and Sociedade de Desenvolvimento do Corredor de Nacala (SDCN)—holds the rail and port concessions in Nampula. The Government aspires to

transform the country into a regional trans-shipment route, and is considering investing, with private parties, up to US\$1.6 billion to upgrade its port, rail, and roads infrastructure in the Nacala Development Corridor over the next five years. In addition, around US\$500 million will reportedly be invested in more than 200 km of new railway linking the Sena line to the Nacala Corridor via Malawi.<sup>66</sup> As the route is expected to serve Malawi by transporting fertilizer, grain, sugar and cement, its Government and the private sector have also been invited to participate in the corridor's development.<sup>67</sup>

Further developments are expected to include a terminal for minerals and a dry dock to repair large ships at Nacala Port. The Government of Japan is providing technical assistance for rehabilitation of the port, and is supporting a preparatory survey for the upgrade. According to experts, the Nacala Port's current holding capacity is around 300,000 tons; however, this could be significantly scaled up with additional investments to develop the areas around the port.

## **Roads**

The Government's five-year master plan for roads, known as the Integrated Road Sector Program (PRISE), is a sector-wide initiative to develop the national road network. PRISE's first three-year rolling investment program (covering 2007–2009) was budgeted at more than US\$1 billion, and included (a) building, rehabilitation, and maintenance of roads and bridges; (b) development of pilot projects to test low-cost materials; and (c) implementation of a road safety initiative. Various donors, including the World Bank, African Development Bank, MCC, DFID, the EU, and JICA are supporting road development in Mozambique, with a focus on Nampula.

The African Development Bank is providing a US\$160 million loan to tar the road between Cuamba and the city of Nampula, which will ease access from landlocked Niassa to the port. The total cost of the road is US\$280 million, with the rest of the financing expected to come from JICA, South Korean Ex Bank, and the Mozambican Government.<sup>68</sup> The Government of Japan is also providing technical assistance for the road improvement plan in Nacala Development Corridor (N13: Cuamba-Mandimba-Lichinga).

In addition, MCC is investing US\$176 million in PRISE to (a) improve access to markets, resources, and services; (b) reduce transport costs for the private sector in order to promote investment and help commercial traffic; (c) expand connectivity across the northern region and down toward the southern half of the country; and (d) increase public transport access in order to help individuals take advantage of job and other economic opportunities.

Specifically, MCC funding will rehabilitate 491 km of key segments of National Route 1, which forms the backbone of the country's transportation network in three provinces. The road segments will include Rio Lurio–Metoro in Cabo Delgado (74 km); Namialo–Rio Lurio (148 km) and Nampula–Rio Ligonha (102 km) in Nampula; and Nicoadala–Chimuara (167 km) in Zambézia.

## **Nacala Airport**

Over the past decade local and international private investors have become interested in the development of improved airport facilities in the north of the country, especially in the development of Nacala military airfield, to serve the resort zones of the Indian Ocean coastal area from Nacala to Pemba. With financing

from BNP Paribas, commercialization of the military base is now expected to take place by 2011. The estimated cost of the undertaking is US\$80–100 million.<sup>69</sup> Nacala airfield is currently managed by the Mozambique Air Force and provides limited non-commercial air service. However, it is well-located and equipped with a 2,500 m runway.<sup>70</sup> If converted to civil operation, it would provide direct air transport for Nacala and significantly boost tourism in the region.

## **Water and Sanitation**

Mozambique has one of the lowest levels of per capita water consumption in the world. With an average of less than 10 liters per day, the country is far below global benchmarks. Girls and women are responsible for collecting most of the water at the household level, and spend hours fetching water. This leaves little time for family care, education, or production.

Multiple donors are investing under a single project—the Water Supply and Sanitation Project—to help improve water access and sanitation in the country. The MCC-supported project preparation work culminated in mid-2007 in a multi-donor funding package of US\$240 million that included US\$204 million from MCC, US\$15 million from the World Bank/International Development Association (IDA), US\$15 million from the Africa Catalytic Growth Fund (ACGF), and US\$6 million from the Global Partnership on Output-based Aid (GPOB).

The Water Supply and Sanitation Project aims to improve access to safe, reliable water supply and sanitation services, thereby increasing productivity and reducing water-borne diseases—a main cause of death in children under five. The project involves (a) water supply and sanitation services in three large cities (Quelimane, Nampula, and Pemba) and three mid-sized towns (Gurué, Mocuba, and Nacala) in the provinces of Zambézia, Nampula, and Cabo Delgado; (b) water supply services in two small towns (Monapo and Montepuez) and 600 rural villages in the provinces of Nampula and Cabo Delgado; and (c) capacity building of local institutions and policy development.

In addition, the Mozambique Water Supply Investment and Assets Fund (FIPAG) is preparing a Water Sector Services and Institutional Support (WASIS) project, to be implemented under the ongoing Second National Water Development Project (NWDP 11), with financing through an ACGF grant and an IDA credit over approximately five years. The interventions are expected to (a) increase water supply coverage in the four cities of Beira, Nampula, Quelimane, and Pemba; (b) provide capacity building and institutional support to fill gaps in sector strategy for smaller cities and towns; and (c) support efforts to establish a sector-wide approach (SWAP) for rural water supply.

The US\$15 million WASIS project will also support the national water directorate, DNA) and the creation of the proposed Urban Water Supply and Sanitation Office (GAPASU), based on the delegated management model. GAPASU will manage assets, plan and oversee the execution of investments, and engage third-party operators in smaller cities and towns that cannot meet the FIPAG criteria for financial viability. GAPASU will be linked with the investment funding secured through the proposed Millennium Challenge Corporation (MCC) project and will be piloted in Zambezia, Cabo Delgado, Niassa, and Nampula, with rollout to the rest of the country in the long term.

## **Energy**

An energy sector support project is being designed to finance the extension and intensification of the medium and low-voltage grid in peri-urban areas in Nampula and Tete provinces, to provide service to 25,000 new customers. A total of US\$98 million will be invested, of which US\$80 million will be an IDA credit. The sector is currently supported by the African Development Bank and NEPAD, through operations to extend grids in 19 rural centers and supply about 7,000 consumers in Gaza, Imhambane, Tete, and Nampula; and to electrify urban and peri-urban areas in Maputo and Nampula provinces.

### **Institutional Capacity Building**

The Second National Decentralized Planning and Finance Program (or DPFP II) is piloting interventions in Nampula to improve local service delivery, catalyze local economic development, and strengthen good governance and citizen oversight at the provincial level. The program is financed by a US\$46 million multi-donor technical assistance loan, US\$30 million of which is from IDA. The other donors are Common Fund Partners, German Cooperation, and UNDP. The program aims specifically to (a) improve national support systems; (b) strengthen participatory planning and budgeting; (c) enhance management and implementation capacity; (d) strengthen oversight and accountability; (e) improve knowledge management; and (f) improve program management and coordination.

The province is also being supported by a Joint Municipal Development Program in the north, financed by the Swiss Agency for Development and Cooperation (SDC), the Danish Cooperation Agency (DANIDA), and the Austrian Development Cooperation (ADC). This program aims to reduce poverty by strengthening the autonomy of municipalities, expand coverage, and improve quality in the provision of services.

## **D. OPPORTUNITIES**

Nampula possesses rich natural resources, a strategic geographic location, and a large supply of low-skill human capital, which provide a good basis for scaling up trade of both goods and services in the agribusiness, mineral processing, tourism, and transport sectors.

Current investments are concentrated in mining, agribusiness, and agriculture. However, despite the relatively high value of these investments, as well as infrastructure developments in road and water, employment generation remains limited. This is partly due to the lack of skills in the province and partly to poor linkages between existing investments and the rest of the economy.

The province has an excellent opportunity to develop the agriculture and agribusiness sectors by focusing on processing activities, diversifying into new cash crops and horticulture, and improving the quality of agricultural activities through modernization and better irrigation techniques. Farmers in the province have good skills but are mostly engaged in subsistence farming using archaic methods. There are multiple venues—including the large-scale plantations of eucalyptus trees, jatropha production, and nut processing—where outgrower schemes could be developed as major sources of employment.

Both international investors and donors have shown an interest in developing Nampula's agricultural and agribusiness potential. Total production in Nampula grew by an average of 11.8 percent a year over the



last four years, according to results released by the provincial government in May 2009. The most outstanding growth—17.9 percent a year—was in agriculture, livestock, and forestry,<sup>71</sup> indicating that Nampula could become a major food producer and agricultural processor. Food crops and livestock, cash crops such as oilseeds, biofuels, tropical fruits, and plantation forests have considerable potential for expansion and increased productivity. The provincial government has identified the following districts as having the right agro-ecological potential to grow:

- Corn—Murrupula, Ribaue, Lalaua, Monapo and Malema
- Peanuts —Mogovolas, Murrupula, Nacarôa, and Muecate Meconta
- Rice —Angoche, Moma and Murrupula;
- Cassava—Malema, Erato, Ribaue, Murrupula, Nampula and Mecuburi
- Vegetables—Malema, Ribaue
- Caju—Mogovolas, Angoche, Moma and Mogincual
- Cotton—Nacarôa, Meconta and Monapo;
- Madeira—Nampula - Rapale, and Mecuburi Muecate.

The recent growth in these sectors, combined with investor interest, the reported skills of Nampula's farmers, and the agro-ecological map of the province, all point to the excellent but still untapped potential for competitive agriculture and agribusiness in Nampula (Figure 9). The importance of these sectors is reflected in their prominence in both national and provincial strategies. Authorities have been developing plans and programs to increase agricultural production and productivity, with a view to becoming competitive in the international markets.



In Nampula, the sector interventions are coordinated through the above-mentioned National Agricultural Extension (PRONEA) and Rural Markets Promotion (PROMER) programs. There are 10 local economic development branches, as well as 95 microfinance institutions and nearly 5,000 associations supporting rural agriculture in the country.<sup>74</sup>

Nampula could also benefit from the Government's support for industrial development. Its strategy to assist the development and revitalization of industries, adopted in 2008, focuses on three pillars:

- Development of industrial infrastructure valued at US\$1.2 million within the industrial parks of Beluluane, Dondo, and the Nacala Special Economic Zone
- Development of agrarian land within rural areas
- Exemption of enterprises in industrial-free zones from personal income tax during the first ten years of operations, and a reduction of 50 percent for subsequent years.<sup>75</sup>

The Government's industrial policy, covering the period 2007–11, focuses on food processing and agro-industries and identifies the following products as key manufacturing priorities: salt, sugar, copra, processed fish, processed fruit, and cashew nuts. Lower priority products include milling products, sisal, tea, bakery products, pasta, processed meat, tobacco, animal feed, dairy products, and liqueurs. The policy also emphasizes textiles and clothing and metallurgy.<sup>76</sup>

These programs can support Nampula's efforts to both scale up its agribusiness production and expand and diversify its markets. Traditionally, the horticulture industry has targeted the domestic market, but there may be opportunities to expand sales to South Africa and other international markets. The cashew processing industry, in particular, has the potential to sustain further growth given the province's comparative advantage, and the concentrated processing activity in the region.

Nampula's natural endowments also provide it with a major comparative advantage in the tourism sector. The province has excellent potential to develop high-quality, natural resource-based tourism due to its exceptional marine ecology, pristine beaches, and other unique terrestrial and lake ecosystems. Tourism potential in the province is supported by a rich historical and cultural heritage. UNESCO has identified 50 historical sites in the province, and cave paintings have been found in Ribaue Malema.<sup>77</sup>

Tourism carries good prospects for job creation and linkages with the local economy. However, the sector is still largely underdeveloped throughout Mozambique and does not attract private sector interest. Tourism across the country accounts for only 1.8 percent of GDP, compared to 9.7 percent of GDP in Tanzania, 7.6 percent in South Africa, and 32 percent in Mauritius.<sup>78</sup>

Nampula's third important natural endowment is its mineral resources. Although mining industries do not have the same potential to generate jobs as agriculture/agribusiness and tourism, they have the greatest potential to generate revenues, which can in turn be invested in infrastructure and human development. Other national-level initiatives, such as the pending Public Private Partnership Law, would help Nampula to better manage and maximize the benefits of mega projects, which are expected to have a combined impact of 34 percent on GDP growth.<sup>79</sup> The draft law, submitted by the Ministry of Finance to the

Council of Ministers at end May 2010, will also be applicable to existing megaprojects and concessions, including those in power generation.

These important initiatives could help provincial authorities to ensure that mega-investments are leveraged to support development programs and build linkages with the local economy. Mega-investments could also directly support skills improvement through related technical schools. The ongoing Ayr-Petro Nacala Project, for example, plans to invest in the training of its local staff through an ancillary training school. Other such initiatives could be developed and scaled up.

Finally, due to its geographically strategic location and deep water port, Nampula has the potential to become an important gateway for landlocked countries, as well as for landlocked provinces in South Africa. It also has the potential to develop a competitive logistics sector around the Nacala Port and along the Nacala Corridor. Mozambique's importance as a gateway is evident in the fact that trade and services, of which transport is the major component, accounts for more than 41 percent of GDP.<sup>80</sup> However, the Mozambican segment of the Nacala Development Corridor is greatly underdeveloped and performs far below its potential. There is limited formal trade among the three countries in the corridor—Zambia, Malawi, and Mozambique—although the high level of informal trade, particularly in food items and manufactured goods such as spare parts and bicycles, indicates a potential for increased intra-regional trade.

## **E. CHALLENGES AND CONSTRAINTS**

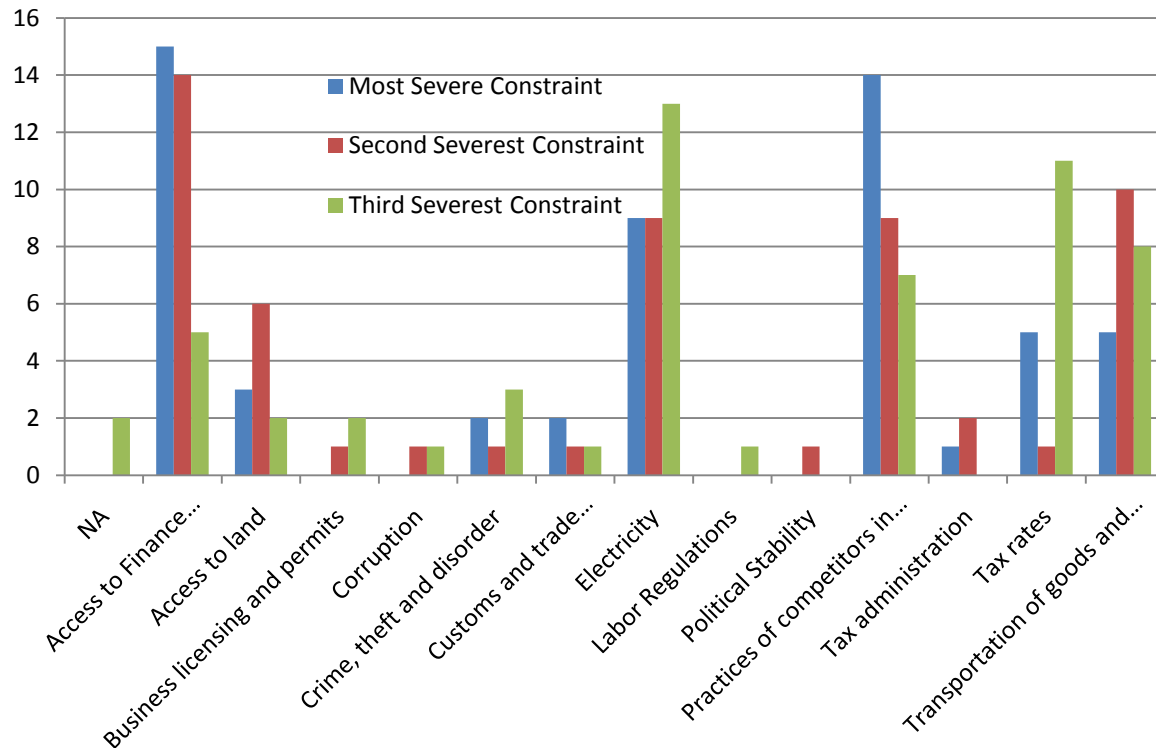
Nampula's potential for private sector development has been hampered by a number of severe constraints to its economic competitiveness. The results of the World Bank's 2009 Investment Climate Assessment (ICA) for Mozambique show that sales and value added per worker, as well as the total productivity factor, are low throughout the country compared to South Africa, Indonesia, Angola, Malawi, and Zambia, despite relatively lower wages. Most firms consider competition from the informal sector and access to finance as the two top constraints to doing business in the country.<sup>81</sup>

The 2007 Enterprise Survey, on which the ICA is based, included 56 firms from Nampula, and reveals a similar story once the province is studied separately. Most Nampula firms cite access to finance and competition from the informal sector as the severest and the second severest constraints to business growth in the province. Other constraints include supply and cost of electricity, tax rates, and access to land (Figure 10). In addition, firms surveyed in Nampula said they face constraints with business licensing and permits, corruption, crime, theft and disorder, customs and trade regulations, labor regulations, political instability, and tax administration.<sup>82</sup>

An independent survey by the KPMG Group (KMPG 2010) on the confidence of companies in the country had similar findings. According to this survey, Nampula Province had the highest business confidence index for 2009 based on quality of infrastructure and services, as well as legal factors.<sup>83</sup> Ironically, however, the same firms expressed the least confidence in prospects for business environment improvements—suggesting that while existing geographic, infrastructural and natural endowments help Nampula to attract business interest and boost its potential, the businesses feel there is weak commitment

to business environment reform and deeply engrained constraints to doing business in the province. These include inflation, export barriers, restrictions on employment of expatriates, illegal imports, and the internal political situation.<sup>84</sup>

**Figure 10: The Top Three Severest Constraints to Business Growth in Nampula, 2008**



Source: Mozambique Enterprise Survey, 2008.

### **Box 5. Constraints to Economic Growth in Nampula Emphasized by Provincial Authorities**

The Provincial Government of Nampula has identified the following constraints to economic growth and productivity:

- Underdeveloped and degraded infrastructure (especially poor roads, bridges, railway lines, port, and dams for irrigation)
- Use of rudimentary technology and poor supply of inputs for small farmers, constraining both food supplies and potential to scale-up and export
- Closures of industrial and other production sites—including fisheries in Island Mozambique and Moma; a Pepsi Cola bottling plant; a dairy in the city of Nampula; nut, cashew and rice processors; and other agricultural units
- Poor management of natural resources and weak infrastructure, which hinder the development of tourism
- Poor quality and high cost of electricity
- Weak entrepreneurial response and lack of access to finance
- Low levels of labor productivity caused by poor skills and lack of educational attainment (fueled by poor coverage of the school network, lack of available teachers, and lack of vocational and technical training centers)
- Poor management of water supplies

Constraints to achieving higher economic growth and social development were identified as (a) low effectiveness in public services; (b) poor articulation and circulation of information; (c) excessive number of procedures for starting a business; and (d) limited skills in and use of technology at grassroots levels.

Findings from interviews conducted in December 2009 also show similar results. Investors, business representatives, and public officials in Nampula cited the following constraints to private sector growth:

- a) **Lack of labor skills and poor labor productivity.** Labor productivity in Nampula is adversely affected by the high labor turnover, lack of labor motivation, and high rates of HIV/AIDS.
- b) **Poor access to water.** Firms reported having access to water only 5-6 hours per day.
- c) **Port is constrained by management problems.** Possible governance challenges result in high costs, delays, and poor access to services at the port.
- d) **Power supply is inadequate and supported by poor infrastructure.** Firms face regular power cuts.
- e) **Soil erosion, both coastal and inland, hurts agricultural productivity and infrastructure.** A program financed by the Finnish government focused on training technical staff over the past seven years; however, there is a lack of political commitment to address this problem.
- f) **Lack of coordination between provincial and central authorities in rules and regulations governing private sector activity, especially in the Nacala Special Economic Zone.** Investors in the zone are given tax incentives, exemption from import duties, as well as favorable rates for electricity.

However, these are not coordinated among various public agencies, and some investors operating in the Nacala zone report not being recognized by the Energy Department of Mozambique (EDM), and faces burdensome and unclear administrative procedures to obtain exemptions for import duties.

- g) **Burdensome administrative procedures, rent seeking behavior, and weak legal underpinnings.** Investors operating in the Nacala Special Economic Zone must register with both GAZEDA and the CPI, which could take more than a year, because central and provincial procedures are not coordinated, various steps are repeated, and investors need to shuttle back and forth between Maputo and Nampula to meet all the administrative requirements to be operational. In addition, getting clearances from customs in order to import tax and duty free can take up to four months.
- h) **Licensing from the Ministry of Commerce takes an average of three months.** Licenses for small companies are issued at the municipal level; however, bigger investors report having to work with both the provincial and central governments to obtain their licenses.

There are also sector-specific constraints to business growth and competitiveness in the province, as well as cross-cutting business environment challenges. In the agriculture sector, despite good potential and improving performance, less than 2 percent of the 4.5 million ha of land available for agriculture in Nampula is irrigated.<sup>85</sup> Agricultural productivity remains low; fewer than 10 percent of farmers use improved seeds, 80 percent of small-scale farmers are not market oriented, products often do not meet market requirements for quality and food safety, and most farmers lack access to credit, modern technologies, and markets.<sup>86</sup> In commercial agriculture, Mozambican companies are particularly attractive partners for South African investors. However, the process of identifying suitable land and water rights for development remains a significant obstacle to investing in agribusiness in Nampula.

In the nut sector, there is room for growth and cluster development, as the production and limited processing capacity is already concentrated in Nampula. However, declining volumes of high-quality nuts, seasonality of the business, and limited sources of third-party financing hamper further growth of the sector. Poor quality sandy soils and unreliable rainfall further diminish the productivity and nut quality of mature cashew trees in the Nacala Corridor.<sup>87</sup>

In the agribusiness and tourism sectors, the most severe constraints are poor infrastructure and unreliable power and water supply, and transportation costs. Nampula's large number of power failures has direct negative impacts on production and competitiveness, the costs of maintaining machinery, and ultimately on trade and investment.<sup>88</sup> For water resources, the biggest challenge is to utilize this great resource potential far more effectively, and especially to increase access to potable water, as well as water for irrigated agriculture.<sup>89</sup> The underdevelopment of the tourism sector is also due mainly to poor infrastructure, as well as to high input costs, low productivity of current tourism businesses, and sub-optimal use of resources and other attractions—all of which result in a lack of large international investments capable of driving high-value markets and building local supply chains.<sup>90</sup>

In response to these challenges, and in accordance with the Provincial Development Plan, provincial authorities have established a series of public agencies to promote and manage private sector activity in different segments of the economy. These include:

- Nampula Coordination Unit for Integrated Development (UCODIN), established to ensure coordinated and concerted action among the public, private, and international development actors; UCODIN serves as an umbrella agency in overseeing and managing the economic development of the region, as well as linking various public actors together;
- Confederation of Business Associations (CTA), which supports public-private dialogue on issues pertaining to private sector growth;
- Nacala Special Economic Zones Authority (GAZEDA), which promotes and manages investments in the Nacala Special Economic Zone, including its industrial zone;
- Center for Commercial Agriculture, which supports rural development, commercial agricultural development, and small farmers;
- IPEX, which supports export-oriented small and medium enterprises;
- CPI, the major body for investment promotion and authorization.

In addition, (CTA), a non-governmental business association, is an umbrella organization for agriculture (ACIANA), transport, tourism, and construction associations in Nampula. Despite the high level of support for private sector growth in the province, however, these organizations appear to be uncoordinated and supported by weak legal and institutional structures. They are also under-staffed and under-skilled, and have overlapping mandates that produce inefficiencies and redundancies. In addition, these agencies are backed by weak local authorities. For example, Nacala Municipal Authority has neither capacity to support the Special Economic Zone nor to facilitate GAZEDA.

## F. RECOMMENDATIONS

Nampula Province has excellent prospects for developing growth poles, for three critical reasons:

1. It captures close to half the proposed private investments in country. These are large-scale investments concentrated in the agribusiness and mining sectors with the potential for deep and broad linkages.
2. The province has programs and institutions on the ground, such as PROAB, that can be scaled up and leveraged, help maximize the impact of megaprojects, and support the Nacala Special Economic Zone.
3. There are many donor interventions in the region that, while significant, are scattered. The provincial government seeks to coordinate and seek synergies from the various programs, and a growth poles strategy would help support this objective.

Growth pole interventions for Nampula could focus on four major areas: (i) business environment; (ii) institutions and capacity building; (iii) infrastructure, regulation, and planning; and (iv) linkages.



## **1. Business Environment**

While the major issues for established firms are competition from the informal sector and access to finance, the main constraints for those looking to enter the market or develop their businesses are regulatory issues, including business licensing and tax administration, and the lack of coordination among the different public agencies. To maximize the effectiveness of existing interventions, as well as support entrepreneurship, nationwide business environment and regulatory reforms are essential. However, these need to be accompanied by provincial-level initiatives to rationalize and modernize procedures for business start-up and operations, as well as to make them more transparent.

## **2. Institutions and Capacity Building**

As shown, Nampula is blessed with an array of donor interventions, private sector interest, and a regional government that is aware of the importance of effective coordination and regulation of these activities. A plethora of action plans and agencies in the province support and govern the private sector, which shows a positive, proactive approach from the authorities. On the other hand, these efforts are not well coordinated, and their mandates often overlap. A growth pole approach in Nampula could bring the various agencies and strategies together under one well-coordinated and targeted program.

The province could rationalize the many different agencies that support similar activities, especially in terms of SME development and export promotion. The legal framework governing these agencies should be reformed and modernized, with a view to supporting a coordinated public system with distinct branches focusing on well-defined activities.

The establishment of UCODIN is a good step forward—but installing new agencies to overcome the redundancies may not by itself be an effective solution, since the existing agencies—including the Nacala Zone Authority and the Nacala Municipality—do not have the capacity to implement their programs or achieve their mandate. Technical assistance is required to build capacity at the local level, following a thorough review of these organizations, and their legal underpinnings.

Donor coordination is also an important priority, especially for Nampula. The MCC, World Bank, JICA, and other donors are all actively investing in infrastructure projects, agricultural development, and tourism. Effective coordination of existing and future interventions will go a long way toward maximizing the impact of the private investments, including their ability to produce spill-over activities. Private sector development in the region especially suffers from weak donor coordination. The European Commission suggests that this is due to the fact that “commitment to joint efforts by both the Government of Mozambique and donors has been limited.”<sup>91</sup> Institutions should also be supported and developed with a view to addressing this coordination problem. UCODIN, established with this mandate, should be empowered to achieve this goal.

## **3. Infrastructure, Regulation, and Planning**

Most donor interventions in the province support infrastructure development, yet the roads, bridges, railways, and port remain undeveloped. As emphasized in the Provincial Development Strategy, coordinated and strategic infrastructure development is critical to the region’s economic growth. The

committed interventions in the province are mostly focused on the road networks, which are a major development priority for the provincial government.<sup>92</sup>

Specific interventions under a growth pole approach could include:

- **Roads.** Roads in Nampula, despite significant investments, are still grossly underdeveloped. The government lacks adequate resources to implement its Roads Strategy. A growth pole in Nampula could invest in the rehabilitation of roads that connect small farmers to markets and large-scale agricultural developments.
- **Ports.** To maximize the impact of anticipated investments in Nacala Port, the growth pole strategy for Nampula should support improvements in port governance, as well as any required upgrades in the regulatory framework that governs its activity.
- **Water and sanitation.** Access to water is one of the major constraints to improved irrigation in the province. The growth pole strategy for Nampula should complement the investments made by the MCC and the World Bank in infrastructure and capacity building, especially in areas where outgrower schemes are possible.

#### 4. Linkages

One of the critical outcomes expected from a growth pole approach is to enable linkages between existing investments and local communities. A growth pole in Nampula could support linkages through (a) outgrower schemes, (b) skills development, and (c) support to SMEs.

- **Outgrower schemes.** Given the significant pipeline of investments in agribusiness and forestry development, there is high potential to scale up and develop outgrower activities in the province. Existing projects such as AVIAM's jatropha production, the megaproject eucalyptus and pine plantation, and the nut processing activities can be supported in integrating local farmer communities. Similar activities can be encouraged with new investors through centers supporting outgrower schemes under a growth pole strategy that could:
  - Train and support smallholder farmers connect to large-scale investments
  - Support access to markets through rural infrastructure development
  - Invest in irrigation technologies
  - Bring various province-based public agencies that support rural and commercial agriculture together under one roof.
- **Skills development.** Despite major investments, the total number of graduates from technical schools in Nampula compares poorly to most other provinces in Mozambique.<sup>93</sup> Qualified technical and low-skilled workers are rarely available. A recent study on the mega projects in Mozambique has identified Nampula as having good potential for technical schools. A growth pole initiative could support the establishment of strategic technical schools with a view to maximizing the local employment in the megaprojects.

- **SME development.** Support to SME development in ancillary industries, as well as the development of small manufacturers, tourism establishments, and medium-size exporters, is essential in Nampula. Well-designed matching grants programs, with components on business planning, supplier networks, market information, and product development could invigorate the small businesses in the province, and help them serve larger investments and expand their markets through improved productivity and capacity.

## Chapter 5 – Prospects for Growth Poles in the Beira Corridor (Sofala and Manica Provinces)

### A. INTRODUCTION

The Beira Corridor encompasses Sofala, Manica, and Tete provinces in the central region of Mozambique.<sup>94</sup> It links Zimbabwe, Zambia, Malawi, the Democratic Republic of Congo (DRC), and other countries to the Port of Beira. The corridor has great potential for commercial agriculture and for further growth once the port is operating at full capacity. This chapter examines the growth pole prospects for two of three provinces in the corridor—Sofala and Manica.

#### **Sofala Province**

Sofala Province is situated in the central region of Mozambique on the coast, north of Inhambane Province and south of the Province of Zambezia. It has a population of 1.6 million. The main economic activities are the production of shrimp and other seafood, sugar, cotton, and other agricultural products. Sofala contributes about 11 percent of Mozambique's GDP. Like the rest of the country, the province is struggling with poverty. Although the situation is improving, the unemployment rate, at 21.2 percent, is still higher than the national average of 18.7 percent.<sup>95</sup>

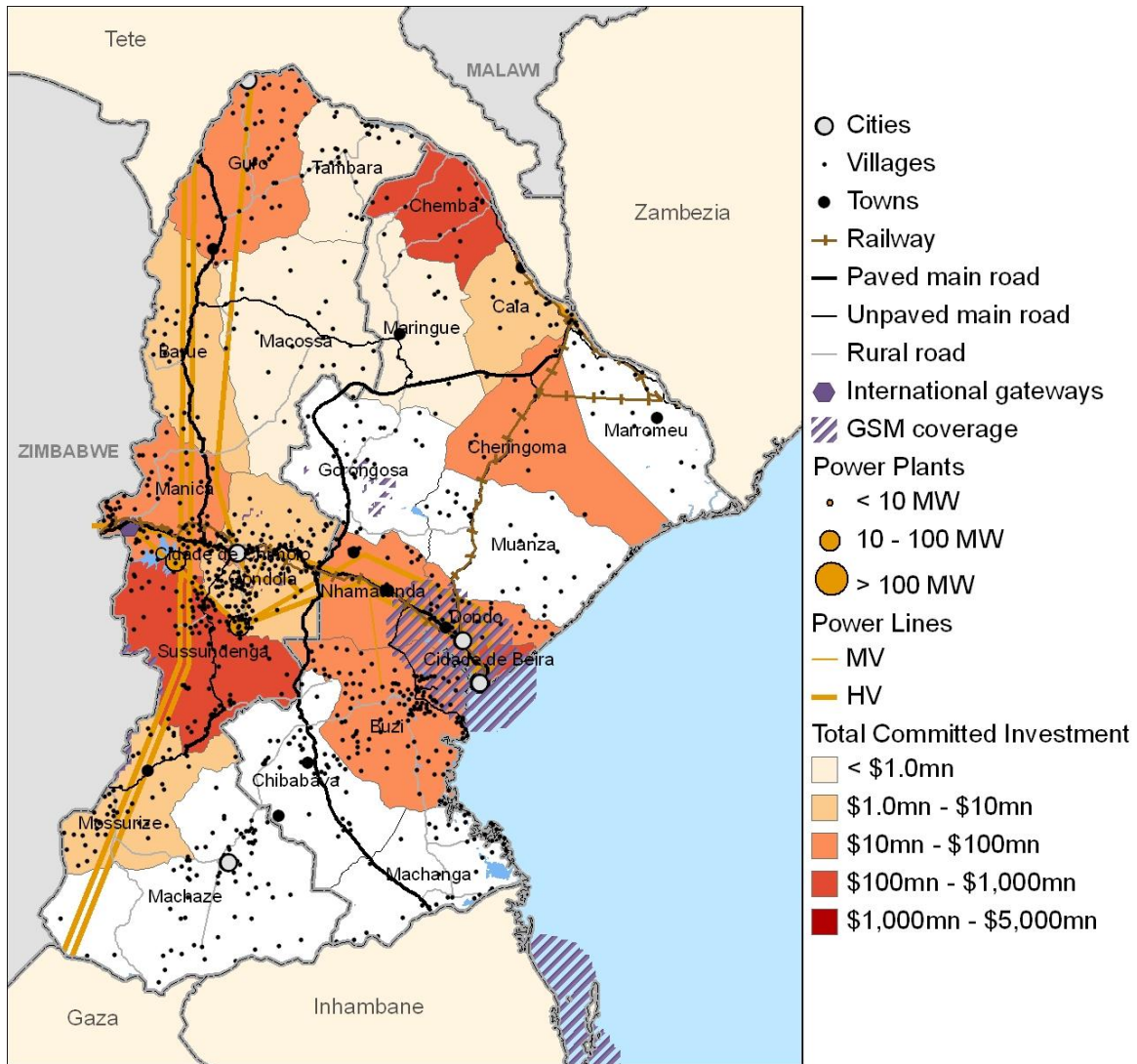
Beira, the provincial capital, is the second largest city in Mozambique with a population of 430,000.<sup>96</sup> The city is built on a plain below sea level and spreads along the coast from the Port of Beira to the lighthouse in the Macuti area. The port is the second largest in Mozambique and is regionally important; it is the gateway for landlocked Malawi, Zambia, and Zimbabwe, and is the closest port to the industrial city of Lubumbashi in DRC. It also connects the coal mining regions in Tete with the sea through the Beira Corridor.

According to poverty studies conducted in 1996–97 and in 2002–3, Sofala went from having the highest poverty headcount of any province to having the lowest in the space of six years.<sup>97</sup> In 2004, Sofala was the province with the highest HIV/AIDS rate at 25 percent, and in Beira City alone the infection rate is 34 percent. It has since been overtaken by Gaza and Maputo provinces.

#### **Manica Province**

Manica Province, known as the grain basket of Mozambique, lies nestled between Zimbabwe and Sofala Province in the central region of the country. The province has a population of about 1.4 million and an unemployment rate of 24 percent for persons over the age of fifteen, which is slightly higher than the national average. Chimoio is the provincial capital and the 5<sup>th</sup> largest city in Mozambique with a population of approximately 240,000; it is strategically located within the Beira Corridor around 95km from the border of Zimbabwe (there has been an influx of Zimbabweans since the crisis in Zimbabwe). The city is strategically located within the Beira Corridor and its airport has regular flights to Maputo and Beira. Historically, Chimoio has been an agricultural center, and the main economic activities and investments today are still in the agricultural sector.

**Figure 11. Sofala & Manica Provinces: Infrastructure Assets and CPI-Authorized Investments**



## B. PROVINCIAL STRATEGY AND PRIORITIES FOR DEVELOPMENT

The recently launched Strategic Plan for the Municipal Development of Beira City (*Plano Estratégico de Desenvolvimento Municipal da Cidade da Beira*, or PECB)—the first since 1999—offers some insights into the development challenges facing both Sofala and Manica. In addition to improving the quality and provision of municipal services through interdepartmental coordination and staff training, the plan’s main pillars are:

- **Environmental improvement**, including measures to combat coastal erosion and a strategy for Sustainable domestic energy use.

- **Economic activities and employment generation**, through prioritized activities to attract large and small investment in the agribusiness, tourism, and service sectors; and by improving the system for awarding land leases.
- **Public health and welfare**, including extension and maintenance of the water and sanitation network; rehabilitation and construction of bath houses in each barrio; promotion of gender equity; treatment for HIV/AIDS; and construction of new schools.
- **Upgrading of urban infrastructure**, including expansion and maintenance of the road network; zoning and infrastructure planning; expansion of telecommunications; and dredging of the port.

The new Municipal Strategic Plan addresses the significant changes that Beira has undergone since 1999, and it attempts to juggle both the short-term needs for water, sanitation, schools, and health with long-term issues such as climate change.

### C. CURRENT AND PLANNED INVESTMENTS IN THE BEIRA CORRIDOR

The entire Beira Corridor has shown high potential as an agricultural production zone, in particular for maize, sorghum, millets, wheat, rice, oil seeds, legumes, fruits, nuts, and livestock. The corridor contains some of the country's most productive land, including the grain basket surrounding Chimoio.<sup>98</sup> The renewed interest in the Beira Corridor is being driven in part by large-scale anchor investments in the agriculture sector, particularly sugar and cotton; and in part by investments in coal.<sup>99</sup>

Until 2004, Sofala had for many years attracted the second highest level of FDI in Mozambique,<sup>100</sup> with most investments going to infrastructure projects such as expansion of Beira port and rehabilitation of the Sena rail line. Tete Province overtook Sofala, with its massive coal mine investments, in 2006, but Sofala continues to receive substantial investment in agriculture, agribusiness, and industry,<sup>101</sup> with projects totaling almost US\$700 million between 2005 and 2009. Manica is also becoming an important destination for investments in agriculture and agribusiness, with CPI approving US\$377 million worth of investments during that period, the largest of which was a biofuel project for US\$300 million (Tables 13 and 14 for data on authorized investments in Sofala and Manica).

The fact that Beira Corridor is one of Southern Africa's main transport routes and also has farmland with proven agricultural potential gives it good potential as an agricultural growth corridor. To develop this potential, the governments of Mozambique and Norway, along with private investors and donors such as CEPAGR, Alliance, Yara, and others, are supporting an initiative known as the *Beira Agricultural Growth Corridor (BAGC)*. The concept note<sup>102</sup> puts forth the vision of stimulating a major revival of agriculture in central Mozambique and the wider Southern Africa region. It aims, in particular, to develop a detailed investment blueprint for the Beira Corridor; establish a partnership of all stakeholders with an interest in promoting commercial agriculture in the corridor; and set up a Beira Development Company (Beira DevCo) with a mandate to develop and finance commercially viable agriculture project that benefit local communities.

The BAGC initiative is largely private sector driven, and its timeframe is unclear. The Government of Mozambique is providing a small amount of funding in the initial phase to establish a secretariat, BAGC

has already identified a number of constraints to commercial farming in the region—inadequate infrastructure, lack of access to long-term financing, limited opportunities for value-addition through storage or processing. The initiative’s key objectives are to:

- Ensure that public and private sector investments along the agriculture value chain are properly coordinated;
- Leverage existing anchor investments (e.g., mining sector, railways, and port) to benefit agriculture;
- Develop new infrastructure and agriculture projects as commercially viable businesses.

**Table 13. CPI-Authorized Investments in Sofala and Manica, by District, 2005-2009**

District	2005		2006		2007		2008		2009		2005-2009	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
Baruè	72	260,200	206	2,370,000	164	608,154	-	-	150	1,605,470	592	\$ 4,843,824
Beira	1,523	9,080,793	248	1,430,452	4,012	171,932,852	1,046	23,583,116	365	22,732,263	7,194	\$ 228,759,476
Búzi	-	-	-	-	-	-	305	7,500,000	320	20,060,000	625	\$ 27,560,000
Caia	40	930,000	-	-	-	-	-	-	500	7,564,840	540	\$ 8,494,840
Chemba	-	-	-	-	-	-	-	-	2,000	224,326,000	2,000	\$ 224,326,000
Cheringoma	100	2,750,000	-	-	-	-	-	-	20	53,305,350	120	\$ 56,055,350
Chimoio	993	7,777,992	213	1,656,000	351	3,504,762	69	654,630	85	10,512,667	1,711	\$ 24,106,051
Dondo	-	-	215	23,312,694	40	1,116,390	75	59,085,600	-	-	330	\$ 83,514,684
Gondola	20	254,187	10	1,200,000	127	1,301,928	-	-	7	840,000	164	\$ 3,596,115
Guro	-	-	-	-	-	-	-	-	44	22,955,726	44	\$ 22,955,726
Macossa	-	-	39	800,000	-	-	-	-	-	-	39	\$ 800,000
Manica	25	573,495	-	-	546	7,354,560	101	19,365,280	205	4,457,720	877	\$ 31,751,055
Maringue	-	-	21	383,000	-	-	-	-	-	-	21	\$ 383,000
Mossurize	-	-	-	-	50	1,500,000	-	-	-	-	50	\$ 1,500,000
Nhamatanda	150	12,000,000	-	-	-	-	28	500,000	-	-	178	\$ 12,500,000
Sussundenga	-	-	10	200,000	-	-	2,650	280,000,000	91	272,731	2,751	\$ 280,472,731
Tambara	-	-	24	457,000	-	-	-	-	-	-	24	\$ 457,000
<b>TOTAL</b>	<b>2,923</b>	<b>\$ 33,626,667</b>	<b>986</b>	<b>\$ 31,809,146</b>	<b>5,290</b>	<b>\$ 187,318,646</b>	<b>4,274</b>	<b>\$ 390,688,626</b>	<b>3,787</b>	<b>\$ 368,632,767</b>	<b>17,260</b>	<b>\$ 1,012,075,852</b>

\* CPI does not present data for the largest source of FDI

Source: Mozambican Authorities (CPI 2005-2009).

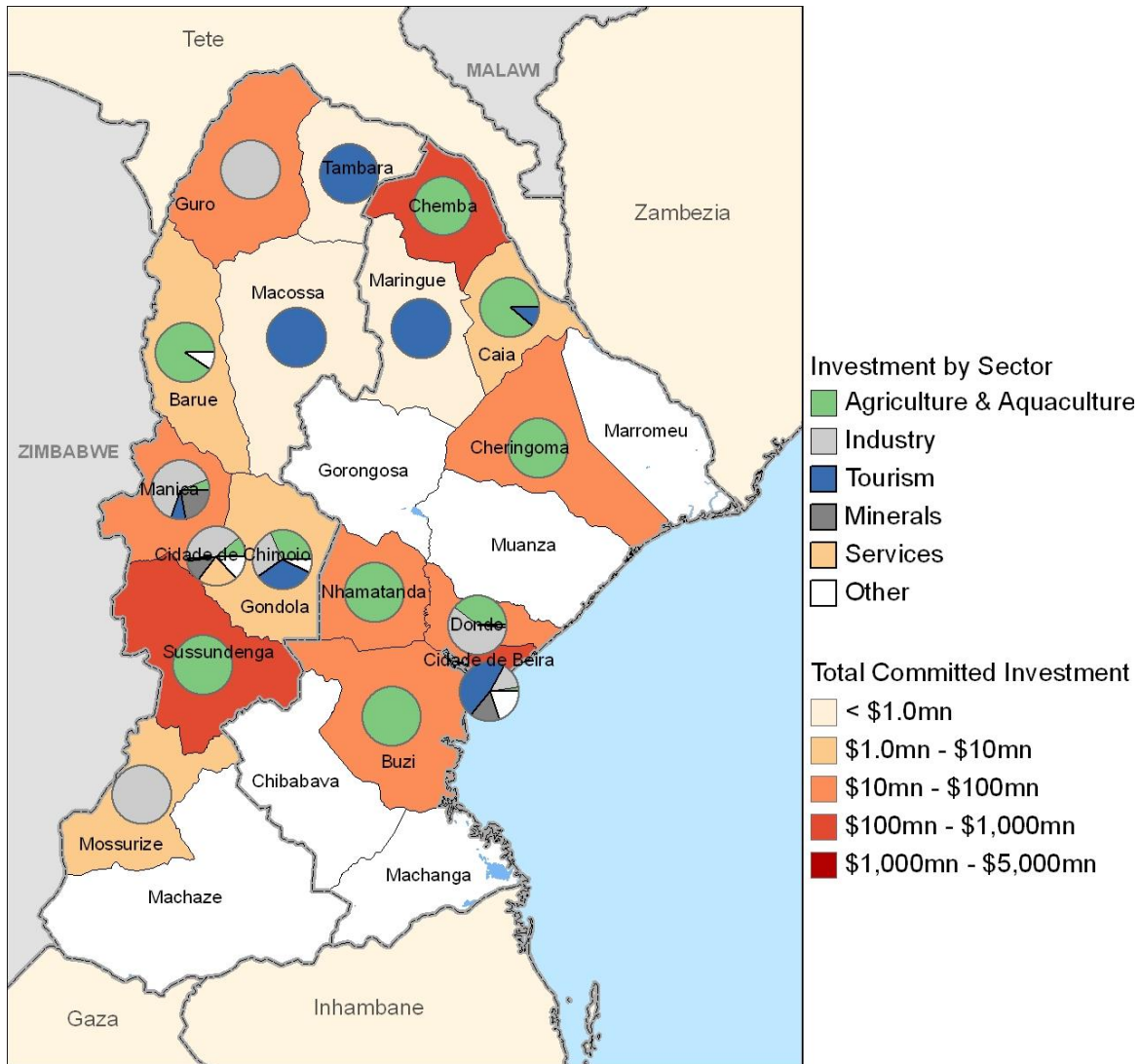


**Table 14. CPI-Authorized Investments in Sofala and Manica, by Industry, 2005-2009**

Sector	2005		2006		2007		2008		2009		2005-2009	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
Transport & communication	20	434,000	-	-	63	13,400,000	29	2,917,000	15	160,000	127	\$ 16,911,000
Agriculture and fisheries	105	170,000	-	-	128	1,810,000	50	120,000	-	-	283	\$ 2,100,000
Agriculture and processing	1,233	15,118,295	431	25,530,194	201	228,600	3,144	344,156,907	3,088	307,974,391	8,097	\$ 693,008,387
Construction	490	1,645,394	180	1,802,440	314	5,966,390	637	14,596,748	-	-	1,621	\$ 24,010,972
Industrial	976	5,956,437	266	384,012	884	13,192,189	365	71,026,716	722	46,654,937	3,213	\$ 137,214,291
Mineral resources	-	-	-	-	98	38,150,000	-	-	47	3,655,667	145	\$ 41,805,667
Services	-	-	-	-	-	-	-	-	38	6,857,000	38	\$ 6,857,000
Tourism & hotels	71	243,374	109	2,130,000	3,059	100,590,567	-	-	127	9,803,722	3,366	\$ 112,767,663
Others	28	254,187	-	-	29	1,550,000	99	4,000,000	-	-	156	\$ 5,804,187
<b>TOTAL</b>	<b>2,923</b>	<b>\$ 23,821,687</b>	<b>986</b>	<b>\$ 29,846,646</b>	<b>4,776</b>	<b>\$ 174,887,746</b>	<b>4,324</b>	<b>\$ 436,817,371</b>	<b>4,037</b>	<b>\$ 375,105,717</b>	<b>17,046</b>	<b>\$1,040,479,168</b>

Source: Mozambican Authorities, (CPI 2005-2009).

**Figure 12. Sofala & Manica Provinces: CPI-Authorized Investments in 2005-2009, by District & Sector**



Source: Mozambican Authorities (CPI 2005-2009).

Some of the major investments are described below.

### 1. Private Investments

**Sugar.** Sugar accounts for 3.4 percent of total trade in Mozambique—about US\$66.3 million per year. Two sugar companies currently operate in the Beira Corridor: Sena Sugar in Zambezia Province and Mafambisse Sugar Mill and Plantation in Sofala Province. Both are miller/planter operations, and both have plans to expand production through outgrower schemes.

The Mafambisse Sugar Mill, *Acucarreira de Moçambique*, is 75 percent owned by the South African Tongaat Hulett group. It employs 15,000 people, including 2,500 who were hired after US\$20 million was invested in 2008 to expand the plantation and modernize the irrigation system. The new irrigation system will enable an area of 2,100 ha to be irrigated, and increase production from 50,000 to 85,000

tons. The investment also made it possible for the company to use the railway to transport the sugar cane from the plantation to the mill 60 km away, which will substantially cut transport costs.<sup>103</sup>

**Horticulture.** The Vanduzi Company has been in Bárúè district, Manica Province since 2004, and its 410 ha farm employs more than 700 people. The company is owned by the South African Moçfer group and specializes in the production of baby corn and a variety of chilies. The produce is exported to markets in Europe and South Africa. The company also has a pack house with the capacity to store 70 tons of perishables per week; and a rice processing factory in Chokwe with the capacity to process 20,000 tons of rice per year.<sup>104</sup>

Prio Agricultura, owned by Portuguese investors, farms cereal and oil seeds on some 9,200 ha of land, mainly in several districts in Manica. The company's total investment is US\$48 million, and Prior Agricultura has secured a second plot where they are expected to begin work soon.<sup>105</sup> The company plans to work its own land and have an outgrowing scheme. It expects to begin processing in 2010.

**Tourism.** The Carr Foundation, a US not-for-profit organization, is partnering with the Government to protect and restore the ecosystem of Gorongosa National Park and develop an ecotourism industry to benefit local communities. A 20-year contract was signed in January 2008 for the co-management of the park, and the Carr Foundation will contribute US\$40 million toward rehabilitating the park.<sup>106</sup>

**Biofuel.** UK-based Principle Energy is expected to invest US\$400 million in ethanol production from sugarcane, which it will grow on 20,000 irrigated hectares. It its US\$290 million ethanol plant and plans to produce 212 million liters of ethanol per year and 85 megawatts of electricity starting in 2013. The investment is expected to generate some 1,600 jobs at maturity within the project itself, with additional jobs being created as a spillover effect. The site is located in Dombe, Manica and the biofuel is expected be exported via Beira Port.<sup>107</sup>

Zambeze Grown Energy, with private Mozambican, Asian, and South African capital, has received a concession of 15,000 ha of land in Chemba district, Manica to plant sugar cane for biofuel production. The company plans to invest US\$224 million. The project was approved in August 2009 and is in its start-up phase.

Eneterra South Africa has received a concession of 18,920 ha of land in Cheringoma district for a US\$53 million investment in jatropha production for biofuel. This project was also approved in August 2009 and is in its start-up phase.

**Fishing.** The shrimp sector remains one of the bigger export earners for Mozambique, although falling international prices have affected its performance. The sector accounts for 1.95 percent of total trade, equivalent to US\$38.5 million per year.<sup>108</sup> The majority of shrimp companies are based in Beira, the largest of which is a Spanish company called Pescamar. Currently, many of the national companies are semi-industrial and need to invest in upgrading their fleets. Investments in aquaculture are also increasing in the Beira area.

**Grain processing.** DECA is a Mozambique company in Chimoio, Manica, which has been operating since 2005. It is part of Agriterra group of companies. Its operations focus on the treatment and

processing of grain purchased from local farmers. DECA has built a “buying points” system across the Chimoio area, which enables it to buy from thousands of smallholder farmers. The company’s mill currently has a 50,000 ton storage capacity, consisting of 1,000 one-ton silos; as well as seven warehouses with the capacity to store 3,500 tons of maize, and two milling plants. DECA had a record year in 2009, for DECA, with 34,500 tons of maize purchased from local farmers. The processed and packaged products are sold under the DECA brand, and 15 percent of the company’s production is sold to the World Food Program.<sup>109</sup> The company also has operations in Tete.

**Cattle ranching.** Mozbife, another company in the Agriterro family, had 720 head of cattle in 2009, and plans to invest US\$5.1 million to increase the herd to 10,000 by 2013. The growing demand for beef in Mozambique has made cattle ranching and feedlot production good areas for investment. The current 1,000 hectare ranch at Movende is being expanded, and a 20,000 hectare ranch at Dombe is being stocked and developed. By-products from the DECA milling process will be used as feed for the herd. In addition, an abattoir and feedlot are in the pipeline.

## 2. Infrastructure Investments

### Upgrading of Beira Port

Beira Port has a nominal capacity of 5 million metric tons, and its total traffic in 2009 was 92,236 containers weighing 2.07 million metric tons. Almost half of the cargo that comes through the port is transit cargo. Beira is the only port in the region that handles cargo for four countries—Malawi, Mozambique, Zambia, and Zimbabwe. Cargo from Botswana and DRC Congo is also increasing.

The port is operated by the Dutch concessionaire Cornelders, and handles a variety of break bulk, neo bulk, and bulk cargo, including petroleum products. The 25-year concession runs for another 15 years. The port currently has a container terminal, a general cargo terminal, and a liquid bulk facility, in addition to a pipeline linking the port with Zimbabwe. Access to the port is via the dredged Macuti channel.<sup>110</sup> EIB and the Danish and Dutch governments are providing funding for the dredging of the channel on an emergency basis and to acquire an ocean dredging vessel. Once the dredging is completed and is being maintained, the port will have the capacity to accommodate 30-ton vessels. Current average traffic from the port is 50 trucks per day to Zimbabwe, more than a 100 trucks per day to Malawi, and 5 trucks per week to Zambia. The port has 450 permanent skilled staff and an average of 1,000-1,500 unskilled day laborers.

In addition, the Norwegian fertilizer company Yara is planning to invest in a bulk terminal facility at the port to handle fertilizer imports. This should facilitate shipments of fertilizer and make it available all year to the countries served by the port. Construction is expected to begin in the first quarter of 2011. The company is present in all of the Beira Agricultural Growth Corridor countries—Mozambique, Zambia, Malawi, and Zimbabwe—and is one of the main drivers of the BAGC initiative.<sup>111</sup>

An oil terminal at Beira Port is also in the pipeline; an Environmental Impact Assessment (EIA) for that project is currently being undertaken. The proposed terminal would have a capacity of 65,000 m<sup>3</sup> and supply both the domestic market and the regional markets of Zimbabwe, Zambia, Malawi, and Republic of Congo. The terminal would be only for finished products; there are no plans to build an oil refinery.<sup>112</sup>

There is also a new grain terminal under construction with 6 silos and a capacity of 30,000 metric tons in the first phase, and 6 more in the second phase. In addition, there are plans for warehouses, a terminal for handling sugar, biofuel tanks, and other improvements to the port layout and organization.<sup>113</sup>

### **Other infrastructure investments**

Danida is financing the rehabilitation of parts of Beira airport, including the runway, lights, and traffic control tower equipment. The timeframe and financing amount are now being reviewed. Rehabilitation of the rail line from Moatize to Dondo is underway, and the SENA line rehabilitation has been completed (see the section on Tete for more information). In addition, the World Bank has an urban water project that focuses on Beira and other towns.

### **3. Other Donor Investments**

The World Bank is supporting an agricultural program in Sofala and Manica that aims to enhance the productivity of smallholder farms with new or rehabilitated irrigation schemes. The Bank also supported a Municipal Development Project (PDM) that closed in 2005. The PDM helped improve the revenue generating abilities of the municipalities.

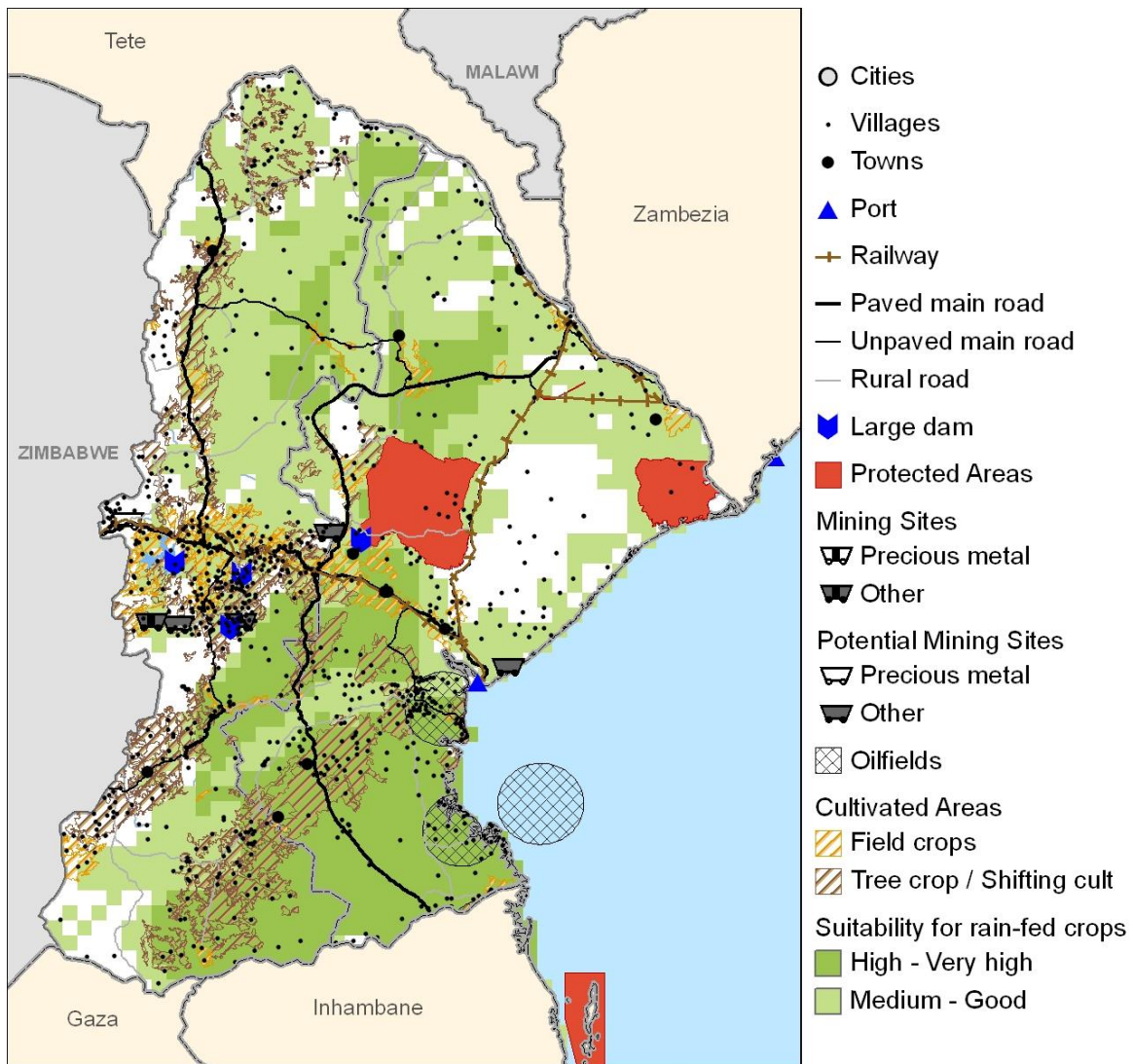
GTZ is supporting business environment reforms in Manica and Sofala to simplify rules for business registration, licensing, and inspections. The main project activities are (a) capacity building for one-stop-shops; (b) implementation of national business environment reforms and (c) improving coordination among sectors and with business associations. The US\$2 million project started in 2006 and is scheduled to finish in 2011.

The Austrian Development Agency (ADA) has been involved in Sofala Province since 1993, and is currently focusing on strengthening the capacity of district and municipal authorities in the province. ADA is also supporting a program in Sofala that aims at sustainable, equitable growth in the agricultural sector, along with the conservation of natural resources.<sup>114</sup>

The Swedish International Development Agency (SIDA) is financing the mapping of the Pungwe Basin for the benefit of the private and public sectors. The project includes a pre-investment fund to support feasibility studies for investment projects.<sup>115</sup> The French Development Agency (AFD) is funding a similar mapping program for the Búzi basin. These projects will provide an information base for accelerating investments in the region.

The Swiss Cooperation has supported the municipality of Beira in the production of its five-year strategic plan, launched in February 2010.

**Figure 13. Sofala and Manica Provinces: Cultivated Areas and Mining Sites**



## D. CHALLENGES AND CONSTRAINTS

Stakeholders in both the public and private sectors emphasize the many challenges and constraints within the Beira Corridor that could jeopardize the current momentum.<sup>116</sup> At a group discussion during the inauguration of the Beira Agricultural Growth Corridor Partnership in February 2010, stakeholders raised concerns about infrastructure, labor force skills, access to finance, business environment, and the investment climate, as well as the capacity and service orientation of the local government and government institutions.

### 1. Business Environment

The local private sector in Beira pointed to the business environment as a real constraint. These views were confirmed by an Austrian Development Agency study that found that Sofala was less than business

friendly and had a higher bureaucratic burden than most other provinces in Mozambique.<sup>117</sup> They were also confirmed the findings of the 2003 Investment Climate Assessment (ICA).<sup>118</sup> For example, senior management spends an average of 14 days dealing with government regulations in the central region, compared to 11.8 days in Maputo and 5.5 days in the north. The central region is also subject to the largest number of government inspections—up to six per year.

Other key challenges include low labor productivity, the inefficiency of public administration, administrative barriers, a weak legal and judiciary system, corruption, and limited access to finance and banking services.

Private sector actors also raised the issue of multiple and contradictory regulations for different sectors, making it difficult for investors to obtain the necessary information and approvals. Land legislation, in particular, involves multiple institutions and decision makers involved—and the process is especially cumbersome for investments in the tourism sector. The established timeframe for getting a land lease is nominally six months, but investors say that it takes up to two years.

Further, companies have to go through complicated processes and delays to get licenses and permits. Registration of a new company, for example, is by law supposed to take one day, but it often takes up to two weeks. Attempts to make the process easier through one-stop-shops have been less than successful because of the resistance by the various institutions to relinquishing decision making power.<sup>119</sup> MSMEs, in particular, feel overburdened by regulations and inspections.

## **2. Labor Force**

The private sector and business associations also cite labor skills and low productivity as major constraints. The Investment Climate Assessment of 2009 confirms that Mozambique's average labor productivity is particularly low.<sup>120</sup> Further, the “Skills for Work” report,<sup>121</sup> published as part of the country's technical and vocational education and training (TVET) reform, finds that nearly 50 percent of the economically active population of 9 million has either no education or only basic literacy skills; and that only 6 percent of those with marketable skills are engaged in the formal sector. In addition to the critical shortage in the supply of skilled labor, that report also points to a fundamental misalignment between demand and the market-relevance of skills training. One of the consequences in the Beira Corridor is that many services are not available and have to be contracted from Maputo or neighboring countries. Transport companies in the corridor, for example, have to send their truck drivers and mechanics to Zimbabwe and South Africa for two years for training.



### **3. Infrastructure**

The main infrastructure constraint highlighted by stakeholders in the Beira Corridor is the capacity and efficiency of Beira Port, as well as its costs compared to other international ports. The total cost of shipping one 40-foot container is US\$767 in Beira Port, compared to US\$490 in Cape Town or US\$264 in the Philippines.<sup>122</sup> One reason is that Beira Port cannot accommodate direct vessel calls so ships have to unload in Durban. Port users are also concerned about the lack of regulation of the private port concessionaire, which reportedly raised tariffs twice in 2009 without consulting stakeholders.<sup>123</sup>

Another major constraint is the quality and cost of electricity, especially for investments in agricultural processing and manufacturing. A third constraint is limited rail services. For example, the Machipanda line now has only one train per day to transport granite exports from Zimbabwe to the port, compared to six trains per day in the past.

### **4. Plans and Capacity for Service Provision**

An issue that featured prominently in the consultations was the lack of local government coordination in managing growth, in terms of both urban planning and the provision of public services. There is no master plan or strategy in Mozambique for managing private sector development, and stakeholders highlighted the need for a strategic vision if the corridor is to realize its full potential.

Another interesting finding from the consultations was that branches of government institutions in Beira have little interaction with local and provincial governments, but instead work with their headquarters in Maputo or with the provincial directorates of the Ministry of Industry and Commerce (MIC).<sup>124</sup> There is an evident need for better integration of national institutions into the region in which they are based. The increased coordination of activities and resources among national and local agencies could improve service provision as more processes are decentralized; and the shared knowledge of different institutions could make government more responsive to the needs of the business community.

## **E. RECOMMENDATIONS**

### **1. Upgrading the Capacity of Beira Port**

All stakeholders agree that upgrading the port is the most significant and immediate priority for Beira Corridor. A joint EIB, Danida, and Dutch initiative to dredge the port channel and build a larger capacity ocean dredger is underway, but has reportedly been delayed due to financing issues. The port is the single most important factor in the economies of the city of Beira and the corridor, and a well-functioning port would significantly boost those economies and create employment, both in the port itself and in the companies catering to port activities.

### **2. Building Capacity for Local Governance**

Strengthening the capacity of the local government through technical assistance would help meet the needs of the private sector, especially for public service provision, which would in turn bring increased



investments and growth. As noted in the World Bank’s recent poverty, gender, and social assessment of Mozambique,<sup>125</sup> the country has a shortage of people with skills and experience in public administration and management. And the provincial government of Sofala has no strategy to manage the growth of the city or province or plans to coordinate the potential growth of the corridor.

### **3. Investing in Infrastructure**

Priority infrastructure investments include toll roads, electricity, and water and sanitation. Private sector investors indicated that they would not mind paying tolls—particularly on the roads to Zimbabwe and Malawi—if that meant having well-maintained, good quality roads that reduce transportation time and costs. Access to electricity is especially essential for large-scale agricultural investments, which require irrigation and onsite processing facilities that need to be supplied from an electricity grid. Good water and sanitation services were also mentioned as critical for attracting investors.

### **4. Supporting Skills Development**

Development of the corridor presents opportunities for partnerships between local institutions and large investment projects to train skilled workers in different areas. Creating qualified employable labor for sectors that hire on a large scale would reduce poverty, bring down unemployment, and have a significant impact on growth. Skills development initiatives are particularly important in light of Mozambique’s growing youth demographic, which could lead to political instability if their needs and aspirations are not fulfilled.

### **5. Supporting the Beira Agricultural Growth Corridor (BAGC)**

One part of a growth poles strategy would be to work through the private sector-led BAGC initiative. The BAGC initiative aims to boost the growth potential of the corridor by leveraging private sector investments. There is a clear role for the public sector to support this initiative through integrated investments at specific growth poles within the corridor.

## Chapter 6 – Prospects for a Growth Pole in the Maputo Corridor

### A. INTRODUCTION

The Maputo Corridor connects the northern hinterlands of South Africa with Mozambique's capital, Maputo, and the deepwater ports of Maputo and Matola, via the EN4 highway, which runs 92 km from the South African border straight to Port Maputo before terminating close to downtown Maputo. Figure 14 presents the Maputo Corridor and highlights its potential reach deep into South Africa and Swaziland. It also depicts the main routes and transport points.

The province of Maputo is the southernmost province of the country. As of 2007, it had a population of 1.2 million of which almost 0.7 million live in the capital. Maputo Province, in particular Maputo City, is the economic hub of the country, where the majority of private sector and donor activity is concentrated. Since the end of the civil war in 1992, Maputo has received the vast majority of FDI and has also experienced the greatest share of GDP growth. Much of the immediate post-war rehabilitation was also concentrated in the Maputo area, which has resulted in its relatively more developed infrastructure compared to other regions on the country.

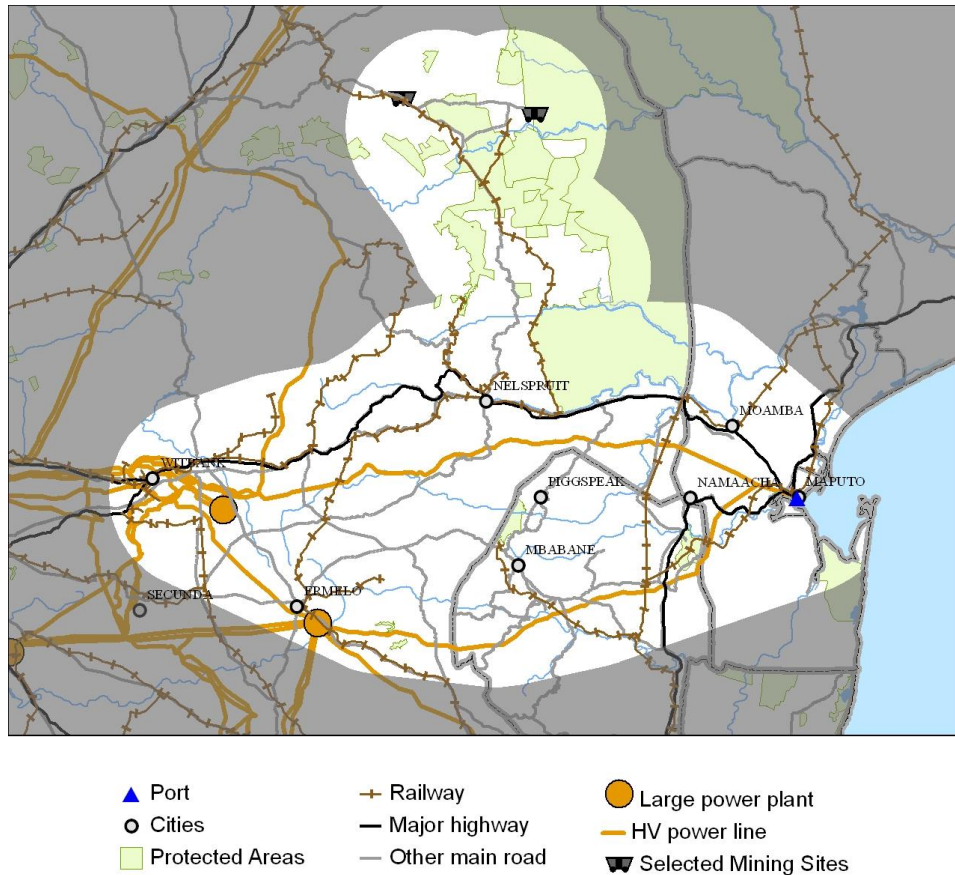
The country's largest industrial park, Beluluane, and the Mozal aluminum smelter are both located in Maputo, as are other large beer, soft drink, cement, and cereal milling industries (e.g., *Cimentos de Mozambique*, *Cervejas de Moçambique*, Coca-Cola).<sup>126</sup> There are also a number of large and promising agribusiness investments such as the Maragara sugar mill and Banalandia, which supplies bananas to both the domestic and South Africa markets. The province also benefits from a number of universities and technical schools. Further, much of the country's tourism growth has taken place in the Maputo area, which includes the Maputo Elephant Reserve and the Kruger Transfrontier Park, which Mozambique shares with South Africa and Swaziland.

Maputo is witnessing a mini-boom in hotel construction in anticipation of the World Cup, including a multi-million dollar upgrade of the Polana Hotel and a new Radisson hotel. Maputo also houses the Joaquim Chissano International business conference center. On the financial services side, most commercial banks are concentrated in Maputo and the majority of bank branches are in Maputo Province, although some have recently opened in other parts of the country. The Confederation of Business Associations (CTA), which represents 70 federations, associations, and chambers of commerce, is also headquartered in Maputo.

### B. PROVINCIAL STRATEGY AND DEVELOPMENT PRIORITIES

On the municipal level, there is a five-year Municipal Plan for Maputo for 2009–2013,<sup>127</sup> developed after a lengthy consultative process. While the plan is comprehensive and does have sections on infrastructure and local economic and social development, these are city-based initiatives not tied to a wider economic development strategy for the Maputo Corridor.

**Figure 14. Maputo Corridor**



### C. CURRENT AND PLANNED INVESTMENTS

The data for authorized investments by sector from 2005 to 2009 (CPI 2005–2009) show that Maputo Province has a fairly well-diversified economic base, with investments in transport, telecommunications, the financial sector, industry, and tourism (Table 15). While Maputo has traditionally received the lion’s share of public and private investments, over the past five years its share of new investments has steadily declined, from nearly 75 percent in 2006 to less than 20 percent in 2009. This shows a more even distribution of new investments to other regions of the country, especially in the mineral resources, energy, agriculture processing, and more recently, tourism and construction sectors.

Still, Maputo province remains the predominant business and financial center of the country, and within the province, the bulk of new investments continue to take place in Maputo City, with Matola District being a distant second.

**Table 15. CPI-Authorized Investments in Maputo Province by Sector, 2005–2009**

Sector	2005		2006		2007		2008		2009		2005-2009		2005-2009 Mozambique Total	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
Transport & communication	209	5,852,549	1,388	158,026,142	515	57,681,514	356	83,813,954	365	17,794,625	2,833	323,168,785	4,134	439,361,325
Agriculture and fisheries					25	10,500,000			147	3,203,875	172	13,703,875	816	53,397,122
Agriculture and processing	3,511	112,771,297	1,232	23,073,927	2,401	57,314,514	1,698	31,147,316	1,100	37,834,066	9,942	262,141,121	49,545	6,303,139,512
Construction	50	1,150,000	83	1,983,036	933	7,529,977	298	13,426,833	206	3,975,800	1,570	28,065,646	4,375	149,649,500
Industrial	708	28,592,271	959	21,777,570	5,079	325,242,053	2,065	137,485,597	858	21,291,616	9,669	534,389,108	18,705	892,668,673
Mineral resources and energy	154	15,638,650	292	23,000,000							446	38,638,650	1,903	6,627,891,567
Services									1,445	43,877,978	1,445	43,877,978	3,545	167,730,328
Tourism & hotels	2,228	47,511,506	1,709	368,823,696	605	28,044,286	1,615	68,165,022	73	8,002,172	6,230	520,546,682	17,139	1,310,411,321
Banking, insurance, and leasing	84	1,900,000	62	2,933,500	20	1,532,857	29	12,833,333			195	19,199,690	394	39,883,750
Others	540	14,545,747	6,378	48,766,443	314	51,957,706	562	32,382,301			7,794	147,652,197	8,651	239,389,817
<b>TOTAL</b>	<b>7,484</b>	<b>227,962,021</b>	<b>12,103</b>	<b>648,384,314</b>	<b>9,892</b>	<b>539,802,908</b>	<b>6,623</b>	<b>379,254,357</b>	<b>4,194</b>	<b>135,980,132</b>	<b>40,296</b>	<b>1,931,383,732</b>	<b>109,207</b>	<b>16,223,522,916</b>

Source: Mozambican Authorities (CPI 2005-2009).

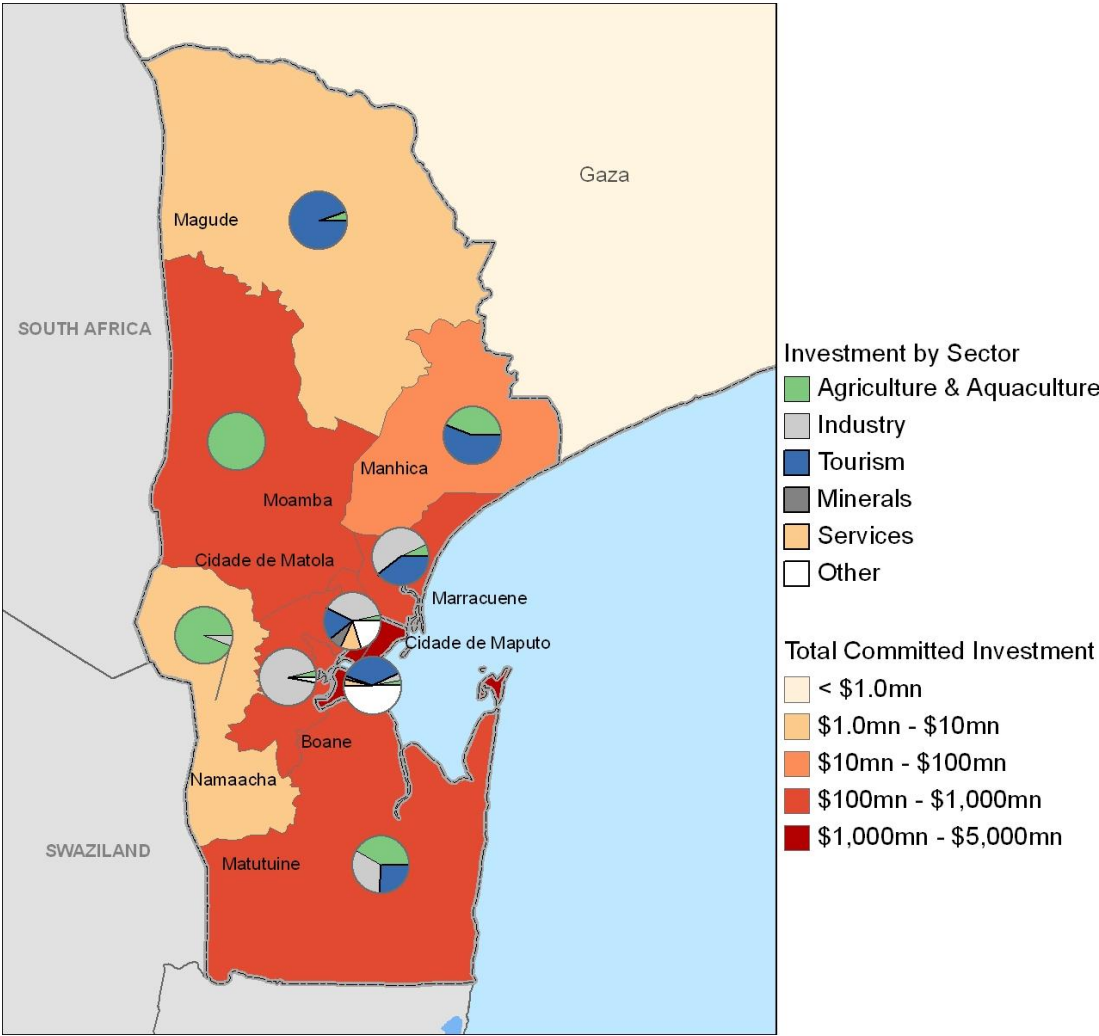
**Table 16. CPI-Authorized Investments in Maputo Province by District, 2005–2009**

District	2005		2006		2007		2008		2009		2005-2009	
	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment	Employment	Committed investment
City of Maputo	1,322	46,336,999	9,910	558,554,512	2,438	140,704,758	1,022	129,724,692			14,692	875,320,961
Matola	301	9,978,178	844	29,333,173	3,692	52,720,855	2,470	90,051,628	1,361	64,810,142	8,668	246,893,976
Boane	323	14,894,037	25	5,435,000	718	174,885,695	398	41,167,965	158	4,503,000	1,622	240,885,697
Inhaca					15	320,800					15	320,800
Machava	18	187,217							1,152	14,050,606	1,170	14,237,823
Magude	25	2,857,143	10	160,000							35	3,017,143
Manhiça	10	325,000			514	4,280,000	265	9,001,200	460	2,570,100	1,249	16,176,300
Marracuene	5,000	50,000,000	30	450,000	660	114,714,286	366	4,915,652	214	6,549,119	6,270	176,629,057
Matutuine	335	3,883,447	149	44,609,432	1,738	51,655,714	805	82,301,903	687	41,534,199	3,714	223,984,696
Moamba	150	99,500,000	534	4,297,680			1,141	18,969,300	112	1,462,966	1,937	124,229,946
Namaacha			601	5,544,517	117	520,800	61	1,732,731	50	500,000	829	8,298,048
Xinavane							95	1,389,285			95	1,389,285
<b>TOTAL</b>	<b>7,484</b>	<b>227,962,021</b>	<b>12,103</b>	<b>648,384,314</b>	<b>9,892</b>	<b>539,802,908</b>	<b>6,623</b>	<b>379,254,357</b>	<b>4,194</b>	<b>135,980,132</b>	<b>40,296</b>	<b>1,931,383,732</b>
<b>TOTAL MOZAMBIQUE</b>	<b>15,113</b>	<b>482,186,373</b>	<b>19,372</b>	<b>850,209,001</b>	<b>27,469</b>	<b>8,062,268,793</b>	<b>20,495</b>	<b>1,080,254,032</b>	<b>26,758</b>	<b>5,748,620,716</b>	<b>109,207</b>	<b>16,223,538,916</b>

Source: Mozambican Authorities (CPI 2005-2009).

Figure 15 graphically presents the authorized investments by district and sector. What becomes clear is that the interior districts are heavily dependent on one sector (Namaacha and Moamba on agriculture, Magude on tourism). Only in the areas in and around Maputo and Matola is there a diversity of sectors (services, tourism, industry, agriculture). This demonstrates that the areas around the corridor have both the highest authorized investments and the greatest diversity of economic activities in the province.

**Figure 15. Maputo Province: CPI-Authorized Investments in 2005-2009, by District and Sector**



**1. Mozal**

Since 1998, Mozambique has been engaged in an intensive effort to attract megaprojects in order to establish itself as a favorable environment for FDI. The first—and until recently the largest—were the US\$2.8 billion aluminum smelter projects Mozal I and II in the Matola district. Region. The smelters produce about 506, 000 tons of aluminum ingots per year. Alumina is sourced in Australia and aluminum ingots are exported mainly to the EU. The firm is a joint venture of the Australian-British BHP Billiton mining company (47 percent), the Japanese Mitsubishi Corporation (25 percent), the Industrial Development Corporation of South Africa (24 percent), and the Government of Mozambique (4 percent).

Key elements contributing to the decision to invest were cheap electricity supplied by ESKOM (at a price of US\$0.01 a kilowatt as of 2007—well below the Cahora Bassa price of US\$0.06 a kilowatt; and the availability of the rehabilitated Maputo port.

Favorable tax treatment and incentives were another factor. As the first megaproject in Mozambique, Mozal was given these incentives because the Government had not yet established its reputation as a partner for large multinational investments, and the country's business environment had not been tested internationally. The Government declared the firm's installations an industrial free zone, which gave it exemptions on customs duties and zero profit tax for 10 years. In place of company tax, Mozal pays a "final tax" (tax on total revenue) of 1 percent. Mozal's profits rose to US\$414 million in 2006 and to US\$550 million in 2007 on revenues of US\$1.5 billion.<sup>128</sup> The company's total contribution to Mozambique's exchequer in the form of dividends, revenue taxes, social security contributions, and employee taxes was US\$30.4 million in 2006 and US\$40.8 million in 2007.

Mozal also has a small and medium enterprise linkage program, supported by the IFC, which has helped local enterprises to supply goods and services in areas such as signage, air conditioners, cleaning chemicals, pumps, mosquito nets, landscaping, and protective clothing. The company currently spends some US\$96 million a year on local goods and services, excluding payments for electricity and water.

## **2. Beluluane Industrial Park/Matola Industrial Zone**

As noted above, Maputo Province hosts Beluluane Industrial Park, located in the Matola Industrial Zone. The World Bank's Private Sector Development Project (PODE) financed establishment of the park in 2007. The park spans 24 hectares and has attracted 22 businesses employing some 1,000 workers and has generated US\$20 million in investment. The park is located across from Mozal, and the World Bank and IFC have both contributed to the development of linkages between Mozal and the park enterprises.

More recently, a US\$50 million steel tube factory—a joint venture of South African, Chinese, and Mozambican companies—was established in the park. It covers about five hectares of land, employs around 200 workers, and is exempt from tax for up to 10 years. There are also plans to construct a US\$50 million gas pipeline to the park from Ressano Garcia, Mozambique's main border post with South Africa.

Despite these successes, however, the park is still far from achieving its potential, due to the lack of financial resources for further expansion of park infrastructure, over-dependence on linkages with Mozal, lack of diversification, water shortages, and a scarcity of skilled workers. In addition to the Beluluane Industrial Park, other investments in the Matola Industrial Zone include an Aga Khan-supported textile factory. Further development of the zone over the next five years would be critical for urban employment creation, and could have significant forward and backward linkages. Some of the same issues hampering the expansion of the Beluluane Zone are impacting the development of the Matola Industrial Zone.

## **3. Tete-Maputo Transmission Line**

The transmission line from Tete to Maputo, financed partly through the World Bank and partly through commercial banks, will be the backbone of an expanded electricity grid. Financial closure has not yet taken place, but feasibility studies, environmental impact assessments (EIAs), social assessments, and fly-

overs have all started. The line will expand electrification in Mozambique from 13 to 20 percent of the population. Currently, power from Cahora Bassa does not reach Maputo directly, but goes via South Africa on lines belonging to Eskom, the South African electricity company, which are rented by Mozambique's electricity authority, EDM. With the new backbone, Eskom is expected to be the biggest off-taker.

#### **4. Corridor Transport Facilities in Mozambique**

The corridor's transport facilities include roads, railways, ports, border crossings, and airports. The most important of these are described briefly below.<sup>129</sup>

##### **EN4 Toll road to South Africa**

The main road on the South African side is the N4, a two- to four-lane national toll road. After crossing the border into Mozambique, the N4 becomes the EN4, which runs to Maputo. The EN4 was completed in 2004 and is operated by the concessionaire Trans African Concessions (TRAC).

##### **Maputo Port**

The Port of Maputo, the ocean outlet to the Maputo Corridor, has two main terminals, Maputo and Matola. The Matola Bulk Terminal, six kilometers upriver from the Maputo Terminal, handles primarily bulk cargo, such as coal, aluminum, light and heavy fuels, mineral oil products, and cereals. Maputo Terminal handles all other cargo, including general cargo, containers, and some specialized bulk cargos.

This deepwater port is concessioned to the Maputo Port Development Company (MPDC), which has brought improvements in the Maputo Port's efficiency. Maputo port is close to the most important South African region, and has a geographic advantage over Durban, South Africa's busiest port: it is closer to Johannesburg, 581 kilometers away by rail, compared with 750 kilometers distance between Durban port and Johannesburg.

##### **Railways**

In South Africa, the rail lines are owned and operated by country's national railway, Spoornet. In Mozambique, the rail lines are operated by the state-owned Caminho de Ferro de Moçambique (CFM-Sud).

##### **Lebombo/Ressano Garcia Border Post**

The main border post in the corridor between South Africa and Mozambique is about 90 kilometers from Maputo, with Lebombo on the South African side and Ressano Garcia on the Mozambican side. A customs facility at kilometer 4 on the Mozambican side is used to clear trucks during peak periods when border traffic is heavy.

##### **Maputo Airport**

The Maputo airport is currently being expanded and modernized, at a total cost of US\$75 million. The first phase, a new US\$6.7 million cargo terminal financed by Aeroportos de Moçambique (ADM). The second phase, a new international passenger terminal, control tower, access roads, and car park is



ongoing. Once completed, the new terminal will have a capacity of 900,000 passengers per year, with the possibility of expanding to 3 million per year in the future. The old terminal will be used for domestic passengers.

## 5. Maputo Corridor in South Africa

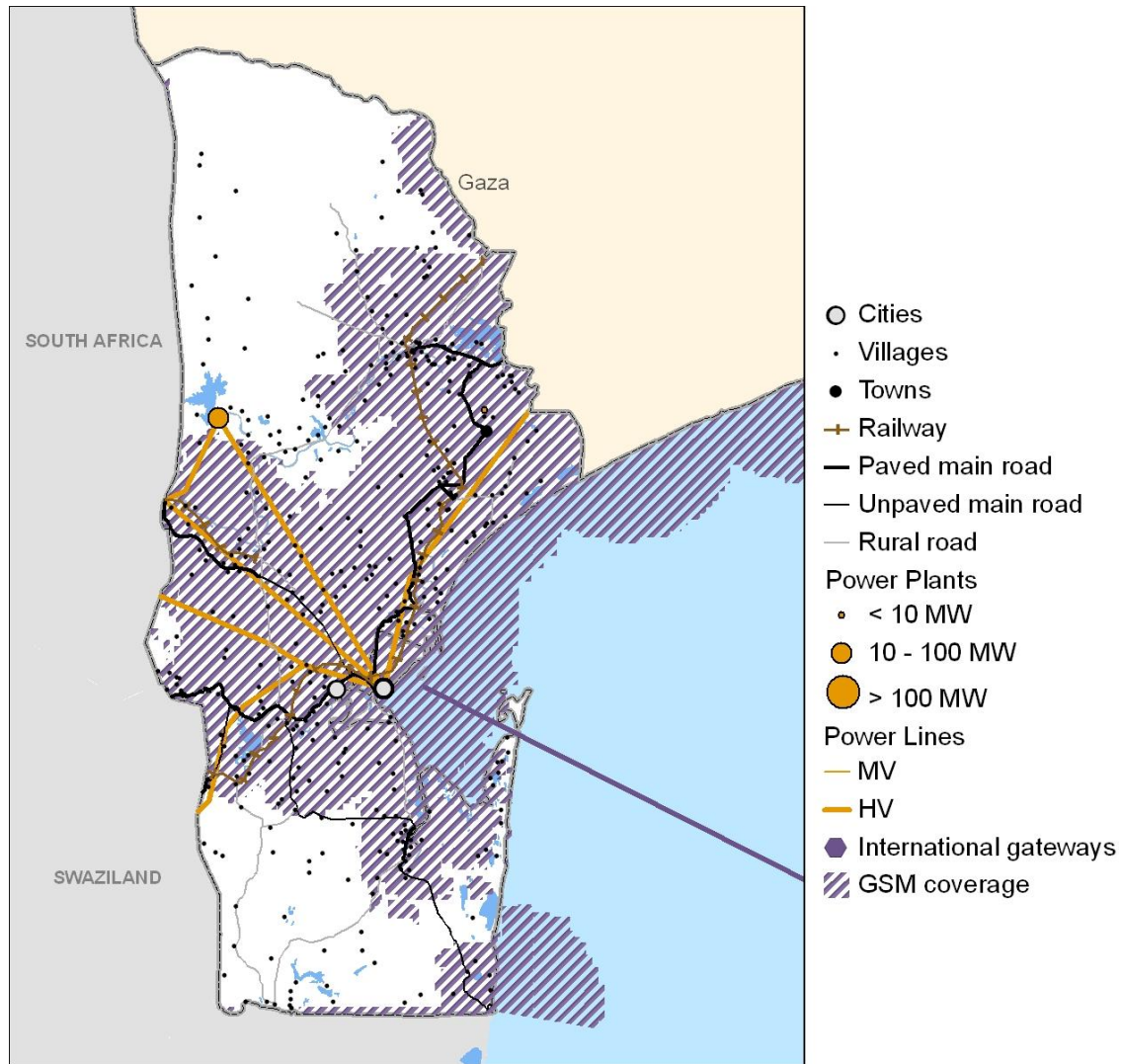
The Maputo Corridor runs through the most highly industrialized and productive regions of Southern Africa, including<sup>130</sup>:

- **Gauteng Province.** South Africa's Gauteng has traditionally been the largest gold producing region in the world. Gauteng is now the engine of the sub-continental economy and contributes to approximately 40 percent of South Africa's GDP. As an industrial powerhouse, Gauteng is responsible for the highest concentration of manufacturing and industrial production in the country. Being a landlocked province, the continued development of the Maputo Corridor is a key element to offering Gauteng's importers and exporters shorter, greater, more cost-effective, and faster access to its nearest deep water ports.
- **Limpopo Province.** The Maputo Corridor also links South Africa's landlocked, northernmost province, Limpopo, named after the vast river of the same name. In 1995–2001, Limpopo was South Africa's fastest growing province. Its economy is primarily based on agriculture and mining, although the province has traditionally focused on agricultural citrus production. It is the third largest mining producer in South Africa, generating 9 percent of the country's income arising from mining activities. Bordering on Botswana, Zimbabwe and Mozambique, Limpopo is also the transit point for most of the trans-South African freight headed to and from landlocked Zimbabwe, Zambia, and Malawi.
- **Mpumalanga Province.** The lion's share of the Maputo Corridor runs through Mpumalanga, which contains the bulk of South Africa's electricity generating coal-fired power stations. The province accounts for 76 percent of South Africa's coal mining output and 50 percent of national coal reserves, much of which is exported via the Matola Coal Terminal in Matola Port, Maputo. The corridor also links with important production centers in the Gert Sibande District, which contains a large bulk of South Africa's electricity generating coal-fired power stations. With its close proximity to the gas fields of the Mozambican coast and the closest port to the South African northern hinterland, Mpumalanga's importance in energy production has taken on an even greater role through the completed gas pipeline running from the Temane and Pande gasfields near Moatize in Mozambique to Sasol's plant in Secunda, and the construction of liquid petrochemical pipelines along similar routes.

The Maputo Corridor also passes through vast industrial and primary production areas such as those in the Nkangala District Municipality, important centers for South Africa's coal, vanadium, and stainless steel mining and production as well as being principal areas of maize production in the province's agricultural sector. Further east, the corridor passes through the wilderness area and merges with a modern and efficient motorway before reaching the border town of Komatipoort, where the Lebombo/Resanno Garcia Border Posts and the Lebombo Dry Port are situated. This region's primary

economic activities center on sugarcane production and wildlife tourism, with access to the country's largest national conservation area, the Kruger National Park.

**Figure 16. Maputo Province: Infrastructure Assets**



## 6. The Maputo Corridor Logistics Initiative

MCLI, the Maputo Corridor Logistics Initiative, is a non-profit organization consisting of infrastructure investors and service providers from Mozambique, South Africa, and Swaziland that promotes development of the Maputo Corridor as the region's primary logistics transportation route.<sup>131</sup> A wide variety of stakeholders from the three countries—including government departments, cargo owners, road haulers, intermodal operators, rail service providers, logistics companies, clearing agents, forwarding agents, shipping lines, port agents, shipping brokers, professional bodies, associations, financial institutions, border post management, and officials—are supporting or have shown an interest in the initiative. As a voice for the private sector, MCLI plays a major role in coordinating the development of

logistics policy between the public and private sectors across national borders. Its specific objectives are to:

- Remove barriers along the corridor
- Disseminate information about developments in the corridor, and
- Publicize the strategic benefits of using the corridor.

MCLI's activities include:

- Coordinating initiatives and engaging the relevant authorities in planning service and infrastructure improvements
- Organizing events, fact-finding missions, and meetings
- Communicating progress and developments through electronic newsletters and the media
- Promoting positive attitudes towards the Maputo Development Corridor and the logistical benefits it offers
- Facilitating training opportunities, including industry cross-training of public and private stakeholders to ensure full understanding of the supply chain
- Putting users in touch with service providers, and providing information on all aspects of how to utilize and benefit from the corridor
- Development of a Corridor Supporter and Service Provider Directory and website
- Organizing strategic quarterly forums
- Organizing service provider forums.

Although MCLI has been an active and high-profile advocate for the further development of the Maputo Corridor, its membership remains heavily represented by South African investors, with less proportional representation from Mozambique. Also, its ability to influence policymakers and especially to help bridge the gap between Mozambique and South Africa authorities over major issues (such as the one-stop border crossing) has been limited.

## **7. Donor Investments**

There are several major projects in Mozambique that focus on private sector development, including SME development. These include the World Bank-funded PODE project and the IFC and CPI-funded Mozlink project, both of which have provided matching grants, loans, and technical support to help Mozambican-owned firms. The World Bank also recently launched a US\$25 million Competitiveness and Private Sector Development project that aims at improving the business environment and enhancing enterprise competitiveness in Mozambique over the next five years.

In general, the Private Sector Working Group (whose membership includes donors, Ministry of Industry and Commerce, and business associations) provides a good forum for exchanging information and

promoting coordination among the various private sector initiatives. However, dealing with a cross-sectoral challenge such as developing the Maputo Corridor entails coordination across many other sectors, including infrastructure, governance, and local economic development. This will require leadership from government and greater coordination among donors.

### **Mozlink**

Through targeted training and mentoring, Mozlink helps Mozambican SMEs to win contracts and deliver goods and services in support of megaprojects. IFC's African Project Development Facility manages the program in partnership with CPI. The first phase was focused mainly on Mozal. The second phase, currently underway, has so far trained and created linkages with 72 companies, including Coca-Cola, Cervejas de Moçambique and Sasol in Vilankulo, although impact data are not yet available (Table 17).

**Table 17. Mozlink II: Outputs, Outcomes and Impacts**

<b>1. Outputs</b>	<b>Target (at end of program)</b>	<b>Results (as of Dec. 2009)</b>
Number of workshops and training events	30	50
Number of entities receiving advisory services	80	72
Number of SMEs trained in wellness programs (HIV/AIDS, etc.)	80	72
<b>2. Outcomes</b>		
Total US\$ of sales by SMEs to MOZLINK corporate partners	US\$20 mn	US\$22 mn
Number of entities implementing recommendations	40	45
Number of individuals trained	120	130
Number of SMEs qualifying to access finance ( <i>not yet evaluated</i> )	20	-
<b>3. Impact (<i>to be evaluated at program closing</i>)</b>		
Number of formal jobs created	500	-
Value of investment/financing facilitated by Adv. Services	US\$2 mn	-
Number of entities reporting improved performance	80	45

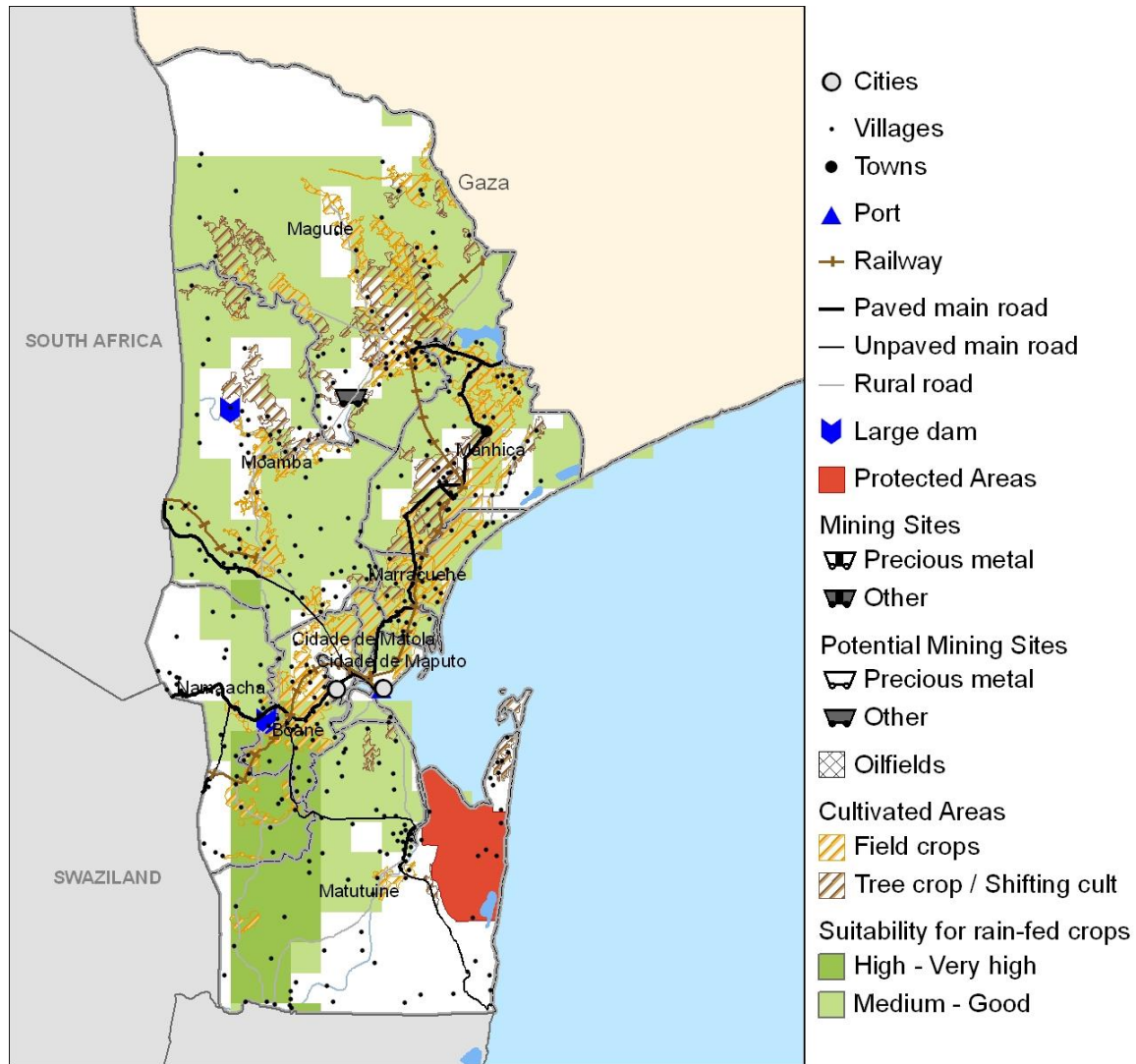
*Note:* Impact indicators will be assessed only during the last supervision period of the program (Jan-June 2010) due to the long-term nature of these indicators. Therefore, no data are yet available to be reported.

### **ProMaputo**

The World Bank is supporting implementation of the Maputo Municipal Development Program (ProMaputo) through an IDA credit of US\$30 million. The program's objective is to strengthen the capacity of the Maputo City Council (CMM) to develop, manage, and maintain quality service delivery to its citizens. It aims specifically to reinforce CMM's institutional and financial capacity to achieve long-term service delivery goals, and to implement selected priority investments. One of the deliverables has been Maputo City's first Urban Strategic Plan for 2009–2013, discussed in an earlier section of this report. A second phase of the program, currently under preparation and to be supported with a US\$50 million IDA credit, will continue to address institutional and financial reforms and service delivery, as well as focus on improving land use planning and metropolitan governance.

Figure 17 graphically presents the authorized investments by district and sector in Maputo Province. What becomes clear is that the interior districts are heavily dependent on one sector (Namaacha and Moamba on agriculture, Magude on tourism). Only in and around Maputo and Matola is there a diversity of sectors (services, tourism, industry, agriculture), indicating that the areas, indicating that the areas around the corridor with highest level of authorized investment also have the greatest diversity of economic activities in the province.

**Figure 17. Maputo Province: Cultivated Areas and Mining Sites**



#### D. CHALLENGES AND CONSTRAINTS

Mozambique could be a major outlet for Southern Africa if it becomes more logistics friendly and integrates more with the region’s infrastructure and service providers. Without more transit traffic, the country’s ports, roads, and railways will continue to be underutilized. The major port and railway reforms have improved port efficiency and increased shipping frequency. Nevertheless, the potential for corridor

traffic remains largely untapped. Even attracting only a small fraction of traffic from South Africa's northwest region could boost corridor traffic significantly. Traffic from and to Gauteng and Mpumalanga provinces is at least 700 million tons, and if Maputo were to capture just 1 percent of this traffic, its throughput would double and its port revenues would rise by tens of millions of dollars.

### **1. Competition from South African Ports**

Congestion at South Africa's Durban port will not automatically make Mozambique a major outlet for South African shippers. If anything, competition for port services will increase. South Africa is developing a new large port in Coega as a hub for all Southern Africa. When this port is operating at full capacity, South African shippers will be even less likely to shift to Mozambique, particularly since many still perceive that Mozambique's business climate is unpredictable and that corruption is more of a problem in Maputo than in Durban.

### **2. Logistics and Transport**

Unreliable logistics and poorly integrated trucking services make South African shippers even more reluctant to use Mozambican ports, especially in Maputo, where scanning fees are still higher than world practices and are levied even on bulk exports such as coal and sugar. The decision to establish a scanning fee was seen by many South African shippers as a bad signal, deterring their shift from Durban to Maputo. Further, despite recent efficiency gains, the Maputo port still does not have an advanced computerized information system. Finally, the port is inadequate to handle large vessels. In terms of railway connections, there still are not enough railway linkages between South Africa and the port; the turnaround time of trains is very long, 20 to 40 days, there is no rail passenger service across the border, and there are few regularly operating trains. Maputo also suffers from a chronic shortage of water.

### **3. One-Stop Border Post**

A key issue is the lack of an integrated one-stop border post at the Lebombo/Ressano Garcia border with South Africa. Space limitations, the excessive documentation required at the border crossing, and the customs declarations on both sides of the border greatly slow the flow of cargo. Further delays result from the border posts on both sides not being operational throughout the day. To address this, the government has committed to construct a One-Stop Border Post (OSBP) with South Africa. Once completed, the OSBP, with improved customs clearance procedures, is expected to have a positive impact on trade flows and on the use of the Maputo Port. Additionally, modernizing the border crossing procedures would boost tourism from South Africa and could provide significant local spillover benefits to the local community.

Several bilateral technical working groups have been created to analyze the legal, regulatory, and management issues, as well as information and communications technology (ICT) and human resources issues involved in creating a one-stop border post for the Maputo Corridor. At the beginning of 2008, South Africa committed US\$80 million to establish the infrastructure for the post, with the opening scheduled for mid-2010— though this timeline is likely to slip due to the uncertainty of funding from the South African side because of the global economic downturn. The Government of Mozambique has been looking at options for financing its share—approximately US\$15 million-. The Government is also



seeking advice on the design and management of the one-stop border post, including ways to promote local economic linkages for border development and management.

In addition to the financing gap, establishment of the post has proven to be a complex undertaking due to the myriad of agencies involved on both sides of the border, including customs, trade, transport, public enterprise, agriculture, border police, and other security agencies. Each of these agencies has its own mandate and priorities, which often conflict with each other. Further, the customs information systems on both sides of the border continue to be incompatible and the process of harmonization and interoperability is bound to be lengthy.

#### **4. Business Environment**

Although Maputo enjoys relatively better infrastructure and better public sector services than other regions of the country, many of the issues preventing the Maputo Corridor from reaching its full potential are symptomatic of the broader business environment constraints in Mozambique. These constraints, revealed in the Investment Climate Assessment (ICA) surveys carried out in 2003 and 2008, are described below.

Access to finance. Lack of finance ranked as the first most important constraint in the 2003 ICA survey and the second in the 2008 ICA Survey for firms based in Maputo. The key findings from the 2008 survey (World Bank 2009) are as follows:

- Although 78 percent of firms surveyed had a need for credit, only 13 percent were able to obtain credit from the banking sector.
- Most lending, which comes from private commercial banks, is highly collateralized (around 90 percent of loans) and lent at an average annual interest rate of 22 percent, seemingly regardless of the type of loan.

Firms finance their investments primarily with internal funds or retained earnings, countering the view that informal loans constitute the major part of micro and small enterprise financing.

Commercial banks (primarily foreign-owned) are concentrated in Maputo and dominate the financial sector. The three largest banks account for more than 80 percent of total bank assets and provide services primarily to enterprises that are larger, audited, and able to provide collateral. Thus, despite the relative advantage of having banks concentrated in the province, businesses in Maputo also suffer from lack of access to finance. Beyond the main commercial banks, several institutions provide finance to SMEs; these include 2 leasing companies and 68 microfinance institutions (3 banks, 1 micro bank, 6 credit unions, and 58 microfinance lenders). However, these institutions contribute only minimally to the overall availability of credit, and average loan sizes are considerably smaller and at higher interest rates than in the commercial bank sector.

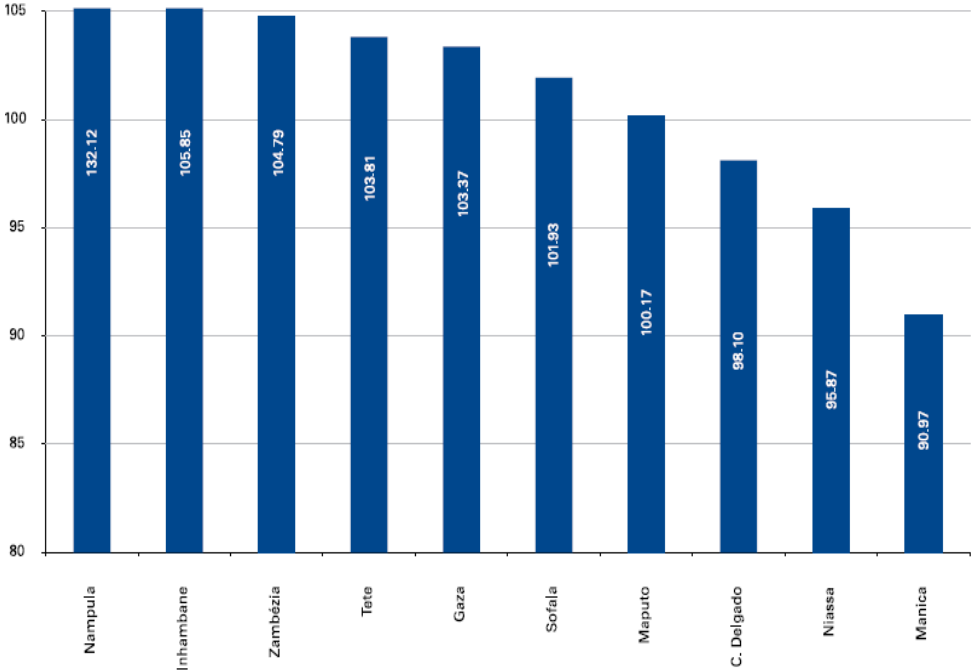
Predominance of the informal sector. Maputo-based businesses surveyed for the 2008 ICA identified competition from the informal sector as the top constraint to their operations. Informality often results from the decision to balance costs against the benefits of registration. Due to their small size,

microenterprises may find that using informal arrangements for accessing inputs is more efficient than having to pay the costs of regulatory compliance. There is also considerable evidence that the varying incidence of informality found across countries with similar levels of per capita income is linked not only to the nature of business regulations, but also to the quality of governance.

The scope for action ranges from policies to encourage entry into the formal sector (including taxation and labor policies) to the governance agenda—that is, strengthening institutions and the rule of law, and confronting crime and violence. Since informality prevails among smaller firms, policies to improve the business environment for SMEs are particularly important. Interventions should prioritize improved productivity, which contributes to higher formality rates among underperforming enterprises.

Business Confidence Index. Another gauge of the business environment is the Business Confidence Index, an annual survey of the private sector in Mozambique prepared by KPMG. The last survey was completed in early 2009; it covered 938 firms across 10 sectors in all 10 provinces, and analyzed 41 indicators along 7 economic factors to gauge business perceptions. The survey results indicate that bureaucracy, corruption, and crime levels are perceived as the biggest constraints to private sector activity in the country. Other major impediments include the trade regime—the impact of illegal imports and export barriers—as well as the impact of diseases on labor productivity. There were positive perceptions of infrastructure services, confirming the ICA findings on the progress in this area, with postal, communications, and electricity and water supply receiving the best ratings. Surprisingly, however, Maputo ranked sixth out of ten provinces despite its relative advantages.

**Figure 18. Ranking of Business Confidence Index by Province**



Source: Business Confidence Index, 2009, KPMG.



These results confirm that, notwithstanding Maputo's progress, businesses in the province continue to suffer from numerous constraints to growth. It could also be that businesses in Maputo are more demanding, whereas in other provinces that have witnessed recent growth (such as Nampula, Inhambane, and Tete), the outlook seems more favorable. The top five negative factors cited by businesses surveyed in Maputo were: (i) HIV/Aids, malaria, and other diseases; (ii) illegal imports; (iii) corruption; (iv) organized crime; and (v) high incidence of crime. The issues related to HIV speak to the need for better health services as well as employer awareness of these issues. Crime has caused many businesses to adopt expensive security measures. Constraints from illegal imports reflect on the whole customs and trade logistics regime, as discussed above; this is particularly pertinent to the Maputo Corridor given its potential role as a gateway for exports. Corruption is an indication of the continued challenges businesses face in dealing with government, and is a disincentive for them to become formal or to expand and become more visible to authorities.

## 5. Access to Infrastructure

The long war years devastated Mozambique's infrastructure. Most bridges and roads were mined, and railroad and power transmission were heavily damaged. Land communications between the south and the center of the country were completely destroyed. After more than 15 years of reconstruction, Mozambique's infrastructure again approaches the level of its regional competitors; yet it still represents a significant portion of business costs. The ICA revealed vast infrastructure disparities between Maputo and the other provinces:

Power. In the 2003 ICA survey, more than 60 percent of firms in Mozambique thought that electricity was a major constraint to business performance, second only to the cost of and access to financial services. In the 2008 ICA, however, only 21 percent of the firms surveyed in Mozambique now consider electricity to be among the top three obstacles to business. This is the result of the extensive reform efforts over the past ten years. But perceptions about electricity are unequal across firms—large firms outside Maputo seem particularly constrained by the quality and reliability of electricity services. Losses due to inadequate provision are also mixed across firms. Average losses in regions outside Maputo are twice as high as in the capital, reaching 8 percent of total sales. The results of the ICA surveys reflect progress in the sector but expose some continued weaknesses, in particular in rural and peri-urban areas outside the capital region though there are continued challenges in Maputo.

Transport. Despite reforms in the transport sector, perceptions have changed little since the 2003 survey. Larger firms and firms outside Maputo continue to be more constrained by transportation problems, with 60 percent of firms outside Maputo reporting that roads are not of suitable quality, compared to 50 percent in Maputo. More starkly, the direct costs of transport as a percentage of sales are less than 0.5 percent in Maputo, compared to more than 7 percent in the other regions. While these figures show that Maputo is relatively more advanced than other regions of the country, from the perspective of South African businesses wanting to use the Maputo Corridor, transport infrastructure remains a major bottleneck compared with infrastructure in South Africa.

## 6. Customs and Trade Facilitation

Since the end of the civil war, Mozambique has reduced drastically the number and level of tariffs. The Government also adopted a new Customs Code and invested heavily in improving capacity, management, and transparency in customs operations. However, Mozambican customs are still relatively slow and inefficient. According to the *Doing Business 2010* report an average firm might take up to 23 days to export a product. Firms also face import delays for machines and materials. An imported input requires 30 days to clear customs in Maputo and even more time in other regions. Easy access to input and output markets is a fundamental determinant of international competitiveness. High transportation cost, losses, and delays explain why Mozambique still has one of the lowest shares of export sales in the ICA comparison group (which include Angola, Malawi, South Africa, Zambia, and Vietnam). According to the 2008 ICA, Mozambican firms export only 2 percent of total sales—one-fifth of the average for the region.

In addition to the *Doing Business* report and ICA data, the Logistics Performance Index (LPI)<sup>132</sup> is another measure of trade logistics. It is based on a worldwide survey of operators (global freight forwarders and express carriers) that provide feedback on the logistics “friendliness” of the countries in which they operate. Mozambique’s LPI Rank for 2010 was 136 out of 155, indicating significant perceived bottlenecks compared to other countries—even other sub-Saharan African countries. This perception has a direct bearing on the Maputo Corridor’s potential as a gateway for exports from both Mozambique and neighboring regions in South Africa.

## E. RECOMMENDATIONS

Maximizing benefits from the Maputo Corridor and its spillover effects will require improving institutional arrangements and coordination; tackling key investment climate constraints; promoting linkages; and addressing the main infrastructure and logistics bottlenecks. These recommendations should be viewed as part of an integrated approach to realizing the full growth potential of the Maputo Corridor.

### 1. Institutional Capacity Building

The governments of Mozambique and South Africa should formally recognize MCLI as the main forum for consultation with the private sector for development of the Maputo Corridor. At the same time, a high-level Government task force should be established to develop and implement corridor development plans. The task force could be led by the President’s or Prime Minister’s Office and could bring together and create synergies among the key ministries involved; e.g., Industry and Trade, Finance, Planning and Development, Transport, Energy, and Labor. A separate working committee would include representatives from the agencies most engaged in corridor development, including CPI, the Institute of Export Promotion (IPEX), the Center for the Promotion of Commercial Agriculture (CEPAGRE), and Customs and Tax Authority (ATM). The high-level task force would be empowered to tackle coordination issues when they arise, and to provide direction and decision making, while the working committee would oversee and support the implementation of key initiatives.

## 2. Business Environment

As noted above, the Government has a five-year strategy and action plan for business environment reforms. What is needed is the commitment to carry out the planned reforms and implement them in a timely manner. The inter-ministerial committee on removal of administrative reforms should be further empowered, and all ministries (not just the Ministry of Industry and Commerce) should adopt the business environment reform agenda as a priority.

Customs and trade logistics reform is particularly important for development of the Maputo Corridor. Needed reforms include the introduction of risk-based scanning at the Maputo Port and other crossings; reduction of the paperwork and steps involved in import and export; and publication of the fees and timeline involved in trade transactions, in order to reduce opportunities for corruption and delays.

To spur SME development along the corridor, the licensing and inspection regime for business start-ups needs to be simplified. A consultative process with businesses should be established to identify licenses that can be eliminated, those that can be streamlined, and those that are necessary but can be delivered in a more cost-effective and transparent fashion.

Another key issue is the launch of the One-Stop Border Post to facilitate and streamline trade and passenger flows along the corridor. The establishment of the integrated OSBP will require investments in infrastructure, information technology systems, streamlining of procedures, training of personnel on both sides of the border, and political-level decisions on visa and entry protocols for goods and passengers. These issues are complex, and renewed commitment at the highest level is needed to finally establish the one-stop border post. Its implementation will need to be followed by a high-level task force, as proposed in the previous section, to work in concert with the Maputo Corridor Logistics Initiative and the Government of South Africa.

While the Beluluane Industrial Park has enjoyed some success, it is still not realizing its full potential and this is even more the case of the larger Matola Industrial Zone area. A detailed analysis of the needs for further development of the Matola Industrial Zone and the Beluluane Park are beyond the scope of this study. It is clear, however, that the development of an industrial zone strategy is critical for Matola, with the first step being a review of lessons learned from the Beluluane experience.

## 3. Linkages

The Government's second Poverty Reduction Strategy, including its strategy of attracting megaprojects, has the explicit goal of job creation. To date, however, the capital intensity of the country's megaprojects has limited their impact on employment and growth—Mozal, Sasol, and Cahora Bassa combined are projected to contribute less than 2 percent of urban private sector employment. Experience in both Mozambique and in other countries suggests, however, that there are ways in which national business linkages and associated employment generation can be encouraged. A 2008 report financed by the Bank (Resolve Group 2008),<sup>133</sup> for example, provides a framework for megaprojects to invest in technical and vocational training to ensure that educational institutes are graduating candidates whose skills are compatible with market needs. For the Maputo Corridor, there is a need for skills development in key sectors such as tourism, transport logistics, construction, engineering, and agribusiness. To spur SME

development, the investment climate constraints discussed in the previous section will also need to be addressed.

#### **4. Infrastructure and Logistics**

While there have been tremendous improvements in Maputo's infrastructure since the end of the war, and the province is well ahead of the rest of the country in terms of transport, power, and telecommunications infrastructure, there is still room for much improvement. This is especially the case for the Maputo Corridor, where the competition is not other regions in Mozambique, but South Africa with its mature infrastructure networks and world-class ports. Therefore, in order for Maputo to realize the full benefits from the corridor and to be able to handle the potential business from South Africa, the following needs to occur:

- Maputo and Matola ports. Expand capacity to handle large vessels; upgrade the computer information system and link with customs and border agencies; improve efficiency; streamline scanning fee.
- Railways. Add more railway capacity, increase operating hours, and improve maintenance.
- Power. Address the chronic water shortage in the province, and ensure continuous availability of electricity to all large enterprises and SMEs.

The private sector should take the lead in the financing, design, implementation, and management of these infrastructure improvements, with Government providing a conducive legal framework through appropriate PPP regulations.

Other priority actions include:

- Strengthening the role of the MCLI in addressing logistics challenges.
- Empowering the inter-ministerial committee on removal of administrative barriers and accelerating the reform process, including implementing the comprehensive licensing reform program.
- Undertaking trade facilitation reforms.
- Expediting implementation of the one-stop border post.
- Developing a strategy for the Matola Industrial Zone, based on the experience of the Beluluane Industrial Park.



## ANNEX A. LIST OF STAKEHOLDER MEETINGS: MAPUTO, NACALA AND TETE, 5-16 DECEMBER 2009, AND IN BEIRA, 4-5 FEBRUARY 2010

ACIS	Carrie Fischer	
	Dr. Carlos Henriques	Vice-President of the ACIS Management Committee
Associação Comercial da Beira	Prakash Prehlad	President
AVIAM	Stéphane Derweduwen	Manager
Camargo-Correa and Hydroelectrica de Mphanda Nkuwa SA	Alexandre Ribeiro Ferreira,	Executive Administrator
Cimpogest	Gerry S. Marketos	Managing Partner
CINAC	Patrice Manuel	
Complexo Libula	Ian Kingsley	Owner
Cornelder	Felix Machado	Corporate Relations Manager
Corredor de Desenvolvimento do Norte (CDN)	André Couto	Lawyer
CPI: Investment Promotion Centre	Victor Tivane	Investment Senior Officer
	Sara Taibo	Head of Linkages
	Emiliano Bento Américo	Delegate Economist
CPMZ pipeline	Dr. Carlos Henriques	General Manager
CTA Beira	Armando Cardoso	Vice-President
	Charles Chichone	Assistant to the Central Region
CTA Nampula	Ekan	
Danida	Ellen Warming	Tete Province Health Advisor
Embassy of Brazil	Nei Futuro Bitencourt	Ministro-Conselheiro
Embassy of Norway	Carlos Rafa Mate	Programme Officer
Gabinete do Plano de Desenvolvimento da Região do Zambeze (GPZ)	Sergio Vieira	Director General
	Rita Maria Bruno David	Directora Adjunta do Secretariado Geral
GAZEDA	Danilo Nalá	General Director
	Judite Massamba Chamba	
Governor of Tete Province	Ilde Afonso Mwanantata	Former Governor of Tete Province
GTZ	Willy Parlmeyer	Project Manager
IFC	Chabir Hassam	Advisory Services Coordinator
Insitec	Jiva Remtula	Administrador
IPEME	Madina Ismail	Coordinator of Rural Development Projects
IPEX : Mozambique Institute of Export Promotion	Jose Fernando Jossias	Director General
	José Correia Agapito	
JICA	Harumi Maruyama	Advisor – Formulation of Projects
Millennium Challenge Corp.	Cassia Carvalho-Pacheco	Resident Country Manager
	Herminio Malate	Infrastructure Specialist

Minas Moatize	Augusto Antunes	Director Geral
Ministry of Planning and Development	Adriano Ubisse	National Director of Investment and Planning
Municipality of Nacala	Buana Ali	Head of Social Development
	Flora Goncalves Chele	Habitat Management
Municipality of Tete, Vereador das Financas	Arnaldo	Economist
	Miguel Xadrique	
	Ms Lina	Secretary of President
Prio	Paul Duque	
	Vasco Nunes	
Rio Tinto	Kuda Muchenje	Country Manager
Riversdale Mining	Anthony Martin	
	Jennifer Garvey	Legal Manager
	Charlotte Allen	Consultant
	Leon Fanoé	General Manager
	Custódio Judiao	
	David West	Principal Geologist
	Martin Wills	Manager Human Resources
SANAL	Eugene Matekiti	Factory Manager
TCT Dalmann	Graeme White	Director
Transafrica, Lda	Paulo Faia	Manager
UCODIN	Felicidade Muiocha	Governor's Office Nampula
USAID	Robert Layng	Tourism and Biodiversity Manager, Mission Environment Officer
Vale	Adriano Ramos	Communications & Social Development Manager
	Pedro Muendae	Communications & Social Development
	Reinaldo Goncalves Junior	Mine Implementation Coordinator
	João Sichieri	Corporate Finance Manager
WFP (Beira)	Nicolas Brule	Logistics Officer
World Bank	Boris E. Utria	Sector Leader, Sustainable Development Department
	Antonio Nucifora	Senior Economist
	José Chembeze	Transport Specialist
	Patrick Verrissimo	Senior Sector Economist
Yara	Sean de Cleene	Vice President, Global Business Development & Public Affairs
	B P Shine Kumar	Technical Manager

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- <sup>3</sup> Nelson and Behar (2008).
- <sup>4</sup> Deichmann et al (2008).
- <sup>5</sup> Lall and Mengistae (2005); Deichmann et al. (2005).
- <sup>6</sup> Rogerson (2001).
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- <sup>16</sup> Ibid.
- <sup>17</sup> [www.riversdalemining.com.au/content/view/1/2/](http://www.riversdalemining.com.au/content/view/1/2/).
- <sup>18</sup> CSN, a Brazilian steelmaker, bought a 16.3 percent stake in Riversdale in December 2009.
- <sup>19</sup> [www.riversdalemining.com/](http://www.riversdalemining.com/)
- <sup>20</sup> [http://portal.eiu.com.libproxy-wb.imf.org/report\\_dl.asp?issue\\_id=103114595&mode=pdf](http://portal.eiu.com.libproxy-wb.imf.org/report_dl.asp?issue_id=103114595&mode=pdf) and [siteresources.worldbank.org/.../PPP\\_linkages\\_Moz\\_Beira\\_Rail\\_Concession\\_Case\\_Study.ppt](http://siteresources.worldbank.org/.../PPP_linkages_Moz_Beira_Rail_Concession_Case_Study.ppt)
- <sup>21</sup> <http://ports.co.za/beira.php>.
- <sup>22</sup> See the JICA Annual Report 2008.
- <sup>23</sup> IFC is considering an investment in a pan-African infrastructure fund that would invest in the Nacala railway line.
- <sup>24</sup> [www.portodenacala.co.mz/eng/index.php](http://www.portodenacala.co.mz/eng/index.php)
- <sup>25</sup> [http://portal.eiu.com.libproxy-wb.imf.org/report\\_dl.asp?issue\\_id=103114595&mode=pdf](http://portal.eiu.com.libproxy-wb.imf.org/report_dl.asp?issue_id=103114595&mode=pdf)
- <sup>26</sup> MagEnergy is based in South Africa and a subsidiary of Magindustries Corp. Magindustries was established in 1997 and its head office is located in Toronto, Canada, while its activities are focused in Central Africa, in particular Republic of Congo and Democratic Republic of Congo.
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<sup>29</sup> The company has been granted access to Mozambique’s existing power transmission network, which currently has a capacity of 2,200 MW. 125 MW are generated by the Mozambican electricity authority Electricidade de Moçambique (EDM) and 2,075 MW are generated by HCB.

<sup>30</sup> [www.mcc.gov/mcc/bm.doc/qsr-imp-mozambique.pdf](http://www.mcc.gov/mcc/bm.doc/qsr-imp-mozambique.pdf)

<sup>31</sup> World Bank (2009), *Reshaping Growth and Creating Jobs through Trade and Regional Integration*, Mozambique Country Economic Memorandum (March, 2009).

<sup>32</sup> [www.doingbusiness.org/ExploreEconomies/?economyid=133](http://www.doingbusiness.org/ExploreEconomies/?economyid=133)

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<sup>35</sup> See the JICA Annual Report 2008.

<sup>36</sup> World Bank (2007), “Implementation Completion and Results Report on a Credit in the Amount of SDR 13.5 Million to the Republic of Mozambique for a Mineral Resources Management Capacity Building Project”, December 20, 2007, COCPO, Report No. ICR0000630.

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<sup>39</sup> [www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/02/18/000334955\\_20100218013141/Rendered/PDF/509930PAD0P111101Official0Use0Only1.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/02/18/000334955_20100218013141/Rendered/PDF/509930PAD0P111101Official0Use0Only1.pdf)

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<sup>42</sup> World Bank (2010), Report No: 52204-MZ, PAD on a proposed Credit in the Amount of SDR 49.7 Million (USUS\$80 Million Equivalent) to the Republic of Mozambique for an Energy Development and Access Project (APL-2), January 6, 2010.

<sup>43</sup> Also, in July 2007 the Bank’s board approved the Southern African Power Market Program: Mozambique-Malawi Transmission Interconnection Project (APL-2). An IDA loan agreement of ~US\$90 million would support the construction of a power line between Mozambique and Malawi—although the Malawian counterpart has yet to sign the agreement (there has been virtually no disbursement until date). Many of the planned power projects in Tete depend on power purchase agreements being reached with energy companies in neighboring countries.

<sup>44</sup> [www.clubofmozambique.com/solutions1/sectionnews.php?secao=mining&id=18248&tipo=one](http://www.clubofmozambique.com/solutions1/sectionnews.php?secao=mining&id=18248&tipo=one).

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<sup>50</sup> Ibid.

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- <sup>58</sup> In 2007, Millennium Challenge Corporation conducted a pre-feasibility study to assess the viability of a Free Trade Zone in Nacala, Mozambique. While recognizing the potential of the region, it raised questions regarding investor interest in the development.
- <sup>59</sup> [www.bloomberg.com/apps/news?pid=20601116&sid=a8N4RmX1LHa4](http://www.bloomberg.com/apps/news?pid=20601116&sid=a8N4RmX1LHa4)
- <sup>60</sup> Nacala Special Economic Zone Government Presentation
- <sup>61</sup> USAID (2009), Mozambique Country Program
- <sup>62</sup> Ibid.
- <sup>63</sup> Millennium Challenge Corporation (2009), “Building a Dynamic Partnership for Poverty Reduction Through Economic Corporation”
- <sup>64</sup> World Bank (2009), *Reshaping Growth and Creating Jobs through Trade and Regional Integration*, Mozambique Country Economic Memorandum (March, 2009).
- <sup>65</sup> Ibid.
- <sup>66</sup> [www.clubofmozambique.com/solutions1/sectionnews.php?secao=business&id=16315&tipo=one](http://www.clubofmozambique.com/solutions1/sectionnews.php?secao=business&id=16315&tipo=one)
- <sup>67</sup> Ibid.
- <sup>68</sup> Mozambique Business, 1176 October 2009, <http://www.cpi.co.mz/index.php/subscribe>
- <sup>69</sup> Nacala airfield was not designed for commercial traffic, conversion to civil use will require the construction of air navigational aids, a new passenger terminal and cargo facilities, among others. <http://allafrica.com/stories/200909141522.html>.
- <sup>70</sup> MCA Feasibility Study.
- <sup>71</sup> [www.poptel.org.uk/mozambique-news/newsletter/aim378.html#story8](http://www.poptel.org.uk/mozambique-news/newsletter/aim378.html#story8).
- <sup>72</sup> USAID (2006) “Mozambique Food Security Programming Framework FY 2008-2012”
- <sup>73</sup> European Commission (2009), “Mozambique Rural Development Sector Policy Support Programme,” BFC1-276 / 2009 / 200 914 - Version 2, September 2009.
- <sup>74</sup> Plano Estratégico de Desenvolvimento da Província de Nampula, 2010–2020.
- <sup>75</sup> World Trade Organization (2008), Mozambique Trade Policy Review, WTR/TPR/S/209.
- <sup>76</sup> Ibid.
- <sup>77</sup> Plano Estratégico de Desenvolvimento da Província de Nampula, 2010 - 2020
- <sup>78</sup> World Bank (2009), *Reshaping Growth and Creating Jobs through Trade and Regional Integration*, Mozambique Country Economic Memorandum (March, 2009).
- <sup>79</sup> IMF (2009), “Fifth Review Under the Policy Support Instrument, First Review Under the Twelve Month Arrangement Under the Exogenous Shock Facility, An Request for Modification of Assessment/Performance Criteria”
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- <sup>81</sup> World Bank (2009), “Mozambique Investment Climate Assessment 2009: Sustaining and Broadening Growth,” Africa Finance and Private Sector, (October 2009).

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- <sup>86</sup> European Commission (2009), “Mozambique Rural Development Sector Policy Support Programme,” BFC1-276 / 2009 / 200 914 - Version 2, September 2009
- <sup>87</sup> World Bank (2009), *Reshaping Growth and Creating Jobs through Trade and Regional Integration*, Mozambique Country Economic Memorandum (March, 2009).
- <sup>88</sup> NEPAD (2008), “Regional Business Case”
- <sup>89</sup> European Commission (2009), “Mozambique Rural Development Sector Policy Support Programme,” BFC1-276 / 2009 / 200 914 - Version 2, September 2009
- <sup>90</sup> USAID (2009), Mozambique Country Program, “Trade and Business”
- <sup>91</sup> European Commission (2009), “Mozambique Rural Development Sector Policy Support Programme,” BFC1-276 / 2009 / 200 914 - Version 2, September 2009.
- <sup>92</sup> In early September 2009, the authorities signed a four-party framework agreement for a €300 million credit line to help finance infrastructure investment. Contractual partners include the governments of Mozambique and Portugal, the Portuguese savings bank (CGD), and a local bank (BCI). The agreement allows for the extension of external loans to BCI and on-lending of these funds to a domestic public entity to finance road infrastructure.
- <sup>93</sup> Mozambique Ministry of Education and Culture (2008), “Education Statistics: Annual School Results – 2008”, August 2009.
- <sup>94</sup> The Ministry of Agriculture defines the Beira corridor as Sofala, Manica, Tete and Zambezia Provinces – presentation at Inaugural BAGC partnership meeting on the 20<sup>th</sup> January Hotel Avenida.
- <sup>95</sup> National Institute of Statistics, 2005 figures.
- <sup>96</sup> National Institute of Statistics, 2007 figures.
- <sup>97</sup> ADA (2005) Assessment of the Business Environment and Business Opportunities in Mozambique and Sofala.
- <sup>98</sup> The Beira Agricultural Growth Corridor (2009) Concept Note
- <sup>99</sup> Ibid.
- <sup>100</sup> ADA (2005) Assessment of the Business Environment and Business Opportunities in Mozambique and Sofala p.32
- <sup>101</sup> Ibid.
- <sup>102</sup> The Beira Agricultural Growth Corridor (2009) Concept Note
- <sup>103</sup> Sugar expansion and modernization at Mafambisse’ AIM 9 December 2008 and “Mozambique to earn USD 95 million from sugar exports” Afrol news 16 September 2008
- <sup>104</sup> [www.mocfer.com](http://www.mocfer.com)
- <sup>105</sup> The Beira Agricultural Growth Corridor (2009) Concept Note
- <sup>106</sup> [www.gorangosa.net](http://www.gorangosa.net)
- <sup>107</sup> [www.allafrica.com/stories/200807160900.html](http://www.allafrica.com/stories/200807160900.html)
- <sup>108</sup> CPI presentation 2009 at the US trade and investment conference, Maputo
- <sup>109</sup> [www.agriterra-ltd.com/projects/DECA](http://www.agriterra-ltd.com/projects/DECA)
- <sup>110</sup> [www.ports.zo.za/beira.php](http://www.ports.zo.za/beira.php)

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- <sup>111</sup> The Beira Agricultural Growth Corridor (2009) Concept Note
- <sup>112</sup> Noticias 25/01/2010 p.15.
- <sup>113</sup> Conversations with Cornelders, February 2010.
- <sup>114</sup> [www.entwicklung.at/en/countries-and-regions/southern-africa/mozambique.html](http://www.entwicklung.at/en/countries-and-regions/southern-africa/mozambique.html)
- <sup>115</sup> Pungwe II Programme Proposal December 2006 SIDA
- <sup>116</sup> Group Discussion during Inaugural Beira Agricultural Growth Corridor Partnership meeting 20/01/2010
- <sup>117</sup> ADA (2005) Assessment of the Business Environment and Business Opportunities in Mozambique and Sofala p.31
- <sup>118</sup> ICA 2003 p.53-58
- <sup>119</sup> Information gathered during field mission February 2010
- <sup>120</sup> World Bank (2009), ICA, Comparative countries: Angola, Malawi, South Africa, Zambia, Thailand and Vietnam.
- <sup>121</sup> COREP (2008) ‘Skills for work’ A framework to guide Mega project investments in TVET p.6
- <sup>122</sup> Chiquita (2010) Port Comparisons – 40ft High Cube Reefers.
- <sup>123</sup> Conversations with WFP 15/02/2010.
- <sup>124</sup> Interviews with stakeholders in Beira 4-5/02/2010.
- <sup>125</sup> World Bank (2007) “Beating the Odds: Sustaining inclusion in a growing economy: A Mozambique Poverty, Gender and Social Assessment”.
- <sup>126</sup> ADA (2005) Assessment of the Business Environment and Business Opportunities in Mozambique and Sofala
- <sup>127</sup> <http://web.worldbank.org/WBSITE/EXTERNAL/EXTMODEL/SITE/EXTCOUNTRYMODEL/0,,contentMDK:22019702~pagePK:141137~piPK:141127~theSitePK:223224,00.html>
- <sup>128</sup> Mozal Annual Reports.
- <sup>129</sup> Nathan Associates (2007), “Maputo Corridor Performance Assessment: A Transport Logistics Diagnostic Tool Study”, prepared for USAID, March 2007.
- <sup>130</sup> This section draws on the information from the Maputo Corridor Logistics Initiative (<http://www.mcli.co.za>)
- <sup>131</sup> For more information: [www.mcli.co.za](http://www.mcli.co.za)
- <sup>132</sup> Logistics Performance Index (LPI) is the weighted average of the country scores on the six key dimensions: (i) Efficiency of the clearance process (i.e., speed, simplicity, and predictability of formalities) by border control agencies, including Customs; (ii) Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology); (iii) Ease of arranging competitively priced shipments; (iv) Competence and quality of logistics services (e.g., transport operators, customs brokers); (v) Ability to track and trace consignments; (vi) Timeliness of shipments in reaching destination within the scheduled or expected delivery time.
- <sup>133</sup> Resolve Group (2008), “Skills for Work: A framework to guide mega-project investments in TVET”, October 2008.