ETC International Study Commissioned by the NDCSDI

NACALA DEVELOPMENT CONFERENCE

27-28TH FEBRUARY 2003

THE NACALA DEVELOPMENT CORRIDOR: STRATEGIC SOCIO-ECONOMIC DEVELOPMENT PERSPECTIVE

Prepared by

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Maputo
February 2003

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EXECUTIVE SUMMARY

Statement of the problem

The ultimate goal of this study is to provide a single document that presents an integrated overview and assessment of the most important strategic socio-economic issues and trends that provide the backdrop for the Nacala Development Corridor (NDC) initiative, one of the three main transport corridors through Mozambique.

Mozambique's geographical location makes it a natural and economical regional transport and service centre to its neighbouring hinterland countries. Its long extension for a distance, as the crow flies, of 2.515 kilometres, and the tendency of the population to settle along the coastal area, make the planning process of a domestic surface transport system more difficult to develop in the north-south direction than the east-west direction. While the country's ports and railways serve chiefly the regional demand, the road system serves internal trade and access to the costal ports.

What is required at present ...

... is a single document that provides an integrated overview and assessment of the most important strategic socio-economic issues and trends that provide the backdrop for the Nacala development Corridor initiative

Undoubtedly, the major demand on Mozambican's rail and port services is from the east-west traffic. Historically, this sector used to play a key economic role not only in the country's public rail, road and port handling, but in the national economy as a whole. At the time of independence in 1975 Mozambique earned more than a quarter of all foreign currency earnings from international transport services. However, the insecurity situation until earlier in the 1990s, combined with poor management of the transport network, had reduced Mozambique's comparative advantage and the country now faces a major challenge to revive its role as a gateway to southern Africa.

As this study shows, the issue of national lack of productivity is serious and worrying. With current levels of overall productivity, Mozambicans, Malawians and Zambians will never attain regional, to say nothing about international, average living standards. This particular aspect is made clear

in the study by briefly analysing the state of the economies comprising the NDC countries benchmarked against a country, in the Southern African Development Community (SADC) region itself, that is Botswana, which has shown for almost four decades the fastest sustainable growth in the world and is also currently rated Africa's freest economy in the annual report of the *2002 & 2003 Index of Economic Freedom*.

It is in productivity that the key to improving living standards of Mozambicans, in particular, and those of remaining NCD countries in general, needs to be found, the key to reducing international dependence and absolute poverty, as well as the gap between the NDC countries' living standards as compared to the regional and international ones.

In this context, instead of simply attempting to establish "what is" the situation of the NDC region, the present report tries to determine, whenever possible quantitatively, "what can be" the NDC region, depending on the efforts and resources put into or invested in the next two or three decades.

The issue at stake is HOW?...

... not so much whether or not, can Mozambique attract traffic back to its transport network and revive its leading role as a gateway to southern Africa!

In short, the report provides the following main findings, conclusions and recommendations:

Main findings and conclusions

1. The report provides **a snapshot of the economic state and performance in the NDC region benchmarks against the SADC region as a whole** and some of its individual countries, in particular. The inbuilt imbalances between the NDC countries and the 14-SADC are striking:
    - About 21% of the population in South Africa produces around 70% of the whole SADC region's Gross Domestic Product (GDP). The South African's economy is about 2.3 times bigger than the economy of the "Rest" of the SADC region.
    - Botswana, with a population similar to the population of Maputo and Matola cities, produces 1.5 times than the whole Mozambique and 5 times more than Maputo City. The 3-NDC countries taken together produce about 7%t of South African's

GDP, but their populations represents 90%t of South Africa's population.

2. **On the dimension of the economic development effort the NDC region will have to undertake in the next quarter of a century**:

   - *How fast will the NDC region has to grow merely to prevent the absolute per capita GDP gap in relation, for instance to Botswana, being any wider in the year 2025 than now?* The report shows, assuming that Botswana's per capita GDP will continue to grow in the next three decades at an annual average rate of 4%, that the NDC region will have to grow at an average real growth rate of 14% per annum. This is a remarkable and, under the present circumstances in the NDC economies, hardly feasible growth rate.
   - An even more difficult task is the one associated with a much more ambitious target set out by the following question mark: *how fast will the NDC region has to grow for their real per capita GDP to be equalised by the year 2025?* The short answer to this question is: If Botswana maintains its 4% annual growth rate, the NDC region would have to grow at about a real growth rate of 16% annually to be equalised to that country by the year 2025.

3. **The dimension of the NDC region in terms of area coverage, population size and economic contribution to the GDP and living standards.**

   - The Table SumExec1 summarizes the geographical and demographic size of the NDC region, estimated that overall it covers an area of about 552 thousand square kilometres and an estimated population of about 20 million inhabitants in the year 2002.
   - In relation to Malawi the NDC region comprises about 71 thousand square kilometres and 9.4 million inhabitants. In Mozambique, the NDC region comprises part of the northern provinces of Niassa, Nampula and Zambezia, covering about 116 thousand square kilometres and 3.9 million inhabitants. Finally, the Zambian provinces likely to be associated with the NDC cover about 364 thousand square kilometres and y million inhabitants.

Table SumExec1: Summary of the NDC's Geographical and Demographic Size, 2002									
Country/ Province	**Land Area**	**Total Population**	**Population Density**	**Percentual distribution**					
	Sq. km	**(1000 inha.)**	**Inhabitants. /sq. km**	**Land Area**	**Population**				
Malawi	94.276	10.742	113	100%	100%				
Malawi (NDC provinces)	**70.785**	**9.370**	**139**	**75%**	**87%**				
Mozambique	799.380	18.083	23						
Northern Region of Mozambique	293.303	5.852	20	37%	32%	20	37%	32%	
Mozambique (NDC provinces)	**116.427**	**3.893**	**34**	**15%**	**22%**				
Zambia	752.614	10.764	14	100%	100%				
Zambia (NDC provinces)	**364.364**	**7.122**	**12**	**48%**	**66%**				
Total (NDC countries)	1.646.270	39.589							
Total (NDC provinces)	**551.576**	**20.385**		**34%**	**51%**				

- Table SumExec2 summarizes the estimated economic weight of the NDC region in the overall GDP of the three NDC countries. This is a first approximation, but if the estimate provided in this study is accurate the total weight of the NDC region amounts to 40-50% of the three countries' joint GDP.
- Of course, one cannot immediately conclude that the significant weight of the NDC region in the GDP is, or will immediately be channelled through the Nacala Corridor. However, if the infrastructures of the Nacala Corridor were improved and become more competitive, a significantly higher proportion of the US$3.6 to US$4 billion wealth produced in the NDC region may eventually be channelled through the Nacala Corridor.

Table SumeExec2: Estimating the NDC's Economic Contribution to the GDP of 3 Countries in 2000			
	Range of Per capita GDP (in US$)	**Estimated GDP of the NDC (in Million US$)**	**Weight of NDC in the GDP of the 3 Countries**
Malawi (national average)	160-180	1.400-1.600	80-95%
Mozambique (northern region)	110-140	430-550	10-15%
Zambia	260-280	1.800-2.000	55-60%
Total Weight of the NDC	**177-200**	**3.600-4.150**	**40%-50%**

4. Nacala Corridor within a longer perspective: 2001 versus 1973

- The literature and data available show that the **traffic in the main ports of Mozambique is on its way up,** after recovering the domestic and international traffic that connects landlocked neighbouring countries to the Indian Ocean ports with short and cheap routes that civil war once made impassable. Overall, gross traffic was about 7.3 million tones in the year 2001. When one compares the long-term traffic trends, the total traffic in 2001 represents about 60% of the traffic in 1973, due mainly to the still very low contribution of international traffic. The domestic traffic in the years 2000 and 2001, when compared to the year 1973, was 141% and 154%, respectively. This very positive trend of the domestic traffic contrasts with the low level of international traffic,

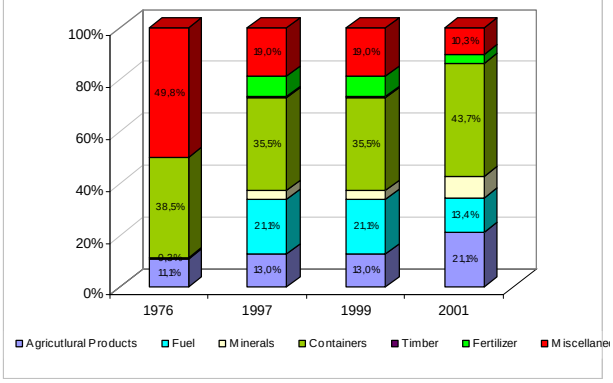
Table SumExec3: The Railways Corridor in the NDC

The railway lines of the NACALA corridor are:

- The Nacala – Cuamba – Entre-Lagos line, 610km, to the border of Malawi, fully rehabilitated in 1996
- The Cuamba – Lichinga Line, 262km
- The Lumbo – Monapo line, 42km, not operational

Mozambique, Malawi and Zambia have joined forces on a US$ 24 million project for the Nacala development Corridor, which include the rehabilitation of 77km of railway line from Malawi to Entre Lagos in Mozambique, the construction of a bridge at Chiromo, and the extension of the railway line from Mchinji to Chipata in Zambia.

Gragh 4.8: Composition of Cargo handled in the Nacala Port



which represented 36% and 43% of the 1973 level, respectively in 2000 and 2001.

- One can imagine what should be the level of the international traffic handled in the Mozambican ports if they had recovered the weight reached in 1973, that is 95% of the total handled goods. If the international weight distribution of the traffic flows today were as the one in 1973, when the domestic traffic represented only 5%, then in 2001 the international handled goods should be around 28,900 tones. Since the international traffic was still 7,500 tones in 2001, this represents 43% of the level reached in 1973 and about 25% of what it would be if had grown as fast as the domestic traffic in the period 1995-2001.
- **The Nacala port handled 743,300 tones in the year 2001**, that is 10% of the total traffic in the three main ports of Mozambique and about the same tonnage as in 1973. However, the structure of the traffic is very different. While in 2001 about 63% represents domestic traffic in 1973 the domestic traffic was only 40% while the remaining was international traffic. The current domestic traffic is 148% higher than the 1973, but the international traffic is about 58% of three decades ago. They have both grown substantially between 1997 and 2001, but when one recalls that in 1973 the contribution of Nacala port to the global traffic was 38% one can have an idea of the potential to still grow. Of course, this is a comparison with past experience, while the future will depend very much on the new opportunities that emerge.

How far is Mozambique from recovering its leading role as a gateway to Southern Africa?

- The governments of Mozambique, Malawi and Zambia are trying to tempt investors to buy into a development corridor that stretches from the Mozambican port of Nacala to eastern Zambia. The three governments, supported by South Africa, will hold a two-day investment conference in Nacala starting on February 27, 2003. As this study shows all three countries are in much need of development funds, but even more importantly this study shows substantial potentials to explore the opportunities offered by the Nacala Port.
- Table SumExec4 summarizes the amount of traffic that is currently channelled to ports located too far way from the supply

sources as compared to Nacala port. About 55% of the imports and exports from Malawi and Zambia are channelled through Durban/East London and Beira ports. What should be done to attract this traffic to the Nacala port?

- The issue at stake in this study has been how, not so much whether or not, can Mozambique attract traffic back to its transport network and revive its leading role as a gateway to southern Africa. In principle, the answer to this issue is straightforward. That is, Mozambique can regain its principal role as a gateway to the neighbouring hinterland countries by restoring its run-down ports, overgrown roads and worn-out rail links, as well as restructuring customs clearance. In other words, by recovering Mozambique's lost competitive advantages, through efficiency and productivity.

Table SumExec4: Origin and Destination for SADC Ports of Traffic Along Eastern Seabord, 1997-2000

(1000 tonnes)

	Malawi					Zambia					Mozambique			
Port/ Country	**1997**	**1998**	**1999**	**2000**	**Average**	**1997**	**1998**	**1999**	**2000**	**Average**	**1997**	**1998**	**1999**	**2000**
Nacala														
Imports	82	88	160	118		0	0	0	0		145	239	289	290
Exports	16	28	25	69		0	0	0	0		101	107	167	197
Total	**98**	**116**	**185**	**187**	**147**	**0**	**0**	**0**	**0**	**0**	**246**	**346**	**456**	**487**
Beira														
Imports	91	74	44	41		21	19	13	1					
Exports	81	83	60	92		46	32	52	10					
Total	**172**	**157**	**104**	**133**	**142**	**67**	**51**	**65**	**11**	**49**				
Maputo														
Imports	0	0	0	0		0	0	0	0					
Exports	0	0	0	0		0	0	0	0					
Total	0	0	0	0		0	0	0	0					
Durban/East London														
Imports	17	17	29	15		35	41	39	36					
Exports	12	19	32	9		4	2	2	7					
Total	**29**	**36**	**61**	**24**	**38**	**39**	**43**	**41**	**43**	**42**				
Total Traffic					**179**					**90**				

Source: SATCC Annual Report

- In an economy that is now very open to the outside world, but more in terms of dependence and imports, the only way in which Mozambique can aspire to living standards ever closer to the regional and international averages, is through improving economic competitiveness. But the solution for greater competitiveness lies, in the last instance, in improving societal productivity in general and not in isolated niches of the economy only.

I. INTRODUCTION

This Draft Report on the NDC strategic socio-economic perspective is submitted by the ETC International in accordance with the Terms of Reference (ToR) for the contract commissioned by the Spatial Development Initiative (SDI) Unit at the Development Bank of Southern Africa (DBSA).[1] As part of preparing the necessary technical background documentation for the development conference on the NDC, to be held late in February 2003, it has been decided that a strategic socio-economic perspective document should be prepared.

The main purpose of this document is to enable prospective investors, development planners, and interested members of the public to understand the nature and extent of the key economic and social issues/trends that are in evidence in the Nacala Development Corridor.

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to enable prospective investors, development planners, and interested members of the public to understand the nature and extent of the key economic and social issues/trends that are in evidence in the Nacala Development Corridor.

It is very important to note that this document is NOT intended, as the Terms of Reference (ToR) explicitly point out (See Appendix 1), to provide a detailed and comprehensive description, analysis, and assessment of the economies in the three countries involved either individually or collectively. What those commissioning this study requested, both in terms of the NDC development conference and the general development planning and project identification processes associated with this SDI, is a single

[1] The present report has been prepared by Prof. António A. da Silva Francisco (Economist/Demographer) and Mr. Amilcar Tivane (Economist). According to the ToR the consultants submitted a draft final report to the NDC project manager on the 27th January 2003. Relevant comments from the NDC Project Managers should have been provided within 7 days, while the final report should be completed within 14 days on the consultant having received comments from the NDC Project Managers. Time constrains associated with the final preparation of the Nacala Conference to be held on the 27-28th of February 2003 limited the opportunity for exchanging views and suggestions for improvement of this final version of the report. On the 14th of February the NDC Project Manager in Mozambique requested an immediate submission of a final version following the inclusion of some additional information associated with the NDC in Zambia and Malawi. Comments and suggestions for further improvement of this report can be directed to the following email addresses: afrancisco32@yahoo.com, afrancisco@uninet.co.mz.

document that provides an integrated overview and assessment of the most important strategic socio-economic issues and trends that provide the backdrop for the Nacala development Corridor initiative.

The report begins, still in the Introduction, by drawing up some considerations on the conceptual and methodological approach in which the analysis is framed. Two conceptual dimensions considered particular related to set up a clear and cogent strategic perspective are highlighted. Likewise, at the onset it appears to explicitly establish, at least for the purpose of this document, a key operational definition: what is a good strategic policy?

On the methodology used in the report, an option made with the objective to better satisfy the many key subject issues outlined in the ToR and the very high expectation they entail was to give emphasis to the analysis and evaluation of the data than provide a merely descriptive approach.

1.1 Rational and Methodological Approach of the Report

1.1.1 Efficacy versus Efficiency

The emphasis put in the Terms of Reference (ToR) on concepts like "strategic" and "perspective" indicates that those commissioning this study are interested on "what" the present situation in the NDC is chiefly to grasp "what can be" and how to design a way forward. Obviously, what the NDC countries will eventually become depends, in part, on what they are at the present time and what they were in the past. However, another crucial factor refers to the strategic goals, principles and methods of management that will be implemented.

As the popular wit uses to ask: 'What is the purpose of running fast if the direction taken is wrong?' Behind this concern lie two conceptual dimensions associated with strategic perspective and management: efficacy and efficiency. The *efficacy* of goal setting or resource usage concerns the question of leadership: 'Are we doing the right things", or do we have the priorities right? In turn, the *efficiency* problem refers to management: "are we doing things right", or is implementation efficient? (Covey, 1989: 101; ECON, 1998?).

If one takes the above two dimensions to the particular subject matter that motivated the NDC conference, at least three important issues should not be taken for granted:

1. Does the decision to identify the NDC as a SDI points to the right direction forward? This is a legitimate question, and is implicitly or explicitly asked by prospective private entrepreneurs. It is well

known that effectiveness does not depend solely on how much effort, and financial resources, one expends, but on whether or not the effort spent is in the right direction. As the past experience of economic management in Mozambique, and elsewhere in the region, have shown, good management did not always compensate for failure in leadership, due to wrong analyses and definitions of the priorities and direction to follow.

2. Are private entrepreneurs in the NDC countries, as well as regionally and internationally, unaware of the natural potentials of, say, the Nacala port? Or are the recent development interventions both planned and already implemented still not good enough to motivate the private entrepreneurs to invest massively in the NDC region?
3. Just as doing the right things is important, so it is doing the things right. This refers to management, which is a human activity often subject to cognitive bias and inconsistent behaviours, as well as the frequent changing in the economic, political and social environment.

The above specific concerns, directly or indirectly addressed throughout this report, have emerged while reviewing the relevant literature to analyse the key subjects outlined in the Terms of Reference.

1.1.2 Operational definition of a good strategic policy

Writing anything on strategic socio-economic perspective entails a certain perception of what a good, or a bad, economic policy is. Obviously, one can always conjure away the matter, and assume that a good economic policy is the one that leads to positive outcomes, impacts or consequences for the well being of society. But this view implies that one has to wait for the policy to be implemented in order to assess whether or not it was worthwhile to do it.

Yet policy makers and planners need from researchers and consultants a clear explanation of the basic concepts and operational definitions that underline their works. Thus, for the purpose of this work, by good economic policies it is meant any policy that strengthens a viable and healthy market economy. On the contrary, bad policies are those that reject the market economy (McRae, 1999: 42).

Fortunately, today the market economy is overwhelmingly accepted, if not unchallenged, as compared for instance to the central planning economy, which was attempted in Mozambique in the first decade pos independence.

This does not mean that, by accepting market economy, governments should play no role in the management of national economy. Instead,

besides determining a variety of policies associated with the basic legal and financial infrastructures, in which markets should stand, governments play a crucial role in maintaining social order and stability, as well as improving the conditions for markets to develop and function properly. Governments should try to accomplish their goals, as McRae (1999: 42) asserts, more by regulation than by intervention. They will see their role, as indeed seems to be the case in relation to the promotion of development corridors in the Southern African region, as contributing to the better functioning of markets, rather than substituting or competing with them.

1.1.3 Outputs/Deliverables

A specific request made explicit in the TsR is that the report should make use of maps, tables and graphs, and above all, should be written in a simple, but business-like manner, as well as providing a balanced (both strengths and weaknesses) overview, analysis and/or assessment of the following key subjects (see the TsR for details):

a. Description of the study area including location and natural endowment.
b. Recent history.
c. Overview of key demographic trends.
d. Overview of employment trends.
e. Physical infrastructure issues and trends.
f. Key environmental issues and trends.
g. Social infrastructure issues and trends.
h. Overview and assessment of economic development issues and trends.
i. Implications of the above for the socio-economic development process in the broader corridor.
j. Recommendations and follow-up actions.

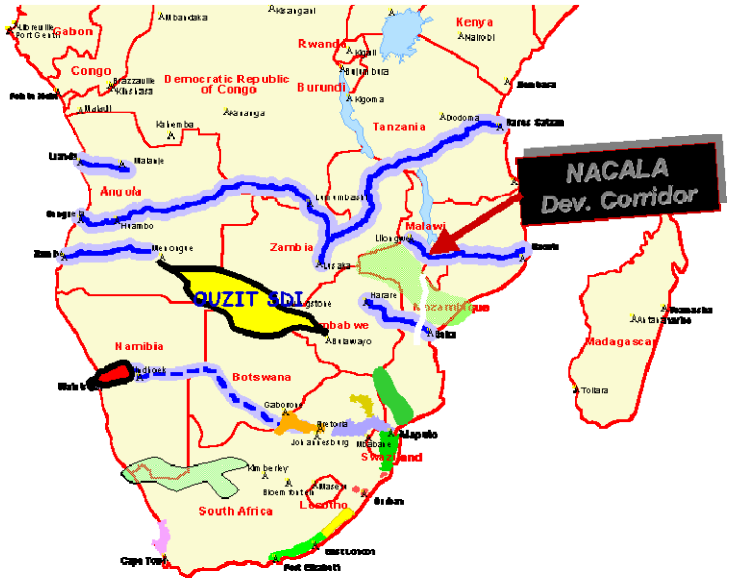
1.1.4 Methodological considerations

As the ToR point out the main output expected from this study is a concise integrated overview and the most important strategic socio-economic issues and trends that provide the backdrop for the Nacala development Corridor initiative, rather than a detailed and comprehensive description, analysis, and assessment of the economy in the area covered by the NDC. The output was expected to be prepared, and so it has been done, chiefly on the basis of existing secondary, rather than primarily, data sources.

The Draft report was prepared primarily on the basis of existing secondary case study materials, in part provided by the SDI Unit at the DBSA, and in part gathered by the Consultant. The following three main types of secondary analyses have been taken into account in the process of writing up the report:

1. Recent studies completed for the participating countries – Malawi, Mozambique and Zambia – at the conference, including: the provincial strategic plans, such as those for Zambezia, Niassa, Cabo Delgado, and the draft in progress for Nampula; key international monitoring country risk profiles and investment prospects produced by the Economist Intelligence Unit (EIUnit), the Icon Group International's Executive report on Strategies in Mozambique, the World Bank, IMF and UNCTAD's investment guides to Mozambique, and The Heritage Foundation's Index of Economic Freedom;
2. Key historical documents helpful to grasp the pre and post

Map 1: The Nacala Development Corridors
As on of the SDIs in the SADC Region



independence main strategic socio-economic perspectives attempted particularly in Mozambique, namely: the Third and Fourth Development Plan for the years 1968-73 and 1973-79, the 1978 Danish-Swedish's National Transport Survey, and the SADC transport plan.

3. Various statistical data sets useful to characterize the overall situation, constrains and prospects for the NDC countries.

1.2 The NDC as part of the SDI: Background and Objectives

1.2.1 The SDI as a Key Promoter of Subregional Instrument

Malawi, Mozambique and Zambia, three of the 14 nations that comprise the Southern African Development Community (SADC), are currently part of two sub-regional development projects designed to stimulate inter-regional trade and gear up their economies: the SADC Spatial Development Initiative (SDI) and the so-called Development Triangle. About the latter little more will be said in this report, except that it is associated with the United Nations, it was pioneered in the 1980s in Asia, and is considered an effective way to promote growth and economic co-operation between neighbouring developing countries.

In turn, the SDIs, generally private sector led, with public-sector support and assistance, are designed to focus on a core area with economic spin-offs also facilitating development in the peripheries of the triangle. The concept of spatial development initiatives (SDIs) is to pull together a number of integrated investment projects, which build on the potential of a particular geographic area. The Spatial Development Initiative (SDI) Program was initiated in South Africa, and conceived as a planning tool to unleash the potential of under utilized resources in certain areas.

The success of the South Africa SDI led to establishment of the SDI Programs in the Southern African Countries.[2] In this program, although the original concept of SDI was kept, the emphasis is on unlocking potential that can contribute to regional economic integration. Today the regional SDI program covers South Africa, Mozambique, Namibia, Swaziland, and Malawi. Tanzania, Angola and Rwanda are considering joining the program soon.

Following their early work on the Maputo Development Corridor, the SDI team has identified a number of other significant "investment corridors" throughout the SADC region. The corridors are proving successful in developing regional economic co-operation. The success of the Maputo Development Corridor initiative has already seen six more SDIs being developed in Mozambique. Two of these fall within Sofala province - the Zambezi Valley Development Initiative and the Beira Corridor Development Initiative. Another two are the Limpopo Corridor and the

[2] Other documents prepared for the NDC Conference discuss the NDC in the context of SADC, and in particular the New Partnership for Africa's Development (NEPAD), which was launched in Lusaka in July 2001. One of the main priorities of NEPAD in support of regional integration is to bridge the infrastructure gap, including energy, water, transport and information and communications technology.

Nacala Development Corridor, the latter being the subject of this document.

Thus, the NDC initiative is one, among other regional development corridor initiatives that form part of the Spatial Development Initiatives Programme and is funded via the South African Ministry of Trade and Industry. Key objectives for the regional SDIs include the following:

- To increase the rate of regional and national economic growth and development.
- To generate long term and sustainable regional and national employment.
- To enhance the levels of economic integration of the Southern African economies.
- To promote greater complementarities in economic strategies between southern African countries as opposed to unnecessarily competitive structures of production.
- To enhance intra-regional trade and to begin to correct the large trade imbalances between South Africa and the wider region.
- To increase international competitiveness of southern African exported goods.
- To mobilize increased flows of Foreign Direct Investment (FDI).

Related to the investment promotion and development planning schemes mentioned above, it is important to refer that at the national level governments have their own formal policy, planning and budgeting instruments, such as, in the case of Mozambique:[3]

- The Five-Year Program for the period 2000-2004 (*Programa do Governo 2000-2004,* PDG);
- The Annual Budget (*Orçamento Geral do Estado*, OGE), which is the budget document;
- The annual Economic and Social Plan (*Plano Económico e Social*, PES), which is presented with the budget;
- The Medium Term Fiscal Framework (MTFF), which provides estimates of the resource envelope by source over a ten-year period, and allocation of resources across administrative units for the coming five-year period;

[3] The following enumerated policy and planning instruments draws upon Gustafsson and Disch (2001) and for more details see their report *Macro-Financial Aid Programme to Mozambique*.

- The Sector Strategic Plans (SSPs) prepared by ministries lay out their proposed priorities and work programme, usually for a five-year period;
- The recently established budget execution reports (*Relatório de Execução do Orçamento do Estado* (REOE), produced quarterly and assist both the authorities and development partners track actual expenditure patterns;
- The Poverty Action Plan (*Plano de Acção para a Redução da Pobreza Absoluta* (2001-2005) (PARPA), essentially drawn upon the sector strategies for what are considered the key areas for poverty reduction, and then extracts those dimensions from these sector strategies that are deemed most relevant.

At an even more disaggregated level, there are the Provincial Strategic Development Plans (PPs), which are fairly recent. Not all provinces have formal plans in place, and those that exist vary with regards to coverage (sectors and geographic break-down), quality and detail of information, and the process behind producing them.

Gustafsson and Disch (2001) stress that Nampula has come the farthest in terms of using district-level planning to create a "bottom-up" provincial plan, which is now being looked at as model for other provinces. The links to national plans, whether at sector or general macro level, also differ considerably.

The latest plans presented at provincial investment Conferences were those for Cabo Delgado and Inhambane, covering the 2001-2005 period. They provide good overviews of the current provincial situation, covering all sectors and districts, though most of the discussion is in terms of larger zones. They call attention for probable consequences of HIV/Aids pandemics on variables such as population size and life expectancy, but they are not able to use this when estimating the results of the scenarios presented.

In summing up, after browsing the relevant regional, sub-regional and national policy and planning instruments, a key issue deserving further attention should be pointed out: there is still no clear and well-articulated link among such policy and planning instruments, both in terms of defining policy priorities and budget allocation, as well as monitoring their outputs and outcomes.

The policy and programming documents are largely consistent in having poverty reduction as a key objective at national and sector levels, though the degree of specificity and operationalization varies considerably. Links between the sub regional (SDIs) to national instruments, and even more so to lower administrative levels, remain weak, quality and coverage of data varies, and Provincial Plans, in

particular, require considerable improvements. Progress is being made, however, though unevenly. Despite the shortcomings noted, the planning and budgeting are responding to political decisions. The poverty reduction objective is clearly leading to considerable attention on to how to address this through public sector action, though the quality of the responses so far is highly variable.

An aspect highlighted by Gustafsson and Disch (2001) regards the explicit setting up of relatively ambitious objectives and targets for economic growth in the provinces. Gustafsson and Disch (2001) assert, in relation to Cabo Delgado's Provincial Plan: "The formal objectives are high growth (it has an ambitious 10% annual target), and poverty reduction".

As this report shows, Mozambique and the other NDC countries, face a colossal but unavoidably challenge, if they are really hoping for a visible improvement on their populations' living standards and a reduction on absolute poverty. These countries and, in particular their governments and entrepreneurs, have no alternative but being ambitious in finding out ways to achieving high economic growth rates.

Being ambitious does not necessarily mean to be unrealistic, or deliberately self-deceptive and unwarrantedly optimist. And, of course, to avoid the latter one needs first all to be objective and come to terms with the actual reality, however difficult it may be, as it is the case with the extreme poverty and lack of resources faced currently by most of the provinces of NDC countries.

1.3.1 Scope and objective of the NDC

The concept of development corridors is not new. Regional issues in planning and economic development have driven governments worldwide to pursue strategies which link geographic areas with common interests. The variety of existing and planned development corridors reflects the diversity of geographic and socio-economic circumstances under which they function. Yet in all cases, the political divisions of local, regional or national governments have become less important and the spirit of cooperation with a common purpose has prevailed.

In the broadest sense, a development corridor is a geographic linkage created through policy for the expressed purpose of economic development within certain regions. Development corridors can take many forms, but are almost always assigned to that linear geographic area bisected by an existing or potential infrastructure route "spine". Such infrastructure enables access to points at both ends of, and within, the corridor, and is usually the critical link spurring development along

the corridor. Often, investments in upgrading or constructing new spine highways, rail lines, canals, gas/oil pipelines, or communications infrastructure are made to enhance opportunities within the corridor.

Development corridors perform several different functions, the most holistic approach being the one that promotes the expansion of opportunities for an industry, such as tourism, while conserving and enhancing the cultural and environmental aspects of the area.

A significant amount of donor, public and private sector investment has been mobilised to support the upgrading of the NDC over the past few years. A considerable amount of infrastructure is already planned, programmed and funded for implementation along the 'spine' of the NDC. A number of strategically important infrastructure projects, fundamental to the NDC, have also been recently completed. Similarly, there are also a significant number of economic development projects that have been identified, planned, programmed and put on the market for potential investors. There are also a number of important existing development planning initiatives underway in the NDC that are strategically important.

According to the memorandum of Understanding between Mozambique and Malawi the strategic objectives of the NDC are as follows:

- To develop adequate, reliable, cost effective, efficient and seamless transport, telecommunications and energy systems so that the Corridor is a competitive investment area. In particular to upgrade of this historic transport route linking Nacala to Blantyre, Lilongwe and the eastern and northern provinces of Zambia so that it renders an efficient, reliable, and seamless flow of goods and services.
- To foster economic growth through the promotion and coordination of economically viable business in transport, agriculture, fisheries, cattle breeding, commerce, industry, mining and tourism and any other activities deemed vital for the development of the Corridor. These activities are intended to facilitate the conversion and upgrading of the transport corridor into an economically more diversified development corridor.
- To foster increased economic activity through the promotion of trade, which in turn would facilitate greater regional integration between Malawi, Mozambique and Zambia (the participating countries); and
- To ensure that the development of the Corridor takes place in an environmentally sustainable manner.

1.3.2 The NDC Conference, February 2003

Like the other development corridors already established in Mozambique, the Nacala Development Corridor (NDC) is defined more by a spirit of cooperation, generated by a strategy which links geographical and socio-economic areas with common interests, than the political divisions of local, regional or national governments.

Development corridors can take many forms, but as almost always, the NDC has been assigned to that linear geographic area bisected by an existing or potential infrastructure route "spine". Such infrastructure enables access to points at both ends of, and within, the corridor, namely in this case, the Nacala port and the Lake Niassa. In the past, this link become a critical link, spurring development along the corridor, the more so if the inadequacies of some of its infrastructure network are upgraded in order to enhance rather than hamper private investment opportunities.

The nature and extent of recent development interventions in the NDC, both planned and already implemented, are not well know within the broader SADC region, and for that reason it has been agreed that there will be a development conference focused on the NDC towards the end of the year 2002. The NDC investor conference has two main purposes:

1º To disseminate information to the existing and prospective investors in the NDC and its hinterland about development projects implemented over the past 3-5 years, as well as those projects already planned, programmed, funded and in implementation. Details will also be provided about those investment projects that have already been put out to the private sector for concessions;

2º To present new infrastructure and economic development projects to the private sector and donors as potential investment projects.

II. THE NDC COUNTRIES AND THE SADC REGION: GAPS AND CONTRASTS

2.1 A snapshot of the economic state of the 3 NDC-Countries

A comparison between the economic sate of the three NDC-countries – Malawi, Mozambique and Zambia - with the SADC region as a whole, and specific countries in particular, can provide a snapshot of the diversity and imbalances in the community, in terms of size of the economy and the population, the current and past speed of economic growth, and the performance they unavoidably must aspire if, in the next two to three decades, the community has any hope of becoming an integrated and well- functioning regional group.

While Map 2.1 illustrates the diversity of the SADC country members' geographical dimension, the Table 2.1 summarizes data on surface area, GDP, population, forecasted economic growth and GDP per capita.

Map 2.1: Countries comprising the SADC region

Source: http://www.sarpn.org.za/regpov.php

The 14 nations of the SADC, with a population of about 200 millions inhabitants, produced in the year 2002 an estimated GDP of about US$180 billions, which represents an average of US$1,563 per capita

GDP. The SADC economies were expected to grow at an average of 3.5 percent in 2002, although growth rates for individual countries ranged widely between 10.3 percent in Angola to minus 5 percent in Zimbabwe (SARNP, 2002).[4]

The data in Table 2.1 provide some benchmarks that illustrate the inbuilt imbalances between causes and results, inputs and outputs, and efforts and rewards:

- Some 21% of the population in South Africa produces about 70 percent of the GDP of the whole SADC region. As the Table 2.1 shows the South African's economy is about 2.3 times bigger than the economy of the "Rest" of the SADC region.

Table 2.1. Real GDP growth in the SADC, 2002

SADC countries	Area (1000 sq.km)	GDP 2000 (USD bn)	Population 2000 (Million)	Forecast 2002	Per Capita GDP 2000
Angola	1,247	$ 8.8	12.7	10.3%	693
Botswana	582	$ 5.3	1.6	4.1%	3,313
Democratic Republic of Congo	2,435	$ 4.5	51.4	2.5%	88
Lesotho	30	$ 0.9	2.2	2.8%	409
Malawi	119	$ 1.7	11.0	3.0%	155
Mauritius	2	$ 4.3	1.2	6.4%	3,583
Mozambique	799	$ 3.8	17.6	9.0%	216
Namibia	824	$ 3.5	1.7	3.5%	2,059
Seychelles	1	$ 0.6	0.1	0.0%	6,000
South Africa	1,221	$ 125.9	42.8	2.1%	2,942
Swaziland	17	$ 1.3	1.0	2.3%	1,300
Tanzania	945	$ 9.0	33.7	5.2%	267
Zambia	753	$ 2.9	10.1	3.0%	287
Zimbabwe	391	$ 7.2	12.6	-5.0%	571
NDC countries	**1,671**	**8,4**	**38,7**	**5%**	**219**
TOTAL	**9,366**	**180**	**200**	**3.5%**	**1,563**

Source: http://www.sarpn.org.za/regpov.php

- Botswana, with a population of the size of Maputo and Matola Cities, produces 1.5 times and 5 times more than the whole Mozambique and Maputo City, respectively. The 3-NDC countries taken together produce about 7 per cent of South

[4] Some of the figure may differ more or less from source to source.

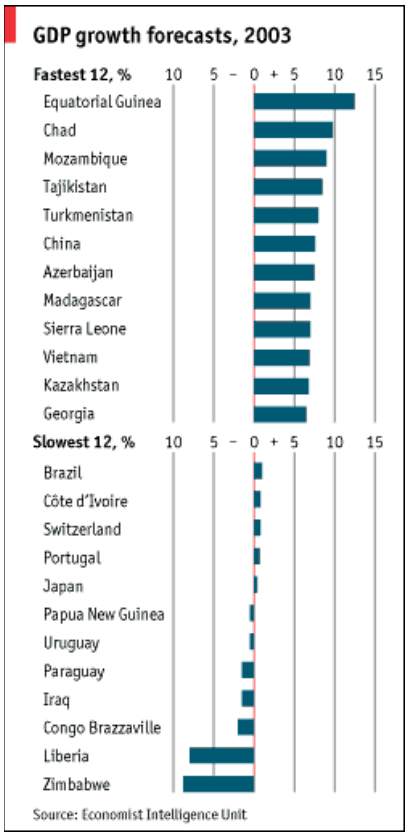
African's GDP, but their populations represents 90 percent of South Africa's. Even without speaking about the inequalities hidden behind an average indicator like the per capita GDP, the feature highlighted here shows the long road that lies ahead for the NDC countries to be able to raise the living standards of their populations.

2.2 Raising living standards of the NDC populations: A colossal challenge!

2.2.1. Present and past economic performance in the NDC …

The first 2003 edition of *The Economist* (Jan, 2nd 2003) forecasted the performance of the world's economies in the current year based on the Economist Intelligence Unit (EI-Unit), a sister organization of *The Economist*. As Table 2.2 shows Mozambique appears among the fasted growing economies, immediately after two other African countries: Equatorial Guinea, boosted by oil and gas industries, and likely to see a 12.5% rise in its GDP, while Chad can expect economic growth to almost 10%.

Table 2.2: Expected Fasted Growing Economies, 2003



The EI-Unit considers that the economic outlook of Mozambique remains favourable: real GDP growth is expected to stay high, averaging 9% in 2002-03 as a number of sectors recover from the 2000 floods.

None of the other SADC members, except Madagascar, appear among the 12 fasted growing economies, while at the other extreme, Zimbabwe's economy is expected to shrink by almost 9%.

In relation to the other two NDC countries, The EI-Unit forecasts that Malawi's economy will grow in 2002, but it has reduced its forecast for

real GDP growth from 3.2% to 1.5%, owing to the effects of the famine. It has also reduced its forecast for real GDP growth in 2003 down to 2.1%, from 3%, because although a good tobacco crop is expected other agricultural output is expected to be weak.

In turn, for Zambia The EI-Unit forecasts a real GDP to grow by 3.2% in 2002 (from 2.4%), mainly because financing has been secured for the Konkola Copper Mines, supplemented by higher copper output.

Table 2.3: Mozambique at a Glance, 2001

Population : 18.1 million
Surface area (1997): 118.5 thousand sq. km
Population per sq. km (1997): 22
Population growth (1995-01) : 2.2 %
Life expectancy (years): 42 years
GNI per capita : 160 US$
GDP : 3.6 billion US$

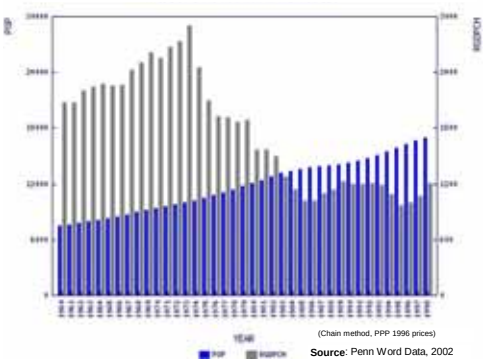
Source: *World Development Indicators Database*

From the above, one may conclude that the group of three countries comprising the NDC grew in 2002 at about 5% per year, and reached an average per capita GDP of about $219.

For a middle-income country, like for instance Botswana and Mauritius, a real annual growth rate of about 5% is satisfactory. However, for countries so poor as these three that comprise the NDC, such a growth rate is hardly satisfactory. This can be best illustrated with some figures on the magnitude of the economic growth and development task and efforts, as far as more equitable SADC living standards are concerned. Before that, though, it is useful to provide a brief overview of the three economies comprising the NDC countries benchmarked against Botswana's economy, which is one of the fastest sustainable growth economies in the world and the freest economy in Africa.

To be realistic, the average growth rate of the three NDC countries considered in a longer perspective seems to have been lower than the one drawn from the forecast presented in Table 2.1 above. This longer trend perspective is important to be given priority because it reflects the actual capacity and potential of the economy to speed up its growth. For instance, Mozambique's real GDP in 2001 grew by a remarkable 13.9% owing to recovery in a number of sectors including construction, transport, agriculture and services. However, one should not deceive oneself with that particular achievement, both because the starting basis of the recovery has been extremely low and because in the two decades after independence the national economy experienced dramatic changes and crises.

Graph 2. 1. Mozambique's Real per Capita GDP by Population, 1960-1998



(Chain method, PPP 1996 prices)

Source: Penn Word Data, 2002

Graph 1 depicts the longer economic trend of real per capita GDP in comparison with population trend from 1960 to 1998, which clearly shows a sharp fall of the economy since 1973. According to the Penn World Tables, Mozambique's real per capita GDP in 1960 was 2072, it then reached its maximum (PPP$ 2899) in 1973, its minimum (PPP$ 968) in 1995, and in 1998 it was 58% of the 1960 level; overall, the growth rate between 1960 and 1998 averaged minus 1.4% annually.[5] More recently, and this time in constant 1995 US dollars, according to the World Bank, from 1991 to 2000 compound annual growth in GDP averaged 5.6% and per capita GDP increased from $143 to $191 (in constant 1995 US dollars).

Table 2.4: Malawi at a Glance - 2001

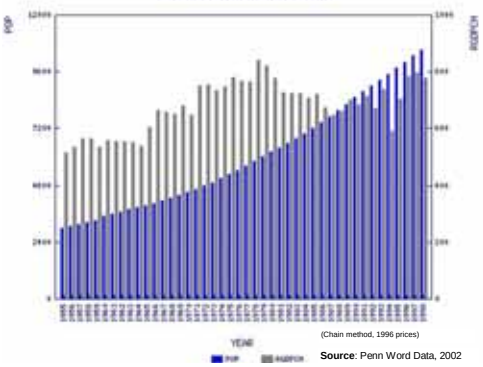
Population : 11 million
Surface area (1997): 118.5 thousand sq. km
Population per sq. km (1997): 117
Population growth (1995-01) : 2 %
Life expectancy (1998): 38 years
GNI per capita : 160 US$
GDP : 1.7 billion US$

Source: *World Development Indicators Database*

In relation to Malawi, still a primarily agricultural economy, Graph 2 depicts the longer economic trend of its real per capita GDP, in comparison with population growth from 1955 to 1998. According to the Penn World Tables, Malawi's real per capita GDP in 1955 was 513, the lowest in the data set, it has reached its maximum (PPP$ 841) in 1978, and a lower level (PPP$ 778) in 1998. Overall, the annual growth rate from 1955 to 1998 averaged 1% annually.

Table 2.1 indicates an annual 3% growth rate in 2002, but its longer speed of economic growth has also been slower. According to the World Bank, from 1991 to 2000 compound annual growth of Malawi's GDP averaged 2.9% annually and per capita income rose slightly from $155 to $169 (in constant 1995 US dollars).

Graph 2.2: Malawi's Real per Capita GDP by Population, 1955-1998



(Chain method, 1996 prices)

Source: Penn Word Data, 2002

The EI Unit foresees that famine, shortfalls in donor aid, inflationary financing of the fiscal deficit and tax rises in the 2002/03 budget will hamper the economy. Assuming a normal tobacco crop, donor inflows to alleviate famine and greater fiscal discipline, real GDP growth is forecast to grow by 2.1% in 2003.

[5] These data and those for the three graphs similar to this that follow are based on the chain method of the Pen Word Tables.

In the case of Zambia, agriculture is the largest employer and accounts for over 16% of GDP. Mining of copper and cobalt is the economic mainstay, supplying over 75% of exports, though production has been declining since the 1970s, and the country's rich mines are struggling to remain profitable as international prices decline.

Table 2.5: Zambia at a Glance – 2001

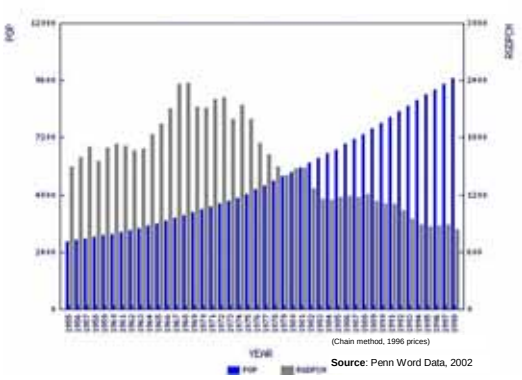
Population : 10.3 million
Surface area (1997): 752.6 thousand sq. km
Population per sq. km (1997): 14
Population growth (1995-01) : 2.3%
Life expectancy (years): 45
GNI per capita : 320 US$
GDP : 3.6 billion US$

Source: *World Development Indicators Database*

Graph 3 depicts the longer economic trend of Zambia's real per capita GDP, from 1955 to 1998. According to the Penn World Tables, Zambia's real per capita GDP was PPP$ 968 in 1955, it reached the maximum (PPP$ 2373) in 1968, and the minimum (843) in 1998. Overall, the annual growth rate from 1955 to 1998 averaged minus 1.3%.

Table 2.1 above forecasted an annual 3% growth rate in 2002 for Zambia, but as Graph 3 shows the longer speed of economic growth has been much slower. According to the World Bank, from 1991 to 2000 compound annual growth of Zambia's GDP averaged 0.7% annually, and per capita income declined dramatically from $392 to $300 (in constant 1995 US dollars). The EI Unit foresees for the short term that, although drought will constrain growth in 2003, real GDP is likely to grow by 3.2%, supplemented by higher copper output.

Graph 2.3: Zambia's Real per Capita GDP by Population, 1955-1998



Source: Penn Word Data, 2002

2.2.2 … benchmarked against Botswana's economic performance

The snapshot provided above for the three countries comprising the NDC can now be benchmarked against Botswana, one of the 14 SADC members. Indeed, instead of turning the attention to elsewhere in the world, say, the per capita GDP of the so-called Asian "Tigers" – Hong Kong, Korea, Singapore, and Taiwan Province of China. These countries have growth robustly for over three decades at an annual growth rate of output per person well in excess of 6 percent. As Sarel (1997: 2) put it,

"These growth rates, sustained over a 30-year period, are simply amazing".

However, any analyst concerned with the Southern African economies does not need to seek for examples of spectacular growth as far away as the East Asia. The country with the fastest sustainable growth for almost four decades is relatively close to the NDC region and it is one of the SADC's members, that is Botswana.

Table 2.6: Botswana at a Glance - 2001

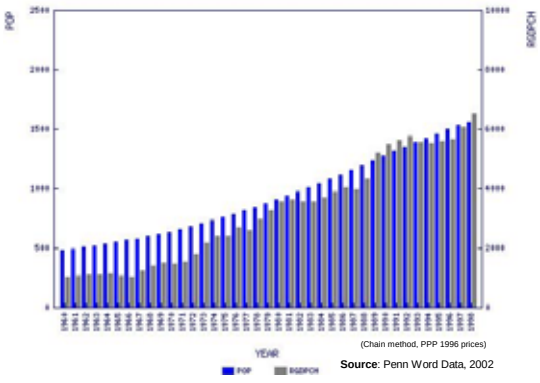
Population : 1.6 million
Surface area (1997): 581.7 thousand sq. km
Population per sq. km: 3
Population growth : 1.7 %
GNI per capita : 3,420 US$
GDP : 5.2 billions US$

Source: *World Development Indicators Database*

Since 1966, the year of its independence, Botswana's GDP has grown, depending on the measure taken, by an average of 5-7% a year, in US dollars, and 4% in PPP$. Botswana's per head GDP jumped from US$80 a year at the independence to a level between $3711 to $3951, in 1991-2000; that is, about 50 times higher than the living standard at the independence, almost four decades ago.

According to *The Economist*, political stability under continuous civilian rule, sound economic policy, and ample natural resources have contributed to Botswana's status as the country with the fastest growth in per capita income over almost four decades.

Graph 2.4: Botswana's Real per Capita GDP by Population, 1960-1998



Source: Penn Word Data, 2002

Between 1991 and 2000, compound growth in GDP averaged 4.4 percent and per capita GDP—among the highest in sub-Saharan Africa—increased from $3,259 to $3,951 (in constant 1993 US dollars).

As one of sub-Saharan Africa's brightest economic prospects, Botswana has the region's highest sovereign credit rating. Its currency is strong and Moody's rates its bonds more highly than Japan's. Botswana is also rated Africa's freest economy by the Heritage Foundation in its annual Index of Economic Freedom (O'Driscoll et al. 2002, 2003).

The economy of Botswana remains heavily dependent on the mining industry, in particular diamonds, which provides 38% of GDP in 1997/98, two-thirds of export income and account for over 50 percent of government revenue. However, the dominance of mining has declined in the last five years, with the relatively rapid growth of trade, financial and government services. Manufacturing, which has attracted high

levels of government support, has maintained a fairly stable position, contributing about 5-6% of GDP, but its contribution may well increase as the vehicle industry expands. Agriculture, notably cattle, used to dominate economic activity before the opening of the first mine in 1971 but has suffered a decline in its share of GDP to under 4% and is unlikely to recover.

Botswana faces a number of challenges, from the AIDS pandemics to the need of reducing the government's role in the national economy (currently, the government consumes half of the country's GDP, up from just 21% in 1970). Prudent economic policies have meant that Botswana has built up substantial savings–an average of 30 months of import cover–and intends to use this money to build up the infrastructure and skills necessary to diversify the economy.

2.2.3 Magnitude of development task for the NDC countries

Following the above overview of the NDC countries' economic situation at the present and its past performance, it is now important to turn to the future. Although nobody knows how the economies of the NDC will perform, in medium and longer-term periods, one thing can be relatively well foreseen based on the past and present situation: the magnitude of the development task if the NDC countries can have any hope to improving the living standards of their populations and becoming a well-integrated and functioning sub-regional group is colossal.

Although it is not part of the terms of reference for this document to set up specific task and targets, the exercise that follows can be useful to grasp the magnitude of the effort required in terms of time scale of the catching up process by the NDC countries given their recent growth performance, and the growth task they face in preventing the absolute gap from widening and attempting to achieve parity of living standards with the most developed countries in the SADC regions. To facilitate quantification, let us assume as the desirable goal to narrow and eventually eliminate both the absolute poverty and the relative gap between the NDC countries and Botswana, the latter taken here as the target per capita income.

How long will it take for the NDC countries to reach the current level of Botswana's per capita GDP?

Assuming that the NDC countries will experience until, say, the year 2025, the same GDP growth rate has the one observed in the 1990s (3%), they would take, with a per capita GDP of $251, 93 years to reach the current living standards enjoyed by Botswana.

Of course, with an average 3% GDP growth rate, as the one presented in Table 2.7 for the NDC countries as a whole, if Botswana's per capita

GDP continues to grow at an average 4% annually, the absolute gap will widen for ever. So, here it is one task for the NDC countries for the medium and longer-run: to have an economic growth rate greater than the one in the middle or high income countries, otherwise the absolute gap will continue to widen rather than reduce.

Now, another relevant question is: how fast will the NDC countries have to grow merely to prevent the absolute per capita GDP gap in relation to Botswana being any wider, say, in the year 2025 than now?

Assuming that Botswana's per capita GDP will continue, in the next three decades, to grow at an annual average rate of 4%, the NDC countries will have to grow at an average rate of 14% per annum.

Table 2.7. Compound growth in GDP and per capita GDP, 1991-2000

	GDP growth 1991-2000	Per capita GDP 1999	Per capita GDP 2000
Botswana	4%	3.295	3.951
Malawi	2,9%	155	169
Mozambique	5,6%	143	191
Zambia	0,7%	463	392
NDC average	**3%**	**254**	**251**

Source: The Heritage Foundation, 2003

This is a remarkable and, under the present circumstances in the three NDC economies, hardly feasible growth rate. An even more difficult task is the one associated with a much more ambitious task set out by the issue: how fast will the NDC countries have to grow for their real per capita GDP to be equalised by the year 2025?

If Botswana maintains its 4% annual growth rate, the NDC countries would have to grow at about 16% annually to be equalised to the former by the year 2025.

All the above estimates are sensitive to the assumed future growth rate, in this case of Botswana, the choice of the target year in the future, and the base year level of real per capita GDP taken for the NDC countries. However, the issue the above quantifications are associated with are far from purely academic and irrelevant, in this case, for the concerns that have motivated the NDC conference.

With the magnitude of incidence and depth of poverty as the three countries comprising the NDC have, which is summarized in Table 2.8, only with ambitious development goals and relatively high economic

Table 2.8. The Incidence and Depth of Poverty in the NDC, 1995-1999

	Population living on less than $1 a day			Population living on less than $2 a day		
	Incidence of poverty (%)	Number of poor ('000)	Average consumption of poor (1985 PPP $ a day)	Incidence of poverty (%)	Number of poor ('000)	Average consumption of poor (1985 PPP $ a day)
Malawi	58,9	6.031	0.75	87,3	8.966	0,97
Mozambique	40,2	6.650	0,86	80,2	13.293	1,16
Zambia	80,0	7.547	0,55	93,2	8.799	0,73

Source: UNCTAD, 2002: 57

growth can they see a visible impact on poverty in the foreseeable future.

However optimist one might be, no one at the present stage can indicate with precision what the future rate of Botswana and the other middle income countries will be. What can be anticipated as certain is that the NDC countries must set up achievable but undoubtedly ambitious developmental goals and targets.

In this regard, the quantifications presented above may be useful in two ways. On the one hand, they provide specific measures of the magnitude of the efforts and goals to set for, which directly or indirectly, should foster a reflection on the needs in terms of resources and management. On the other hand, they set up the grounds for the range of specific initiatives, such as those associated with the Mega-Projects and the development corridors like the NDC, aiming at maximizing the utilization of SADC countries' potentials and, eventually, narrowing and eliminating both the absolute and the relative gaps within the SADC community itself.

III. NACALA DEVELOPMENT CORRIDOR: demographic, Economic and Social

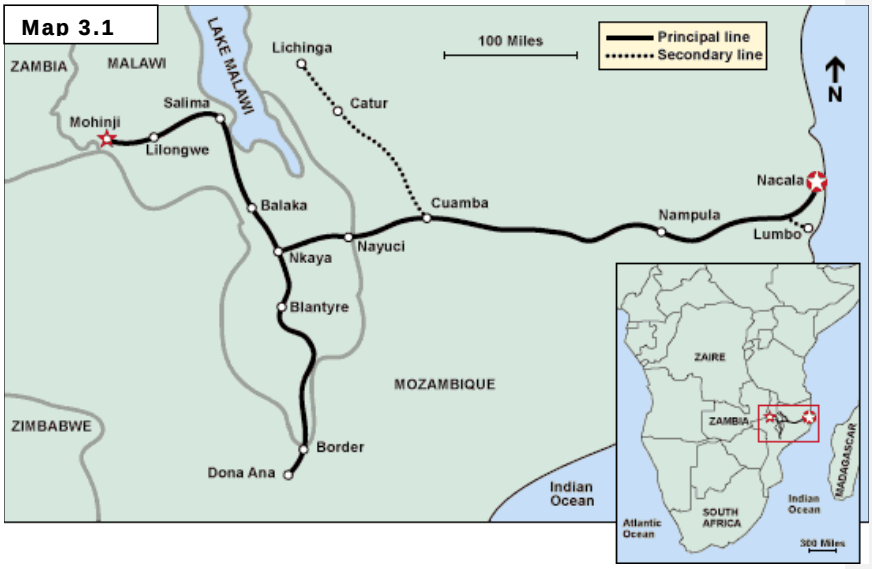
As mentioned above the concept of development corridor entails a developmental planning broader than the specifically assigned linear geographic area bisected by an existing or potential infrastructure route "spine", such as in the case of the Nacala Corridor the rail line from Malawi and Zambia to the port of Nacala. The concept of development corridor associated with the SDIs are designed to stimulate inter-regional trade by pulling together a number of integrated investment projects which build on the potential of a particular geographic area.

The present section provides a description of the study area, including: location and natural endowment; demographic trends relative to population distribution and expected growth along de corridor; employment and unemployment situation in the provinces directly associated with the NDC; physical infrastructure issues and trends, with particular focus for the transport network in the area studied; and relevant social and cultural characteristics.

This section provides a brief description of the demographic context in which the NDC and, in particular, the most directly areas associated with it are emerging. The section highlights and compares population dynamics with and without the NDC projects.

The without-project situation considered here is not the same as before-project situation that has been in the process of being revived. The without-project situation is understood in terms of the past, present and future levels of productivity and socio-demographic changes of the

Map 3.1



relevant resources, namely in the areas directly or indirectly affected by the NDC.

3.1 Demographics of the NDC: with and without the Corridor Project

3.1.1 Area and populations directly associated with the NDC

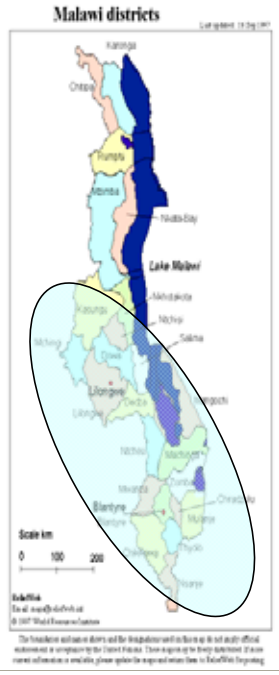
The governments of Malawi and Mozambique have derived the concept of the Nacala Development Corridor jointly in order to exploit the significantly under-utilized natural resources present in the two countries. Geographically the Nacala Development Corridor (see Map 3.1) includes the following areas of:

Geographical Dimension of NDC - Malawi

Malawi – all districts in the Southern Region, Chipoka port in Salima, the Districts of Ntcheu, Dedza, Salima, Dowa, Lilongwe and Mchinji in the Central Region, and landmasses in Lake Malawi.

This means that about 75% of the surface area and 87% of the Malawian Population are directly related to the NDC.

Map 3.2

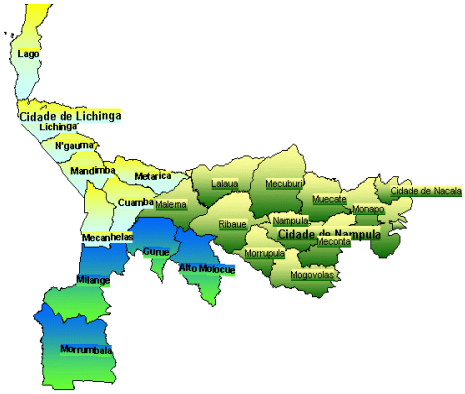


Map3.3: Geographical Dimension of NDC - Mozambique

Mozambique - the Nacala port, the geographical areas bordering the Nacala and Entre Lagos Railway line and the Cuamba-Lichinga Railway line and Lake Niassa.

This means that about 15% of the surface area and 22% of the Mozambique population are directly related to the NDC.

Map 3.2 Main district directly related to the NDC-Mozambique

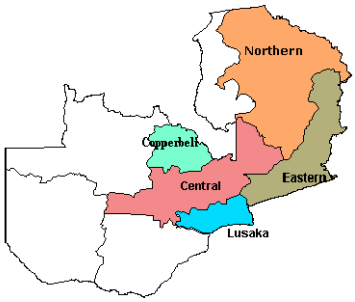


Geographical Dimension of NDC-Zambia

Zambia - Recently the Zambian Government has indicated its desire to join the initiative, and as such the areas coloured in the map should be regarded as part of the NDC because they constitute an important hinterland to the NDC. Of particular importance are the rich mineral veins of the country's copper belt. The belt extends down into Zambia from southern Zaire and contains deposits of copper, cobalt, and other minerals.

Overall, the NDC in Zambia is estimated to represent about 34% of its surface area and 51% of the total population.

Map 3.4 Main Provinces Directly Related to the NDC in Zambia



While the mapping above highlight the areas more closely related to the NDC, Table 3.1 summarizes the size of the areas and the number of people expected to be directly affected as the NDC's run-down ports, worn-out roads and rail infra-structures in the broader context of the provinces and districts they are administratively part of. Table 3.1 summarizes the estimated surface area and population in the three NDC countries. However, it is important to notice that the NDC comprises an area of about 552 thousand square kilometres and an estimated population of about 20 million inhabitants in the year 2002.

Table 3.1: Geographical and Demographic Size of the NDC, 2002

Country/ Province	Land Area square km	Total Population (1000 inh.)	Pop Density Inh./sq. km	Percentual distribution Land Area	Population
Mozambique	799.380	18.083	23	100%	100%
Northern Region of Mozambique	293.303	5.852	20	37%	32%
Mozambique (NDC provinces)	**116.427**	**3.893**	**34**	**15%**	**22%**
Water surface(Lago Niassa) /1	3.440				
Niassa Province	36.715	681	19	4,6%	3,8%
Nampula Province	46.670	2.048	44	5,8%	11,3%
Zambezia	29.602	1.164	39	3,7%	6,4%
Malawi	94.276	10.742	113		
Malawi (NDC provinces)	**70.785**	**9.370**	**139**	**75%**	**87%**
Water surface(Lake Malawi) /2	3.440				
Central Region	35.592	4.471	126	37,8%	41,6%
Southern Region	31.753	4.899	154	33,7%	45,6%
Zambia	752.614,0	10.764,2	14		
Zambia (NDC provinces)	**364.364**	**7.122**	**12**	**48%**	**66%**
Northern Province	147.825	1.473	10	19,6%	13,7%
H140Copperbelt Province	31.326,0	1.735,0	55	8,6%	24,4%
Eastern Province	68.923	1.362	20	9,2%	12,6%
Central Province	94.394	1.054	11	12,5%	9,8%
Lusaka Province	21896	1499	68	2,9%	13,9%
Total (NDC countries)	1.646.270	39.589			
Total (NDC provinces)	**551.576**	**20.385**		**34%**	**51%**

Notes:

Malawi/Niassa Ikae is the third largest lake in Africa, with a water surface area of about 6880 square km.

For the purpose of this study the size of the lake is divided equally between Malawi and Mozambique

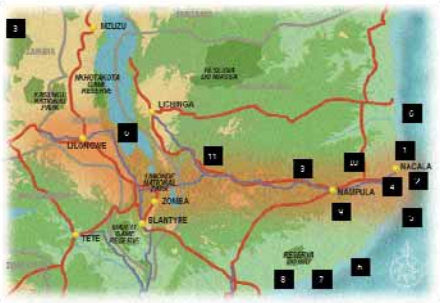
1/ Half surface of the Niassa Lake

2/ Half surface of the Malawi lake.

3.1.2 The NDC and its core natural and economic endowments

A key strategy by the three NDC countries is that of generating economies of scale for the development of required infrastructure, marketing of production, and utilising/exploiting the inherent natural resource based development potential. Table 3.2 summarizes some of main natural and economic endowments in the NDC region.

Table 3.2: Natural and Economic Endowments of NDC



Tourism

Ilha de Mocambique - Historical Tourism.

Coastal Tourism - Lundu - Chocas).

Lake Niassa/Malawi

Mining and Mineral Processing

Malawi

- **Mulange - Bauxite**
- **Malowa - deposits on Calcium**
- **Lake Salima Titanium reserves**
- **Thundulu - Phosphate**
- **Nsanje - Coal.**

Mozambique

Nacala Chloride Cluster

Input: Salt, Magnesia, Titania slag

Output: Magnesium metal, titanium metal, titanium dioxide pigment, caustic soda, chloride.

Capex: 1 billion US$.

Nacala Titanium Plant.

Capex 250 million US$.

Nacala salt pans.

Zambia

Copperbelt: Cooper, Cobalt, Lead, Zinc

Agriculture in Malawi Corridor

Cotton, Tobbaco, Groundnut

Agriculture in Mozambique Corridor

Angoche - Cashew nuts.
Moma - Copra production.
Nampula - Cashew nuts & sisal
Monapo - Vegetable oil factory.

Cuamba- Cotton.

Agriculture in Zambia Corridor

Coffee
Cotton
Beef & Poultry

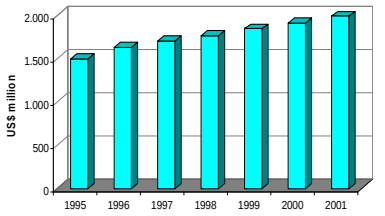
Although the inherent potential for agricultural (including forestry and fisheries), mining, tourism, and industrial development is very good, the inadequacies of the infrastructure networks have hampered the utilization of this development potential.

3.2 Estimating the Weight of the NDC in the Economy of three Countries: Malawi, Mozambique and Zambia

3.2.1 Level and Composition of the Economic Production

Chapter 2 indicates that the GDP of the NDC countries together was US$8.4 billion in the year 2000, though the data may differ depending on the sources and methodologies used.[6] In spite of some discrepancies in the data one feature regarding the current economic production in the three NDC countries is that in the years 2000-2001 Malawi contributed more or less 20% to the joint GDP, while Mozambique and Zambia contributed 40% each. However, when considering the living standards measured in terms of GDP per capita, Zambia has the highest level among the three.

Graph 3.1: Gross Domestic Product, Malawi 1995-2001

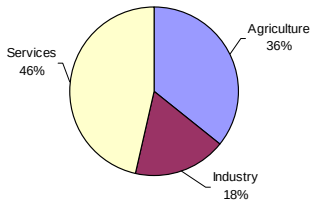


Source: EI-UNIT, 2002

Specifically about each country, and without getting much further into the overall macro-economic picture of the three NDC countries, it may be useful to add a few remarks about the most recent level and composition of their production.

In relation to Malawi, the GDP at both factor cost and market prices expressed in nominal Malawi kwachas increased significantly in 1995, 1996 and 1999. However, expressed in current US dollars, completely different rates of change in GDP are measured – measured thus, GDP at both factor cost and market prices declined sharply in 1994, 1998 and 2000. Growth rates in GDP in terms of Malawi kwachas and US dollars are significantly different due to changes in the exchange rate of the Malawi kwacha (EIU, 2002a).

Graph 3.2: Average Contribution of Major Sectors to GDP, Malawi 2001



Source: EIU, 2002

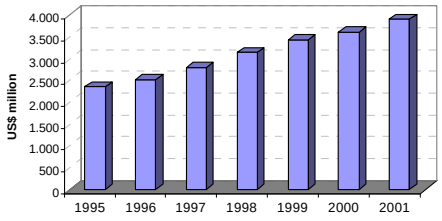
As the EIU (2002a: 21) points out, Malawi's heavy reliance on agriculture, coupled with widespread poverty, causes volatility of production, consumption and saving. These characteristics of Malawi's economy have a negative impact on the country's ability to consistently meet debt-servicing

[6] For instance, more up-to-date information from the World Bank indicate a GDP for the three NDC countries in the year 2000 of U$8.7 billion (Malawi US1.7b, Mozambique US$3.8b, and Zambia US$3.2b) and in 2001 US$8.9 billion (Malawi US1.7b, Mozambique US$3.6b, and Zambia US$3.6b).

requirements and have brought about increasing dependence on international donors.

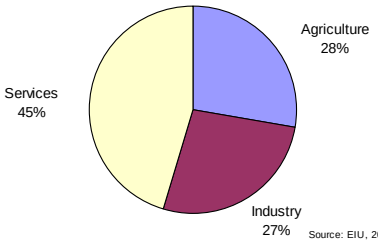
In Mozambique, during the 1980s and the first half of the 1990s, the growth performance of the Mozambican economy was erratic. Between 1981 and 1995, the growth rate of GDP at factor cost ranged from -15% (1983) to 10% (1994). The growth rate of GDP at market prices was equally variable, ranging from -15.7% (1983) to 14,7% (1987). Prior to the floods in the first half of 2000, Mozambique was one of the fastest-growing economies in sub-Saharan Africa (albeit off a very low base). It appears that the impact of the floods has been short-lived and considerably smaller than initially expected. With inflation at a very low level the possibility of overheating is slight, but the balance of payments may become a constraint in view of the high import propensity of the economy. In the longer run, the deficiencies in the country's physical and human capital base will have to be addressed to maintain high rates of economic growth.

Graph 3.3: Gross Domestic Product, Mozambique 1995-2001



Source: EIU, 2002b

Graph 3.4: Average Contribution of Major Sectors to GDP, Mozambique 2001



Source: EIU, 2002b

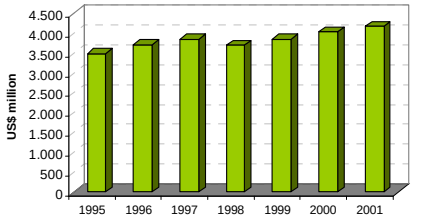
By the standards of sub-Saharan African countries, Mozambique has a well-diversified production structure. The GDP share of agriculture decreased from 34% in 1998 to 29% in 2000 and 28% in 2001.

The extent of diversification of the Mozambican economy is a major risk-mitigating factor. However, several sectors of the economy are small and, consequently, highly dependent on the fortunes of a small number of firms. Viewed from the expenditure side, the main risk factor is Mozambique's heavy dependence on foreign saving to finance its investment and trade gaps (EIU, 2002b).

In Zambia, real GDP per capita declined in 1995 and recovered in 1996 and 1997, but was still about 30% lower than in the early 1980s. Real GDP per capita is believed to have increased in both 2000 and 2001, by 2.3% and 3.1% respectively.

Maize remains Zambia's main crop. After a good harvest of 1.4 million tons in 1996, output fell by 32% in 1997 to 963,000 tons because of prolonged rains and a shortage of fertilizers. Commercial farmers own most of Zambia's prime agricultural land, while almost all subsistence farming land remains under customary and collective tenure. Traditional farmers own 70% of the livestock population.

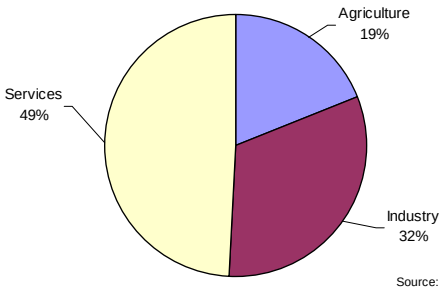
Graph 3.5: Gross Domestic Product, Zambia 1995-2001



Source: EIU, 2002c

Zambia's reliance on mining, especially copper mining, often results in volatile real growth due to production variations in reaction to changing world prices. Greater diversification in the agricultural sector and less dependence on maize should lead to lower risk of debt default. Huge potential with regard to agriculture and mining can still be exploited.

Grapgh 3.6: Average Contribution of Major Sectors to GDP, Zambia 2001



Source: EIU 2002c

3.2.1. Estimating the NDC's Economic Contribution to the GDP

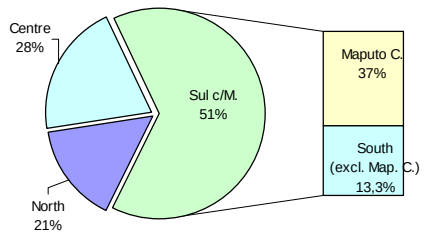
Estimating the proportion of the GDP concentrated in the area of the NDC countries is not easy with the available data. The best that can be done for the time being is a first, though somewhat rough, approximation.

According to the Table 3.1 the area and population in the NDC region of Malawi is 78% and 87%, respectively. This means that most of Malawi's GDP is located in the area directly related to the NDC. Assuming that the real per capita GDP of Malawi ranges from US$160 to US$180, the total contribution of the NDC to the national GDP amounts to about US$1.4-1.6 billion.

For Mozambique, as Graph 3.7 shows there are some data disaggregated by provinces and main regions, which allow to estimate the weight of the economy in the northern and central regions of the country. Graph 3.7 shows that half of Mozambique's GDP is produced by

about 75-80% of the country's population and the surface area. This contrasts with the fact that 25% of the country (including both the population and the are) produces 50% of the GDP; even more striking, the capital of the country, Maputo City, with just 6% of the Mozambican population contributes about 37% to the national GDP.

Graph 3.7. Contribution to the GDP by Region, Mozambique 2000



Source, UNDP 2002

The NDC covers about 40% of the area and 67% of the population in the northern region of Mozambique. Thus, the weight of the economy in the NDC-Mozambique is likely to range from 50 to 55% of the northern GDP, and 10-15% of the national GDP; that is, between US$400 to 450 million.

In relation to Zambia, the area and the population likely to be related to the NDC are estimated to represent 48% and 66%, respectively. Based on the *Zambia Human Development Report 1997*, the average real per capita GDP disaggregated by province was about US$260, ranging from US$148 in the Northern Province to US$472 in Lusaka Province. So, assuming that the real per capita GDP in the NDC region of Zambia ranges from US$260 to US$280, the weigh of its economy may range between US$1.9 to US$2 billion, which means 50-55% of the Zambian GDP.

In short, Table 3.3 summarizes the estimates outlined above regarding the economic weight of the NDC region in the overall GDP of the three NDC countries. If the estimate provided here represents the reality, this means that total weight of the NDC region amounts to 40-50% of the joint GDP.

Table 3.3: Estimating the NDC's Economic Contribution to the GDP of 3 Countries in 2000

	Range of Per capita GDP (in US$)	Estimated GDP of the NDC (in Million US$)	Weight of NDC in the GDP of the 3 Countries
Malawi (national average)	160-180	1.400-1.600	80-95%
Mozambique (northern region)	110-140	430-550	10-15%
Zambia	260-280	1.800-2.000	55-60%
Total Weight of the NDC	**177-200**	**3.600-4.150**	**40%-50%**

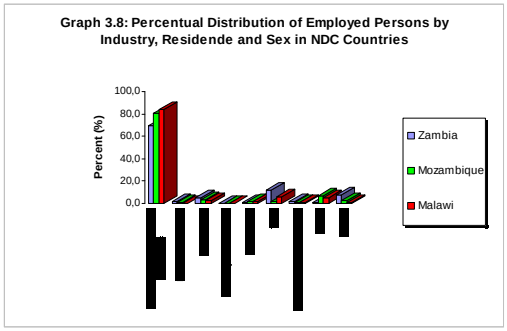
Of course, one cannot immediately conclude that the significant weight of the NDC region in the joint GDP is, or will be directly mostly channelled through the Nacala Corridor.

However, if the Nacala Corridor, particular its infrastructures were improved and become more competitive, a significantly higher proportion of the US$3.6 to US$4 billion wealth produced in the NDC region estimated here can certainly be channelled through the Nacala Corridor.

3.3 Overview on Economic Activity and Employment Opportunities

3.3.1. Demography and Labour in the NDC Countries

In Malawi, the working-age population constitutes just over half the total population, with the result that every 100 people of working age had 92 dependants at mid-1999. However, in 1998 almost 39% of the children in the age group 10 to 14, who are excluded from the working-age population, actually participated in labour activities and they made up 33.0% of the labour force. This phenomenon is related to the prevalence of agriculture, in which no less than 86.6% of the labour force was involved in 1990. The All Africa News Agency reported on 8 August 2000 that a recent survey conducted by the Malawi Congress of Trade Unions (MCTU) confirmed that child labour is widespread in Malawi, despite the country's ratification of the United Nations Convention on Child Labour. The MCTU found that the problem of child labour is very serious in most tea and tobacco estates. Parents and employers force children to work under extreme conditions such as intense heat, smell and chemical effects. MCTU President Ken Mhango says child labour is the result of poverty, the HIV-AIDS pandemic, cultural beliefs and other socio-economic problems. Labour Minister Peter Chupa says the government and the trade unions will track down companies and estate owners who employ children as workers, thereby depriving them of education.



The working-age population increased by 2.3% per annum from 1987 to 1998, while the labour force participation rate, which had been declining

gradually, increased from 96.6% to 99.1%, with the result that the labour force grew by 2.5% per year over the same period. No trustworthy statistic of total employment could be found and at any rate the meaning of employment and unemployment is unclear in the context of less developed countries. It is nevertheless obvious that the total number of employment opportunities had to grow at 2.5% per year in order to absorb net newcomers to the labour force. Unemployment is a major contributor to the poverty problem and job creation is a major challenge to the policymakers in Malawi.

Migratory labour has augmented income from domestic production for many years, and thousands of migratory workers seek employment in other countries, particularly South Africa. Ironically, in July 2000 the Malawi government expressed concern over the increasing number of foreigners employed in the country's private sector at the expense of unemployed locals.

Table 3.4: Demography and Labour in the NDC Countries

	Malawi			Mozambique			Zambia		
Variable	**1980**	**1990**	**2001**	**1980**	**1990**	**2001**	**1980**	**1990**	**2001**
Population (million)	6.2	8.5	10.4	12.1	13.9	17.7	5.7	7.8	10.3
Population growth (annual %)		1.9	1.9		1.4	2.4		3.0	2.1
Fertility rate, total (births per woman)	7.6	7.0		6.5	6.5		7.0	6.3	
Birth rate, crude (per 1,000 people)	55.0	50.9		45.6	45.2		50.0	45.7	
Death rate, crude (per 1,000 people)	22.6	21.5		20.4	18.8		15.5	14.7	
Life expectancy at birth (years)	44.2	44.6		44.0	43.4		50.5	49.1	
Infant mortality rate (per 1,000 live births)	168.6	135.4		155.2	138.0		90.4	107.3	
Child mortality rate (under 5, per 1,000 live births)	265.0			285.0	221.7		149.0		
Population density (per km^2, excluding inland water)	65.6	89.7	110.5	15.2	17.4	22.1	7.6	10.3	13.6
Urban population (% of total)	9.1	11.8		13.1	26.6		39.8	42.0	
Working age population (persons aged 15-64, million)	3.1	4.3	5.5	6.5	7.3	9.3	2.8	3.8	5.4
Age dependency ratio (dependants to working-age population)	0.99	0.99	0.91	0.87	0.91	0.90	1.07	1.06	0.89
Participation rate (labour force to working-age population, %)	99.5	97.3	99.8	103.1	102.9	106.7	86.7	86.2	81.1
Labour force (million)	3.1	4.1	5.4	6.7	7.5	9.9	2.4	3.3	4.4
Labour force, children 10-14 (% of labour force)	45.2	39.2		39.5	35.2		19.0	16.9	
Labour force, children 10-14 (% of age group)	47.6			50.1	42.8		16.1	14.4	
Adult literacy rate	44.5	51.8		27.2	32.9		52.5	72.8	

Source: EIU, 2002a, 2002b, 2002c.

Still in Malawi, but regarding the labour market institutions, a new Labour Relations Act (No 16 of 1996) came into operation on 1 December 1997, replacing the Trade Unions Act and the Trade Disputes (Arbitration and Settlement) Act. The new act provides for and seeks to encourage collective bargaining, to promote sound labour relations, and

attain orderly and expeditious dispute settlement through peaceful means. Preparations are being made for the establishment of the Industrial Relations Court, which will have jurisdiction over labour disputes not resolved through conciliation. A new Employment Act to regulate individual employee-employer relations has been drafted with technical assistance from the International Labour Organization and is currently under consideration by government, employers, employees and other stakeholders.

A number of sector specific trade unions and employer's organizations have been formed for collective bargaining, following the granting of freedom of association in both the Republican Constitution and the Labour Relations Act. Thirteen registered trade unions are affiliated to the MCTU. Employers have formed the Employers Consultative Association of Malawi (ECAM).

During 1997/98 almost all industries were affected by strikes. The 25 officially reported strikes involved 16,434 employees and resulted in a loss of approximately 460,000 man-hours during the year.

In Mozambique, in 1997 the working-age population (i.e. persons aged 15-64) and the labour force totalled 8.4 million and 9.1 million respectively. More than 40% of all children in the 10-14 age-group were part of the labour force, while every 100 members of the working-age population had 91 dependants. We estimate that the working-age population has increased by about 2.7% per annum from 1997 to 2000. According to the 1997 census, some 81% of the economically active population are employed in agriculture, forestry or fishing. Commercial and financial services accommodate about 7% of the workers, and manufacturing and construction a further 5%. The extent of unemployment is uncertain.

Important private sector organizations are the Commercial Association of Mozambique and the Mozambique Chamber of Commerce. The Constitution of 1990 guarantees the right to form trade unions and to strike. The main trade union federation is the Mozambique Workers' Organization (OTM), which in recent years has been a prominent critic of the government's market-based reforms. Until recently, industrial unrest has been comparatively rare, with the Forum for Social Consultation proving an effective vehicle for tripartite discussion of labour regulations and other development issues. Labour Tribunals handle disputes between employers and employees.

In recent years, the level of wages has become an increasingly emotive issue in Mozambique. At present the minimum wage is MM568,980 (about US$37). This is low, even by SADC standards, but so are skill levels and worker productivity. At the beginning of the annual tripartite negotiations about the adjustment of the minimum wage in 2000, the OTM argued that the then minimum wage of MM450,000 was well below

the monthly cost of a basic basket of foodstuffs for a family of five, estimated at MM1,100,000. A general strike loomed during the second half of July as the government offered an increase of 16% and the OTM demanded 30%. In the end a strike was averted when the government increased its offer to 26%, but the scene may well be set for increased labour militancy in coming years.

Finally, in Zambia the population in the age group 15 to 64 years totalled about 5 million in 1999. This resulted in a working-age dependency ratio of 92 in 1999 (i.e. every 100 people of working age had 92 dependants). However, about 16% (down from 19% in 1980) of the children in the age group 10 to 14, who are excluded from the working-age population, actually participated in labour activities. This phenomenon is related to the prevalence of agriculture, particularly on smallholdings. In 1999 the labour force totalled about 4.2 million and is expected to increase to about 4.4 million in 2001. There is a serious lack of formal employment in the cities and unemployment is estimated to be massive. The result is a huge informal sector as thousands of people seek a living on the streets.

3.3.2 Living Conditions and Employment Situation with particular focus on the NDC Mozambique

The wage labour force and employment trends

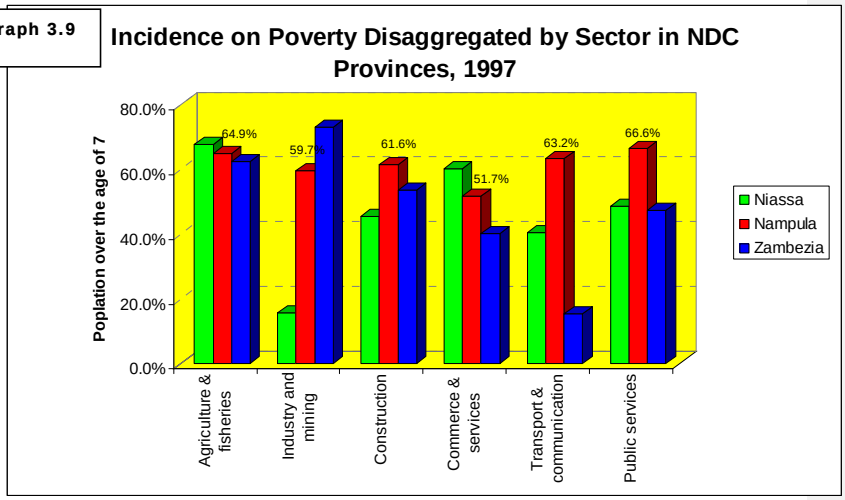
On the basis of the Household Survey on Living Conditions (IAF, 1996-97), it was possible to calculate tentatively the size of the country's waged labour force. According to the 1997 census, the total population was estimated at over 16 million people (INE, 1997). The economically active population was estimated at 7.4 million. On basis of estimate drawn up by the Understanding Poverty and Well Being in Mozambique: The First National Assessment, around 10% of these 7.4 million people can be defined as working for wag o some form of payment during the week preceding the interview (NHDR, 1999:53).

In order to understanding the potential importance that wage labour could have in poverty alleviation in Mozambique, and particularly in the NDC provinces, this section address the employment status of the population according to their level of per capita expenditure (those that made possible the calculation of poverty line across provinces). The population is categorized into two groups, the ultra-poor and the non-poor. The former are those representatives of the first quintile of per capita consumption, that is, those with the lowest level of per capital consumption, while the latter are those with the highest level of per capita expenditure.

Firstly the section addresses the incidence of poverty disaggregated by sector for NDC provinces, then the employment status in urban areas of the NDC provinces will be analysed, finally a snapshot of the distribution of employment by area of residence in the urban areas of the NDC provinces.

Graph 3.9

Incidence on Poverty Disaggregated by Sector in NDC Provinces, 1997



Source: Adapted from the Provincial Poverty and Human Development Profiles, 2000.

The Graph 3.9 shows the incidence of poverty disaggregated by sector. The incidence of poverty among sector varies largely across provinces. For example, in Nampula , the incidence of poverty in different categories of activity is extremely critical. On average, more than 60% of the populations employed in the mentioned sectors are poor. Public services transport and communication, construction and agriculture and fisheries are more critically sector in terms of incidence of poverty.

Table 3.5: Employment Status in the Urban Areas of the NDC Provinces

	Niassa		Nampula		Zambezia	
	Ultra poor	Non Poor	Ultra poor	Non Poor	Ultra poor	Non poor
Worked for some form o payment	59.8%	67.6%	56.1%	74.1%	35.8%	57.0%
Helping without payment	0.7%	1.6%	10.8%	5.5%	20.4%	21.4%
Did domestic work	11.8%	17.0%	22.5%	10.3%	20.6%	12.4%
Student	2.2%	4.7%	3.2%	5.4%	7.0%	2.7%
Other	25.4%	9.0%	7.4%	4.7%	16.2%	6.5%

Source: Ministry of Planning and Finance., 2000. *Provincial Poverty and Human Development Profiles, Niassa, Nampula and Zambezia, 2000.*

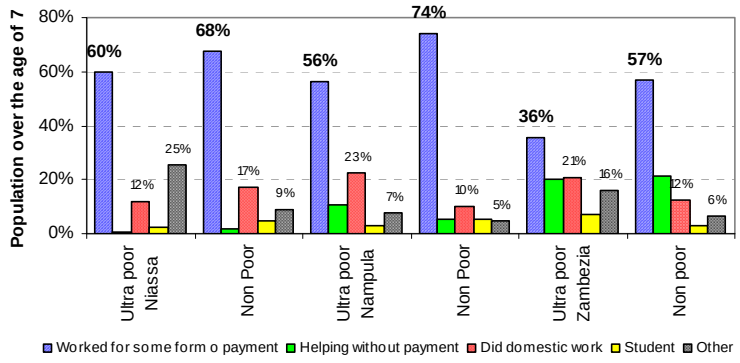
Zambezia and Niassa presents a different picture of the incidence of poverty according to sector if compare with Nampula. The percentage of poor employed in transport and services are below 40% in Niassa and 16% in Zambezia, respectively.

Graph below shows the employment status in the urban areas of the NDC provinces. These results are based on the reply to the question: "What was your employment status in the last week?":

> At national level only 44% of respondents worked for some form of payment during this reference period. Students amounted to 20%, while 16,9% worked for family without payment and 7,8% did domestic work without pay. These four categories make up nearly 90% of the replies. Of remaining 10%, 8,3% of respondents, notably young people and the elderly, indicated " other" while only 0,8% considered themselves as unemployed and 0,9% where employed in the previous week, but did not work because of holiday leave or sickness (MPF/IFPRI 1998:70)*" (NHDR, 1999:55).*

According to the Graph 3.10, the proportion of non-poor that worked for some form of payment is higher than for ultra poor. When looking at the case of Nampula, 74,1% of non poor worked for some form of payment, against 56,1% for ultra poor; 22,5% of the ultra poor replied that they did domestic work in the previous week, compared with 10,3% for non poor. The category other includes young people and the elderly. In Nampula, the proportion of people include in this category is higher for ultra poor compared with non poor, 7,4 % against 4,7%.

Graph 3.10: Employment Status in Urban Areas in NDC Provinces, 1997



Source: Adapted from the Provincial Poverty and Human Development Profiles, 2000

The data on employment are also disaggregated by sector: agriculture and fisheries, industry and mining, construction, commerce and services, transport and communications and public services. The

situation plotted in the graph below provides a general idea of the distribution of the employment in the urban areas according to the level of per capita expenditure.

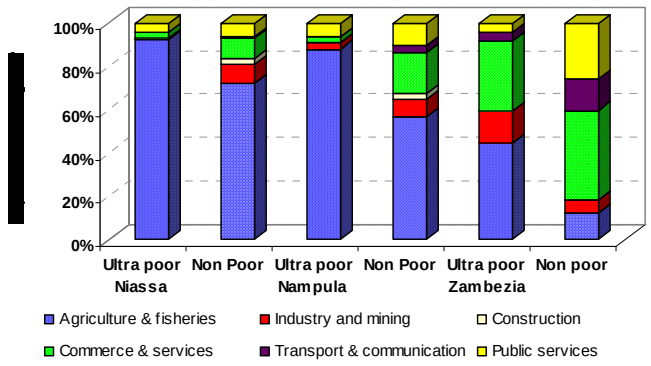
At national level, in rural areas, 95% of the labour force is employed in agriculture with the ultra-poor and poor more likely to be employed in this sector than the non-poor. The non-poor, by contrast, is more likely to be employed in the sectors commerce and services or public services sectors. (NHDR, 1999:55).

In the Mozambican NDC provinces, the ultra-poor are more likely to be employed in agriculture and fisheries than the non-poor. In Nampula, more than 80% of the ultra-poor are employed in agriculture and fisheries sectors, compared with 50% of the non-poor. The sectors like commerce and services, transport and communications, public services and construction are more representative of the non-poor population in the urban areas, across the provinces considered. Commerce and service sector, play a critically role as a source of income for the non-poor population in the urban areas, in Nampula, about 20% on the non-poor are employed in commerce and services sectors. This situation highlights the particular contribution on the informal sector in those regions. In Zambezia, the non-poor is more likely to be employed in commerce and service sectors as the ultra-poor.

On the basis of the analysis highlighted on this section, it's possible to drawn up tentatively the following conclusions regarding the employment status in the NDC provinces:

- The income generation of the economically active population is chiefly derived from agriculture and fishing sectors in the NDC provinces. More than two thirds of the economically active populations in these provinces are employed in the primary sector. However, as well known, agriculture is an activity

Graph 3.11: Ditribution of Employment by Industry in Urban Areas of the NDC Provinces, 1997



Source: Adapted from Porvincial Poverty and Human Development Profiles, 2000

intrinsically embodied with higher risks and uncertainty returns. One possible contribution of the NDC projects in the revitalizations of the locally economy would be to pay attention on how to reinforce the market infrastructure needed to increase competitiveness of the locally agriculture market, through the increase of productivity as well as the intra and inter sectoral linkages of a broad range of the primary and secondary activities of the locally economy.

- The distribution of the employment according the level of per capita expenditure shows that agriculture is an important source of income for the urban population over the age of 7 representatives of ultra-poor as well as non-poor. Non-poor in urban areas is more likely to be employed in commerce and services sectors than the ultra-poor. Informal market is a widespread phenomenon in the NDC provinces, with higher incidence in Zambezia and Nampula provinces.
- Projects with focus on the natural endowments of the NDC region could be of strategically importance for the specialization of the locally economy according to the comparative advantage, particularly in the following sectors: agriculture and fisheries, transports, and industry and mining.

3.4 Social Infrastructure in NDC Countries

3.4.1 Social infrastructure in Malawi

Table 3.6: Social Infrastructures in Malawi, 1980-1997

Variable	1980	1985	1990	1995	1997
Human Development Index (rank among 174 or 175 countries)				161	159
Education					
Primary education: pupils ('000)	810	943	1,401	2,861	
Primary education: teachers ('000)	13	15	23	46	
Pupil-teacher ratio, primary	65	61	61	62	
School enrolment, primary, female (% gross)	48	52	62	128	
School enrolment, primary, male (% gross)	72	68	74	142	
School enrolment, primary, total (% gross)	60	60	68	135	
Education: Progression to secondary school (%)	8	8			
Secondary education: general pupils ('000)	18.0	25.2	31.5	48.3	
Secondary education: pupils ('000)				49.4	2.3
School enrolment, secondary (% gross)	3.0	4.0	4.0		
School enrolment, tertiary (% gross)	0.6	0.6	0.7		
Public spending on education, total (% of GNP, UNESCO)	3.4	3.5	3.3		
Health					
Hospital beds (per 1,000 people)			1.55		
Immunisation, DPT (% of children under 12 months)	58	52	87	98	
Immunisation, measles (% of children under 12 months)	49	49	81	99	
Physicians ('000)			0.2		
Hospital beds ('000)			13.2		
Physicians (per 1 million people)			22		
Hospital beds (per 1 million people)			1,560		
Births attended by health staff (% of total)		59	50		
Access to sanitation, urban (% of urban population)		60		53	
Health expenditure, public (% of GDP)				2.3	
Estimated number of people living with HIV/AIDS, adults ('000)					670
Estimated number of people living with HIV/AIDS, children ('000)					42
Sero-prevalence of adult HIV infection (per 100,000)					14.9
Sero-prevalence of children HIV infection (per 100)					0.9
Sources: World Bank, UNDP					

Education

Primary school enrolment increased sharply in 1994/95 when the government eliminated fees on primary education. According to the

World Bank's *World Development Indicators*, the number of teachers also increased sharply, thereby reducing the pupil-teacher ratio. However, the ESAF policy paper indicates that the pupil-teacher ratio rose and caused a decline in the quality of education. The paper further indicates that the capacity of secondary schools has remained extremely low and there is a dearth of non-formal education facilities for out-of-school youth and illiterate adults. Faced with multiple requirements, the government planned to develop a clear prioritisation of tasks. It aimed to update the 1995 investment framework for the sector by end-March 1999 and to integrate this framework into the medium-term expenditure framework (MTEF – see section 13). The government designated education as a priority area and aimed to raise the quality of education by ensuring adequate funding for instructional materials, providing infrastructure and establishing a medium-term program for teacher development. In the area of secondary education, the government commissioned a study to review tuition fees and is in the process of building 31 more schools by 2003. It is also reviewing the management of distance secondary education and is developing a mechanism to regulate the management of private institutions in primary and secondary education.

Health

With only 60% of the population having access to safe water (section 6) and 53% to sanitation, health risks in Malawi are high. Chronic malnutrition is also a serious problem, with 28% of children under five years of age deemed to be malnourished. The infant mortality rate (the number of children dying before their first birthday per 1,000 births) was 133 in 1997 (sec 5). Although better than the 169 recorded in 1980, this was the second highest figure in the world, behind only Guinea-Bissau. The child mortality rate (the number of children aged under five years dying per 1,000 births), was 224 (sec 5). This compares unfavourably even with other countries in the region such as Kenya (with a rate of 90), Tanzania (136) and Zimbabwe (86). Maternal mortality is particularly high, at 620 deaths per 100,000 births. Life expectancy, already the lowest in Southern Africa at 43 years (sec 5), is set to drop further as the HIV-AIDS pandemic begins to take a greater toll. The primary cause of these dismal figures is poor nutrition and lack of access to clean drinking water. Other contributory factors include the dearth of hospitals, clinics, doctors, nurses and trained health workers in the country. Although health indicators are generally better in the urban centres of Blantyre and Lilongwe, the poor general state of health has a direct impact on the productivity of the workforce.

The incidence of HIV/AIDS in Malawi is among the highest in sub-Saharan Africa. In urban areas the prevalence of HIV among pregnant

women attending clinics in 1998 was estimated at 33%. There is evidence that urban and educated segments of the population are disproportionately affected, which is expected to affect productivity in the future. For example, the Pan African News Agency reported on 9 August 2000 that parliamentary speaker Sam Mpasu said that 29 members of parliament had died of AIDS-related illnesses from 1994 to 1999. According to the same report, 14% of the population have HIV, the virus that causes AIDS. If the figure is correct, the percentage almost doubled from 7.3% in 1997 (calculated from tables 16.1 and 16.3). The report states that 365,000 people had died since the first case of AIDS was discovered in 1985.

The ESAF policy paper stated that, in view of the many health-related requirements, the government planned to complete by April 1999 a comprehensive Health Strategy and Investment Framework, which would be integrated into the MTEF. The strategy would emphasise primary health care services through the implementation of a so-called "essential health package" (EHP), including an expanded program of immunisation, reproductive health and nutrition. To raise the effectiveness of the EHP and provide coverage to the 20% of the population without access to health facilities, the government planned to ensure an adequate supply of drugs by establishing community-run Revolving Drug Funds. About 1,120 such funds (about 40% of the total) must be operational by December 2000. The funds are aimed at guaranteeing drug supply for dealing with common diseases in community areas. Fees would be charged according to family income.

As regards funding, the health sector has been accorded priority status, although it is anticipated that budgetary allocations will not be able to fully satisfy the cost of the envisaged programs. Accordingly, the government will introduce a graduated cost recovery system (starting with the specialist referral hospitals and district facilities). It will also ensure payment by patients in private hospital wards and revise regularly the fee schedule for such patients to gradually achieve full cost recovery.

Poverty reduction and safety nets

The ESAF policy paper envisaged that the government would continue to address the need for targeted intervention and safety nets through initiatives under the Poverty Alleviation Program (PAP) on several fronts. Particularly important is the implementation of the Malawi Social Action Fund (MASAF) project, a quick-disbursing instrument supporting development initiatives at grassroots level.

Risk implications

The resource requirements for the plans envisaged in respect of social infrastructure are daunting. Once the plans are completed, resources required for their implementation will place tremendous pressure on government finance and administrative capacity. These issues raise concern as to the government's debt-servicing ability.

3.4.2 Social infrastructure in Mozambique

Table 3.7: Social Infrastructure in Mozambique, 1980-1998

Variable	1980	1990	1995	1997	1998
Human Development Index (rank among 174 or 175 countries)			166	169	168
Education					
Primary education: pupils ('000)	1467	1,377	1,418	1,711	1,900
Primary education: teachers ('000)	19	23	25	30	33
Pupil-teacher ratio, primary	77	60	56	57	58
School enrolment, primary, female (% gross)	84	57	48		
School enrolment, primary, male (% gross)	114	76	67		
School enrolment, primary, total (% gross)	99	67	58		
Education: progression to secondary school (%)					
Secondary education: pupils ('000)	34.0	67.2	81.9	104.4	117.7
Secondary education, vocational pupils (% of total)	40.4	14.8	16.9	13.9	12.4
Secondary education: teachers ('000)		2.0	1.9	2.2	
Pupil-teacher ratio, secondary		34	44	48	
School enrolment, secondary (% gross)	5.0	8.0	7.0		
School enrolment, tertiary (% gross)	0.1		0.4		
Public spending on education, total (% of GNI, UNESCO)	4.4	6.3			
Health					
Immunisation, DPT (% of children under 12 months)		46	55		
Immunisation, measles (% of children under 12 months)		59	65		
Physicians ('000)	0.31				
Nurses ('000)	2.6				
Hospital beds ('000)	13.2	12.3			
Physicians (per 1 million people)	25				
Nurses (per 1 million people)	215				
Hospital beds (per 1 million people)	1087	882			
Births attended by health staff (% of total)		29			
Access to sanitation (% of total population)					
Health expenditure, public (% of GDP)		4.4			
Estimated number of people living with HIV/AIDS, adults ('000)				1200	
Estimated number of people living with HIV/AIDS, children ('000)				54	
Sero-prevalence of adult HIV infection (per 100 000)				14.2	
Sero-prevalence of children HIV infection (per 100)				0.6	

Sources: World Bank, UNDP

Human development

Mozambique was ranked 168th among 175 states in 1998 according to the Human Development Index published by the United Nations Development Programme (UNDP) in July 1999. The index is compiled from data on longevity, knowledge and standard of living. Mozambique moved up one position from the ranking published in the 1998 *Human Development Report*, that is, from 169th to 168th.

Education

The education of Mozambicans was badly neglected during the colonial period and at independence more than 90% of the population were illiterate. After 1975, the Frelimo government devoted considerable resources to education and adult literacy campaigns, but progress was halted during the civil war, when rural schools were prime targets for rebel attacks. By the end of the war, 60% of the primary school network (some 5,700 schools) had been destroyed or closed. Primary school enrolment dropped from about 1.4 million in 1980 to about 1.3 million in 1992. In recent years, education policy has been focused on rebuilding the primary school network and increasing especially primary school enrolment rates. These efforts met with considerable success: between 1992 and 1998 the number of primary school classrooms was increased by 60% to surpass the pre-war level, while the gross enrolment ratio increased from 58% in 1994 to 79% in 1998. However, much remains to be done. The literacy rate remains extremely low (about 40% in 1997) and at present the average Mozambican has received a mere 1.6 years of formal schooling. The high ratio between the numbers of primary school and secondary school students indicates that very few students continue their studies beyond the primary level. Capacity constraints have meant that indicators of educational quality have not risen as rapidly as the expansion of coverage.

At present, education is compulsory for a seven-year period from the age of seven. The primary cycle lasts for seven years and is followed by a secondary cycle of five years. The government has initiated the Education Sector Strategic Programme (ESSP) to give effect to its Strategic Education Plan for the period 1999-2003. The aim of this plan is to raise the education level of the Mozambican population by increasing the access to and improving the quality of education.

The government is developing complementary strategies for tertiary education and technical and vocational education. These strategies will be particularly important in view of the rapidly increasing demand for skilled labour in the Mozambican economy.

Health

The health care system suffered severe decline during the civil war. By late 1992, one in three health posts and one in five health centres were destroyed or non-operational, leaving a ratio of one health post for every 12,000 people. The effect of a lack of resources and the destruction of a large portion of the existing facilities is clearly visible in various health indicators. In 1994, the life expectancy at birth was 46 years (compared to averages of 52 years for sub-Saharan Africa and 51 years for all developing countries). In 1995 the percentages of the population with access to safe water and sanitation were 24% and 23% respectively (the corresponding percentages for low-income countries were 69% and 29%).The government adopted the Health Sector Recovery Programme in 1995. Its broad objectives are to improve the access to and the quality of health services, with special attention to rural areas. Key measures and strategies include the rehabilitation and construction of first-level care facilities and rural hospitals, the provision of adequate medical supplies, the improvement of institutional and management capacity at the Ministry of Health, and the development of human resources in the medical sector through the training of health workers and enhancement of university medical training. Quantitative indicators used to monitor progress show that access to health services is improving: From 1995 to 1998 DPT vaccination coverage increased from 55% to 70% and antenatal care coverage from 63% to 85%. Quality improvements are also evident, e.g. in the proportion of health facilities staffed with trained personnel and the proportion of first-level health facilities stocked with essential drugs. Despite these improvements, the health profile of the Mozambican population remains poor compared to those of the vast majority of developing countries in sub-Saharan Africa and other parts of the world.

The government is committed to completing and beginning to implement a new Health Sector Strategic Plan by December 2000. This plan will establish sectoral policies, programmes and targets for the new decade. It is also envisaged that a National Multisector Strategic Plan for the combating of HIV/Aids will be finalised by mid-2000.

Social security

The public sector and the National Social Security Institute maintain pension schemes. In terms of the 1992 peace agreement, the government has to pay pensions to demobilised soldiers. As a result of this commitment, government pension payments have recently substantially exceeded contributions by workers. The government therefore decided to assess the long-term viability of the public sector and the National Social Security Institute schemes and actuarial assessments are under way.

Poverty

The recent upward adjustment of the GDP (see section 8) has not changed the fact that Mozambique is one of the poorest countries in the world. An important government report entitled *Understanding poverty and wellbeing in Mozambique: the first national assessment 1996/97* was released in the second half of 1999. It indicates that 69.4% of the Mozambican population live in poverty. The incidence of poverty is higher in rural areas (71%) than in urban areas (62%). Region-wise, the centrally located provinces controlled by Renamo exhibit more poverty than the southern areas. The government is increasing its focus on poverty reduction. A poverty action plan was released in June 1999, along with new guidelines for the government's poverty reduction strategy. The cornerstones of the strategy are better and more extensive provision of social services, the maintenance of macroeconomic stability and the establishment of an enabling environment for rapid private-sector growth.

Risk implications

Government efforts to improve the education and health systems are bearing fruit, but facilities remain poor following large-scale destruction during the civil war. The resulting unsatisfactory education and health profiles of the population are major constraints to the future growth potential of the Mozambican economy. The high incidence of poverty is also worrying. The economic gains of the past decade can come under threat if the poor come to see themselves as excluded from the benefits of economic growth.

3.4.3 Social infrastructure in Zambia

Table 3.8: Social Infrastructure in Zambia, 1980-1998

Variable	1980	1990	1995	1996	1997	1998
Human Development Index (rank among 174 or 175 countries)			146		151	153
Education						
Primary education: pupils ('000)	1,042	1,461	1,508			
Primary education: teachers ('000)	21	33	37			
Pupil-teacher ratio, primary	49	44	41			
School enrolment, primary, female (% gross)	83		88	86		
School enrolment, primary, male (% gross)	97		94	92		
School enrolment, primary, total (% gross)	90	98	91	89		
Education: Progression to secondary school (%)	20					
Secondary education: general pupils ('000)	95.8		199.1			
Secondary education: pupils ('000)						
School enrolment, secondary (% gross)	16.0					
School enrolment, tertiary (% gross)	1.5	2.3	2.5			
Public spending on education, total (% of GNP, UNESCO)	4.5	2.6				
Health						
Immunisation, DPT (% of children under 12 months)		71	86	76		
Immunisation, measles (% of children under 12 months)		68	89	78		
Physicians ('000)	0.43	0.71				
Nurses ('000)						
Hospital beds ('000)						
Physicians (per 1 million people)	76	92				
Nurses (per 1 million people)						
Hospital beds (per 1 million people)		0				
Births attended by health staff (% of total)		43				
Access to sanitation (% of total population)			23			
Access to sanitation, urban (% of urban population)			23			
Health expenditure, public (% of GDP)		2.6	2.4			
Estimated number of people living with HIV/AIDS, adults ('000)					730	
Estimated number of people living with HIV/AIDS, children ('000)					41	
Sero-prevalence of adult HIV infection (per 100 000)					19.1	
Sero-prevalence of children HIV infection (per 100)					0.9	
Sources: World Bank, UNDP						

In 1998, Zambia was ranked 153rd among 175 states according to the Human Development Index published by the United Nations Development Programme (UNDP) in 2000. The index is compiled from data on longevity, knowledge and standard of living. Zambia moved down seven positions in the ranking, from 146 in 1995, published in the 1997 Human Development Report. Data revisions and changes in the method of calculation introduced in the 1999 Report caused some

countries to move one or more positions in the ranking, but in Zambia's case the movement can be attributed to actual degeneration in the relative level of human welfare.

Education

Primary education is free in Zambia and some 90% of children in the primary school age group are enrolled. Enrolment drops to some 28% in the secondary school age group, while only 2.5% of the 20 to 24 age group are studying at the tertiary level. The primary pupil-teacher ratio was a high 41 in 1995 compared to the world average of 32. Dropout rates are very high, while a lack of facilities, transport and a shortage of teachers hamper education in the rural areas. Zambia has two universities, the University of Zambia and the Copperbelt University in Kitwe. However, the emphasis at this level remains on the arts and social sciences, with fewer than 40% of graduates being in technical, scientific, medical, agricultural or managerial areas. There are also several technical schools and 14 teacher training colleges. Of total estimated budgetary expenditure by the central government, education was allocated 9.4% in 1995. Public expenditure on education as a percentage of GNP fell from 4.5% in 1980 to a mere 1.8% in 1995. In March 1997 the government announced that it aimed to cease funding the two universities and urged them to start income-generating projects instead. Despite ongoing negotiations it is apparent that the government is serious about its intention in this regard.

In May 1996, the government approved a new national education policy to increase access to education, strengthen the capacity to provide quality education, and rationalise the use of resources. The education system will be liberalised and decentralised, with local governance assuming a more prominent role and ultimately replacing the existing highly centralised system. The new system involves the creation of Education Boards at district, school, and college levels. Its overall objective for 2000 and 2001 is to improve access to, as well as the quality of the education system. An urgent priority is to take action to obtain more equity between urban and rural areas.

Health

Zambia made significant progress after independence (1964) with regard to its health system. At independence, health services were almost exclusively confined to towns, with only 88 doctors per million people. By 1985 this figure had risen to 141. Life expectancy at birth declined from 50.5 in 1980 to 43.4 in 1996, mainly due to the

devastating effects of AIDS. Since the mid-1980s economic difficulties resulted in the deterioration of the health system. Hospitals and clinics deteriorated significantly and there were severe shortages of drugs, equipment and staff. By the late 1980s almost half the established posts for doctors were vacant and the number of doctors per million people declined to 92 in 1990. In 1994 the government launched a largely donor-funded four-year health reform programme with the emphasis on primary health care. The new clinics in urban areas have proved particularly successful. The introduction of user fees has generated much needed new revenue and reduced the demand for the services of the health system.

A major conference during mid-September 1999 in Lusaka on the spread of HIV in Africa prompted the release of a host of new findings on HIV prevalence. One study found that 770,000 Zambians have AIDS and that 360,000 Zambians are AIDS orphans. One case study found that in the Copperbelt town of Ndola, 30-40% of women and 20-23% of men aged 15-49 are HIV-positive. GDP projections may have to be substantially lowered from 2000 onwards as the disease is especially prevalent among professional people. In 1996, the government set up two committees: one to formulate and distribute HIV-AIDS information and another to monitor the spread of HIV-AIDS.

Statistics published in May 1998 indicate that Zambia has the highest tuberculosis infection rate per head in southern Africa. Of every 100,000 Zambians, 424 are thought to have tuberculosis, compared to 216 in South Africa and only 144 in Tanzania. As tuberculosis and HIV infections are closely linked in sub-Saharan Africa, Zambia's high HIV rate is an important cause of the high incidence of tuberculosis.

The percentage of children (0-1 years) immunised against diphtheria and measles increased from 66% and 36% respectively in 1986 to 76% and 78% in 1996. In June 1998, the government announced that it intended to ensure that 2.1 million children aged between 6 months and 5 years were inoculated against polio in 1998. As a result of similar campaigns over the last 3 years, there have been no new cases of polio in Zambia since 1996. The percentage of the population with access to sanitation facilities was 47% (41% in rural areas) in 1985 and it decreased to 23% (10% in rural areas) in 1995. Only 43% (27% in rural areas) of the total population had access to safe water in 1995. This poses a serious health risk to millions of people in Zambia.

It is the objective of the government to allocate 40% of the health sector budget to district health boards for the delivery of essential services by 1999, and increase this portion to 50% by 2000 and 60% by 2001.

Poverty reduction and safety nets

The United Nations Development Programme (UNDP) report launched in Lusaka in April 1998 found that two-thirds of Zambians were poor and that their living situation had not improved during the 1990s. A report released in July 1998 by the Campaign Against Poverty concurs with the UNDP's overall finding on poverty, and affirmed that the standard of living of many Zambians declined in the 1990s. For example, infant mortality levels increased significantly from 90 deaths per 1,000 births in 1980 to 112 per 1,000 in 1996. Prevalence of child malnutrition, as a percentage of children under 5, was a high 29% in 1996. Chronic malnutrition affects nearly 50% of the poorest rural households and over 40% of the chronically poor in urban areas.

According to World Bank statistics, 68% of the total population in Zambia were living below the poverty line in 1991. This figure drastically increased to 86% in 1993. The percentage of the population living below US$1 a day was 84.6% in 1995. Income distribution is very skewed with the poorest 20% of the population earning 3.9% of the income and the richest 20% earning 50.4% of the income.

Officials of the World Food Programme (WFP) announced in April 2000 that malnutrition was worsening in the country. The WFP and the Ministry of Health were running supplementary feeding programmes for 100,000 people. According to the government, 70% of Zambian households cannot meet their basic nutritional requirements.

The privatisation of ZCCM is leading to massive unemployment because the workforce will be halved in size to about 8,200. The World Bank has committed approximately US$60 million to pay for redundancy packages for the ZCCM workforce.

The government faces growing pressure for a sound anti-poverty strategy to rectify the decline in the standard of living of impoverished Zambians as a result of the economic reforms imposed in the 1990s. The Public Welfare Assistance Scheme (PWAS) is the government's main vehicle for meeting the needs of the poorest, but its coverage and effectiveness have been limited. The World Bank is supporting the government's effort to reform the PWAS, with the aim of making the scheme more community-based. One of the HIPC requirements is that debt relief must be spent on poverty eradication.

Risk implications

The social infrastructure in Zambia is not in a good condition. Daunting amounts of investment are required to eradicate backlogs with regard to the education and health sectors, while poverty has risen to an extremely high level. AIDS is becoming a serious financial threat and an

increased amount of scarce resources will be absorbed in the near future to combat the disease. These issues raise concern as to the government's debt-servicing ability.

3.5 TRANSPORT SYSTEM: Roads, Railways, Ports, Airports, Telecommunications

3.5.1 INFRASTRUCTURE AND TRAFFIC: ROADS, PORTS, RAILWAYS, AIRPORTS, TELECOM

The transport needs of Mozambique are served by four modes of transport: road, rail, coastal shipping and air. Freight and passenger services are provided by all modes, except coastal shipping for passengers. The transport network in Mozambique is comprised of about:

- 28,000kms of classified roads;
- 3,000kms of railways (about 50% of which are operational);
- Five international airports (Maputo, Beira, Nampula, Pemba & Vilankoulus);
- Fourteen secondary airports;
- Three primary ports (Maputo, Beira, Quelimane)
- Fifteen secondary and tertiary ports.

The transport system in the east-west direction is much more developed than in the north-south direction due to the much higher demand on Mozambican's transport to and from the neighbouring South Africa, Rhodesia and Malawi, Swaziland, and Zambia, particularly rail and port services, in the form of transit traffic.

Below a closer examination of the flows by main regions of Mozambique will be presented. For the time being it is it just enough to highlight that transit traffic is important not only to the railway in Mozambique, but also to the country as a whole. In 1977 the transit traffic earned almost 100 million US dollars, more than a quarter of all foreign currency earnings at that time. This earning capacity is very unevenly distributed, as one can infer from the Table 3.9 showing the tonnage traffic by region: south, centre and north.

The provision of domestic transport infrastructure and services reflect the pattern of economic development in the country. Maputo is the major economic and population centre, with Beira, though much smaller, the second city. Thus, both the shipping and air services, which are the major means of long distance transport for goods and people respectively, are based in Maputo. The shipping services quite definitely, and the air services rather less so, can be characterized as predominantly carriers between Maputo and the provinces, with services between provincial centres being of minor importance.

A similar situation can be seen in the road system, with the paved roads being concentrated in the south and the centre. Whilst the network is relatively dense for a country as sparsely populated as Mozambique, it is generally in very poor condition. The vast majority of roads are unpaved, and almost all roads, paved and unpaved, are in bad need of maintenance. As a consequence of the historical tendency to concentrate on east-west links, the asphalt road intended to link north and south is not yet complete.

Table 3.9: Traffic Distribution by Transport Mode

	2000	2001
Freight (million tonne-kilometre)		
Rail	605	774
Sea	203	247
Road	224	245
Air	7	7
Pipeline	233	234
Total	1,272	1,508
Passengers (million passenger-Kilometre)		
Rail	130	142
Sea	2	2
Road	27,029	36681
Air	378	272
Total	27,539	37,097
Harbour traffic ('000 tonne-port)	**6,097**	**7,312**

Source: National Institute of Statistics (INE), Anuário Estatístico 2001.

The Maputo Corridor consists of three components: the port of Maputo, the rail network and the road network. Maputo port is one of the most important on the East African coast, with conditions to allow doc-king by vessels of 100,000 tonne capacity. The installed infrastructure allows handling of 14 million tonnes a year of diverse cargo, including sugar, citrus fruits, cement, steel, coal and petroleum. Its proximity to South Africa's industrial heartland lends it major importance in that country's trade.

The port of Beira plays a dominant role in the export of goods from Zimbabwe, Zambia and Malawi. Its handling capacity is 7.5 million tonnes per year. This port is also an important point of linkage with the pipeline to Zimbabwe. As regards the railway, there is only one line connecting to Zimbabwe, which enables the export of goods from Zambia, Malawi and the Democratic Republic of Congo. The road structure basically includes two roads, which connect to Zimbabwe and Tete province (via Chimoio).

The port of Nacala is regarded as the best deep-water harbour on the East Coast of Africa. It can take ships of any size and plays an important

out role in trade to and from Malawi. The rail network consists of a line linking Malawi to Nacala, with 533 km of it inside Mozambican territory.

Table 3.10: The Three Main Railways Corridors in Mozambique: Nacala, Beira, Maputo

The railway lines of the NACALA corridor are:

- The Nacala – Cuamba – Entre-Lagos line, 610km, to the border of Malawi, fully rehabilitated in 1996
- The Cuamba – Lichinga Line, 262km
- The Lumbo – Monapo line, 42km, not operational

Mozambique, Malawi and Zambia have joined forces on a US$ 24 million project for the Nacala development Corridor, which include the rehabilitation of 77km of railway line from Malawi to Entre Lagos in Mozambique, the construction of a bridge at Chiromo, and the extension of the railway line from Mchinji to Chipata in Zambia.

The railway lines of the BEIRA corridor are:

- The Beira – Machipanda line, 317km, connecting Beira to Zimbabwe
- The Sena Line, 578km, not operational

The Imhamitanga – Marromeu line, 88km, not operational.

The rail corridor consists of three railways:

- Goba line, 75km, connecting Maputo with Swaziland, with the most part rehabilitated in 1995.
- Ressano Garcia line, 78km, connecting Maputo with South Africa. An international consortium led by Spoornet of South Africa signed an agreement with the Mozambique Ports and Railways (CFM) to run, operate and rehabilitate the Ressano Garcia line.

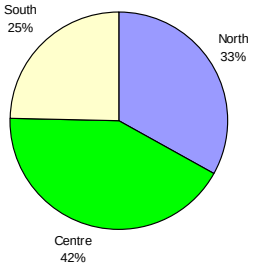
Limpopo line, 534km, connecting Maputo with Zimbabwe, inaugurated in 1993.

Web: www.cfmnet.co.mz

Road Transport System

Mozambique's road network today comprises some 28,463 Km of paved, earth and gravel roads, though a significant part of them were badly damaged or neglected during the country's 17-years of civil conflict. In the middle of the 1970s, at the time of independence of Mozambique, the road network in Mozambique consisted of 26,000 km classified roads. Approximately 4000 km were asphalted and about 500 km constructed gravel roads. The remaining 21 500 km consisted of earth of varying quality - from earth tracks with hardly pass even with 4x4 vehicles to earth roads improved with gravel in reasonable condition.

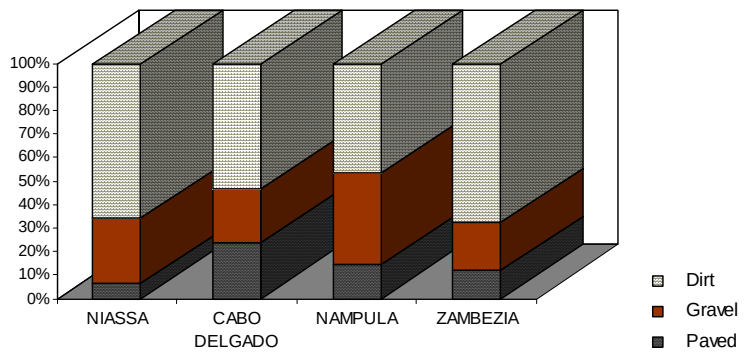
Graph 3.12: Regional distribution of classified roads, Mozambique 2001



Since the independence Mozambique added about 550 kilometres of paved roads to the country then existing roads, but there has been little construction and maintenance since 1982/83. There are presently about 5,270 km. of tarred roads and 2,000 km. of gravel roads.

At the time the peace agreement was signed in 1992, it was estimated that less than 10% of the network was in good condition. The 16,000kms of feeder roads (low traffic tertiary roads) were in particular poor condition, with many being impassable. The poor condition of the

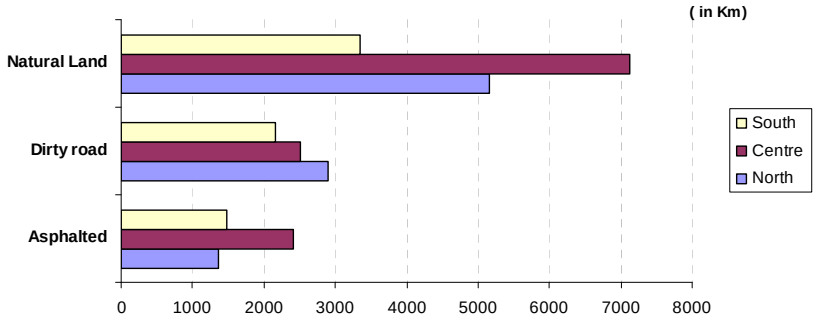
Graph 3.13: Type of surface for classified roads in the NDC Provinces, 2001



roads contributed to high vehicle operating costs, and consequently low

traffic volumes. This was a major constraint to the marketing of farm produce for economic growth generally.

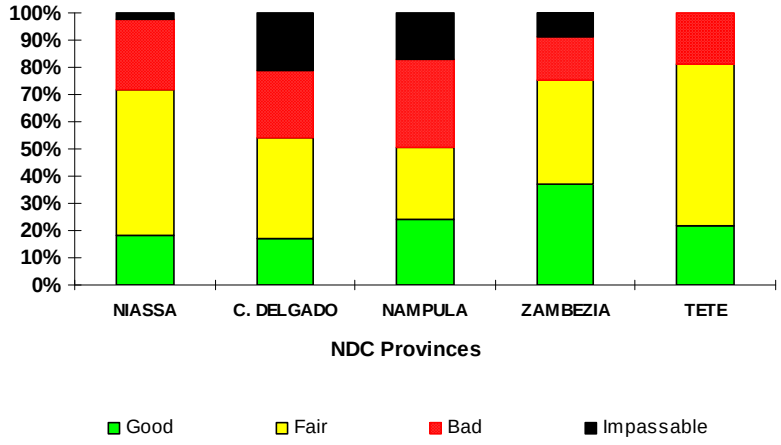
Graph 3.14: Type of roads by region, Mozambique 2001



	Asphalted	Dirty road	Natural Land
South	1486	2163	3349
Centre	2422	2505	7128
North	1361	2893	5156

The backbone of the main road network is the major nor-south route, the Centre-North-East that links the capital in the south with the province of Cabo Delgado the north. It is located quite close to the coast and passes through or close to all provincial capitals but two – Tete and Lichinga.

Graph 3.15: Conditions of Classified Roads in the Wider NDC Provinces, 2001



The Lichinga area is the most difficult to reach by road. Until the 1977 there was only one feasible route to that area (from the south), an earth road impassable wet conditions. In turn, Tables 3.11 and 3.12 details the road types for Nampula province, which is main area on the Nacala Corridor.

Table 3.11: Nampula versus the Country Road Network, 1997-2000

Type of surface (kms)

Type of roads	Nampula Province				Country				Nampula/ Country
	1997	1998	1999	2000	1997	1998	1999	2000	2000
Classified Roads	3615	3707	3902	3609	25466	26235	28959	25339	14,2%
Primary	700	734	734	734	4370	4310	4310	4275	17,2%
Secondary	981	954	954	928	7845,7	8126	8126	7880	11,8%
Terciary	1934	2019	2214	1947	13250,8	13799	16523	13184	14,8%
Unclassified roads	0	0	196	90	0	n.a	2996	3124	2,9%

Source:

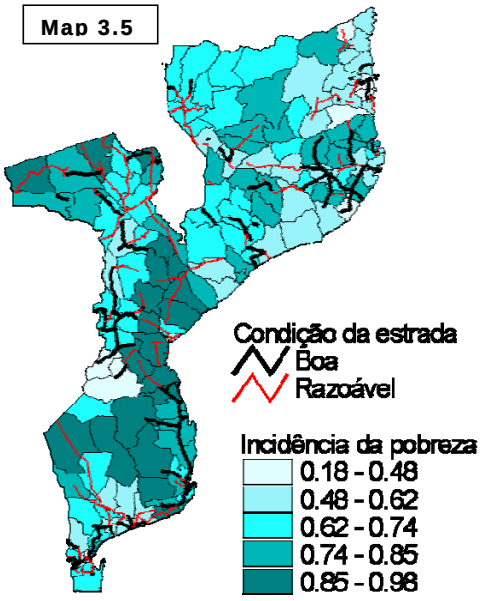
The vehicle fleet in Mozambique is varied, in terms of model, make and type. Older makes and models predominate, but no single make has more than 20% of the market. Mozambique is making efforts to adopt the Southern African Transport & Telecommunications Commission's (SATCC) harmonised standards.

Table 3.12: Extension of Classified Roads by type of Surface (km)

	1997		1998		1999		2000		2000
	Nampula	Country	Nampula	Country	Nampula	Country	Nampula	Country	Nampula/Country
Asphalted	530,3	5285,3	536	5265	536	5266	536	5259	10,2%
Dirty Road	1183,9	8154,4	1168	7441	1392	6879	1432	7561	18,9%
Natural Land	1900,5	12026,8	2003	13529	1974	16814	1732	15663	11,1%
Total	3614,7	25466,5	3707	26235	3902	28959	3700	28463	13,0%

The vehicle fleet in Mozambique was drastically reduced after independence in 1975 due to re-exportation and destruction during the war. The total number of vehicles in 1973 was approximately 75,000. Hence, the vehicle fallen by 25 000 until 1978. Correspondingly the services it rendered to society measured in the total number of hours worked decreased by 30-40% in the period 1973-1976.

Map 3.5



In 1978 the number of passenger cars and vans were around 40 000; the number of trucks between 6000 and 7000, and the number of buses around 1200. While number of trucks decreased heavily from approximately 1 to

approximately 6500, the number of buses remained relatively constant.

The decline of number of vehicles continued until about 1985, when the registered fleet was estimated at only 66,900 vehicles. Since then, the number of vehicles has increased by 5% each year. The fleet is currently dominated by light vehicles (44%), followed by trucks and tractors (36%) and the rest split between buses (6%) and tractors (14%).

Railways: rail transit and domestic flows

The total system, with a line length about 3138Km, consists of six subsystems, which are not linked to another within the country, though the Southern and Central systems are linked through Zimbabwe, and the Central and Northern systems through Malawi.

Mozambique has no single rail network, but five major rail systems that are currently operational. All of the lines terminate at Mozambique's major ports. Management of Mozambique's railway system is currently the responsibility of Mozambique Ports & Railways (CFM), but will shortly be concessioned to the private sector:

Maputo - South Africa (Ressano Garcia Line);

Maputo - Swaziland (Goba Line);

Maputo - Zimbabwe (Limpopo Line);

Beira - Zimbabwe (Beira Corridor Line);

Nacala - Malawi - Nacala Corridor Line).

The railway lines can be divided into two distinct categories. In the first and more important category are the systems, which are cantered on the ports of Maputo, Beira and Nacala. The traffic on these lines accounts for about 99% of the total railway traffic (Graph 4.5). Of this, as point out above, more than two thirds is transit traffic.

Table 3.13: Railways Traffic

(`000 tonnes freight carried)

	1996	2000	2001
Southern region (Maputo)	2,667	2307	2944
Central region (Beira)	1,181	789	886
Northern region (Nacala)	237	351	362
Total	**4,085**	**3454**	**4193**

Tabela 3.14: Amount of Goods on Mozambican Railways

(Ton-Km (million)

	1993	1994	1995	1997	1999	2001	Average	
CFMS	272	323	407	488	438	337	383	
National traffic	30	14	2	10	61	46	30	8%
International traffic	234	309	405	488	377	292	353	92%
CFMC	312	234	269	279	162	255	259	
National traffic	7	8	14	11	7	7	9	3%
International traffic	305	226	255	269	175	248	250	97%
CFMN	67	98	109	117	117	186	113	
National traffic	12	21	29	32	32	24	24	21%
International traffic	55	69	67	85	85	163	89	79%

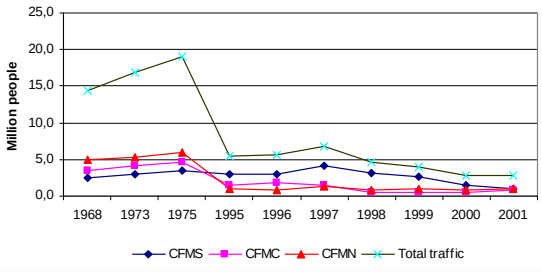
CFMN = Caminhos de Ferro de Moçambique Norte

CFMC = Caminhos de Ferro de Moçambique Centro

CFMS = Caminhos de Ferro de Moçambique Sul

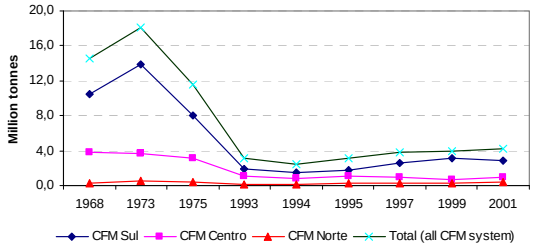
As can be seen from the Table 3.14 and Graph 3.16, the internal traffic in the period 1993-2001 was less than 10% of total rail tonnage. Even at the time of independence, for instance in 1976, when the border with to the former Rhodesia was closed, internal traffic was about 25 times higher than in 1999, when rail traffic reached 10,5 million tones, internal traffic (2599 million tones) was not higher than a quarter of total rail tonnage.

Graph 3.16: Number of Railway Passengers

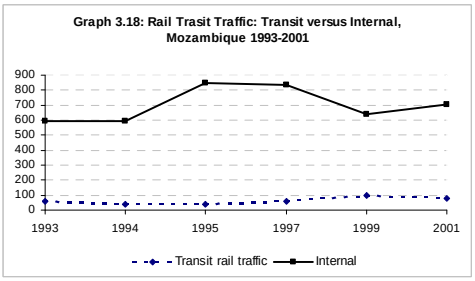


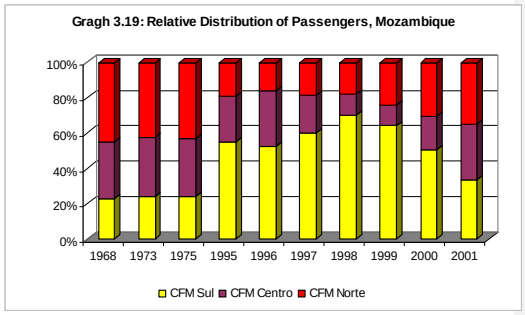
Although Mozambique boasts over 3,000kms of railways, only about 50% is actually operational. Traffic by rail has increased significantly since the early 1990's. Besides other rail lines, such as the Sena line, Cuamba to Lichinga Railway Line –This railway is an important part of the Nacala Development Corridor and provides access for the north/west province of Niassa. The line is largely inoperative at present, however CFM has recently invested US$4m during the first phase of rehabilitation. It is estimated that a further US$4m is required to make the line operational. The Government envisages a concession agreement with investors for the operation of the line.

Graph 3.17: Flow of Goods on Mozambican Railways



CFM-N and the Port of Nacala – CFM-N is the northern rail system linking the Port of Nacala with Malawi and the Malawi railway system. Since the closure of the Sena line this is the only rail connection between Malawi and the Port of Nacala, which is a natural deep-water harbour. The railway and the harbour form the backbone of the Nacala development corridor. In 2001 an agreement was signed for the operations of the CFM-N railway plus the Port of Nacala (terminals as well as maritime services) with the SDCN consortium, which now operates the Malawi railway system. The main sponsors of the consortium include Tertir, Bidvest, Railway Development Corporation, Eldow and local partners. The agreement is for a 15-year extension and is looking for investment of around US$52m.





Ports: Transit and Coastal Shipping

Geographically and hydrographically the ports fall into three distinct areas. The first reaches from the northernmost part of the country down to Ilha de Mozambique. The coastline is characterized by numerous islands and vast bays. These bays provide excellent natural harbours, deep accesses without bars and sheltered anchorage.

The second area reaches from Ilha de Mozambique to Ilha do Bazaruto. It could be characterized as the river zone since the ports in this area are situated on the banks of the rivers. This provides, in fact, the only possibility to establish ports in this area since the coastline is very low, usually sandy or swampy. The access to the harbours in this area is usually rendered difficult by moving bars. This reduces the draught of the ships that can call at the harbours. Thus, with the exception of Beira, they are rather small.

The third area, reaching south from Ilha do Bazaruto, can be described as the lagoon zone. The coast has generally high sand dunes and the

relatively small number of ports in this area has rather complicated access conditions.

In terms of traffic flows and economic importance the ports of Mozambique fall into two groups. The first consists of the major international ports of Maputo, Beira and Nacala with rail connections to other African countries, and the second of the smaller ports, which have only local importance.

Maputo is one of the biggest Ports in Africa. The main wharf is over 3 kilometres long and is equipped with specialised steel, bulk sugar and molasses handling facilities as well as modern cold stores. The neighbouring port of Matola has bulk ore and fuel terminals. Maputo Port has been concessioned to private industry with Maputo Port Development Company (MPDC) owned by Mersey Docks & Harbours being the main player.

Further north Beira's wharf is approx 2 kilometres long and has a general cargo facility, cold stores and molasses handling facilities. It also has a major fuel terminal for both Malawi and Zimbabwe.

Nacala is one of the finest deep water ports in Africa and has a 1 km long wharf. All three ports have roll on roll off facilities, which are presently being upgraded by international donors as well as private investors. Dredging operations are under way and new container terminals are under construction.

The importance of Maputo and Beira ports grew with the construction of the rail links to the interior in the late nineteenth century. Nacala has only had a rail connection to Malawi since 1970, and is of less importance. But while Maputo and Beira have draught limitations, 10 and 12 m respectively under normal circumstances, Nacala can handle ships of almost any size.

In addition to the three big international ports mentioned above, there are another half a dozen ports with some kind of facilities such as quays, warehouses, etc, but which can handle only a very, much smaller amount of traffic. The remainder may more properly be termed landing places, since the installations found there is either in very poor shape or nonexistent and loading and unloading is done by means of barges.

Airports and Civil Aviation

The national carrier Linhas Aereas de Mozambique (LAM), which provides links to all the provinces and operates international flights from Maputo and Beira airports, dominates air transport. The airports at Pemba and Vilankulo were recently opened to international traffic. Private firms provide regional charter services. In the civil aviation

sector, the national airline, Linhas Aereas de Mozambique (LAM) has national, regional and international connections. Substantial growth in the sector has occurred since 1991 when private sector activity was permitted, with 17 companies operating small planes. However, airport facilities are in need of rehabilitation and repair. LAM operates domestic service to main towns; flights are often full. Local and charter flights can also be obtained from TTA and other companies with offices at Maputo Airport. Metavia has light planes operating a shuttle service between Maputo and Nelspruit.

The national flag carrier, Linhas Aéreas de Mocambique (LAM) services 9 provincial capitals from Maputo and has international flight to South Africa, Portugal and Zimbabwe. The privatised firm Empresa Nacional de Transporte e Trabalho Aereo (TTA) has scheduled services and offers charter flight in light aircraft and helicopters. Light aircraft services are also provided by international feeder airlines to Nelspruit and Durban in South Africa as well as Manzini in Swaziland.

The airports and aerodromes in Mozambique are operated by Aeroportos de Mozambique (ADM), which also operates the air navigation services of the country. ADM is a state owned corporation, operating on a self-financing basis.

Maputo Airport – Maputo is the main gateway to Mozambique and has approximately 430,000 passengers per year. The terminal and other facilities at the airport are in serious need of upgrading. The government has decided that an upgrade will be achieved by way of a concession. The concession agreement will cover management/operation of the passenger terminal, cargo terminal, car parking, runways, aprons, navigational aid systems etc.

As well as Maputo airport the Government owns a further 7 regional airports and 12 aerodromes which are also in need of upgrading. The Government is also looking at concessioning these as well as developing 12 new airports and converting Nacala from a military to civilian airport.

Beira Airport – Beira airport serves the centre of the country and will play an important part as the tourism sector grows and gathers pace in Mozambique. There is a need to undertake an evaluation of the requirements at Beira including the assessment of infrastructures to define a plan for rehabilitation. The cost of the study is estimated to be around US$200 thousand.

Direcção Nacional de Aviação Civil (DNAC) is responsible for safety, security and regulation of civil aviation. DNAC is currently being converted into the Instituto Nacional de Aviação (INAC) a more autonomous status which will be run by a board of directors and will be self financing. The government requires specialist help in the implementation of this process.

Telecommunications and Electricity

With regard to telecommunications, substantial development has taken place following the National Telecommunications Development Programme which covered Inter-continental telecommunications, traffic is handled through an earth station near Maputo while there are regional links with neighbouring countries. The domestic telephone service satisfies about 60 percent of expressed demand. The Telecommunications Department, Telecomunicações de Moçambique (TDM), was restructured in 1992. The TDM, a public corporation, became a corporate body in January 1993, with administrative.

Maintenance of Physical Infrastructure : The Government is making efforts, though with difficulty, to allocate recurrent resources for maintenance of economic infrastructure. Towards that end, the Government has initiated measures for improved revenue mobilization and fiscal management reviews, to ensure adequate budgetary

Table 3.15: Status of Electricity Availability in Nampula Province (1997-2002)

	1997		1998		1999		2000		2000
	Nampula	Country	Nampula	Country	Nampula	Country	Nampula	Country	mpula/Coun
Summary of elctricity balance									
Production by EDM (GWH)/1	2	219,2	1,9	243	1	302,8	1,3	296,2	0,4%
Aquicsition from HCB/2	109	206,9	56,9	67,1	118,6	615,3	124,6	854	14,6%
Total electricity	**111**	**426,1**	**58,8**	**310,1**	**119,6**	**918,1**	**125,9**	**1150,2**	10,9%
Regional emission	45	n.a	49,1	959,2	49,5	998,2	52,4	1394	3,8%
Reception	139	n.a	145,3	1052,9	152,4	1922,4	158,9	1170,4	13,6%
Gross electricity available	96	1036,3	100	1137	101,2	1272,2	106,8	1293	8,3%
Number of consumers	27680	177793	27796	186208	26307	188257	28876	201012	14,4%

1/ Gigga watts per hour

2/ Cabora Bassa Hidropower

provisions for priority expenditures, including maintenance costs.

As regards telecommunications, the levels of technological development

Table 3.16: Status of Telecommunications Availbility in Nampula Province

	1997		1998		1999		2000		2000
	Nampula	Country	Nampula	Country	Nampula	Country	Nampula	Country	Nampula/ Country
Instlaled Capacity (No of teleph)	**7.312**	**106.712**	**4.880**	**107.756**	**7.996**	**106.712**	**8.656**	**113.248**	**0,08**
Digital	6.912	104.312	4.480	105.356	7.696	104.312	8.656	113.248	
Analogic	400	n.a	400	2.400	0	2.400	0	n.a	
Utilization Capacity (No of teleph)	**4.662**	**69.027**	**3.833**	**74.849**	**5.954**	**69.027**	**6.610**	**85.039**	**0,08**
Digital	4.463	67.084	3.643	72.906	5.954	67.084	6.610	85.039	
Analogic	199	1.943	190	1.943	0	1.943	0	0	
Rate of Capacity Utilisation	**64%**	**65%**	**79%**	**69%**	**74%**	**65%**	**76%**	**75%**	
Public Cabines	95		63		109	978	125	1.832	**0,07**
Telephone Density (Line per 1000 inh.)	**2,4**	**6,6**	**1,6**	**6,5**	**2,5**	**6,3**	**2,7**	**6,6**	

and of competitiveness are very high.

The service provider is Telecomunicações de Mocambique (TDM), a publicly owned company that exercises a monopoly over the fixed telephone network. Work is currently under way to rehabilitate this fixed network and expand it to cover the whole country. The services offered by TDM include fixed telephone, telex and facsimile.

A mobile cellular telephone service started up in 1997 covering Maputo and Xai Xai. This service should be extended to other cities in the very near future, according to development plans.

Among the wide range of developments carried out in this sector, the extension of the national communications network via satellite, the provision of Internet services and cable television are the most noteworthy.

Other achievements in the sector include the digitalisation of telephone communications in Maputo, Beira, Nampula, Quelimane and Tete, the installation of a transit exchange in Maputo and upgrading of the present network to carry and distribute radio and television programmes. There are plans to lay fibre optic cables along the Mozambican coast in the near future.

The sector is soon to be liberalised, opening the way for more operators and competition in the provision of services.

The government has revealed plans to part-privatise the telecommunications utility, Telecommunicações de Mocambique (TDM), in the near future. TDM has improved the quality of its equipments & services in recent years and has cut down cost of international calls and domestic services to market rates.

IV. OPPORTUNITIES AND CONSTRAINS ON INVESTMENT IN THE NDC

4.1 Latent demand versus market accessibility

4.1.1 Summing up: the NDC countries at a glance benchmarked against two SADC members

If McRae (1999: 19), in his book entitled *The World in 2020* were write, the success or failure of any country in the next two to three decades will go around growth. Within two to three decades, McRae adds, some countries will most probably have experienced substantial improvements in their living standards. Other countries will have tried to follow the same pattern, making efforts to become a little bit richer, but they will feel uncomfortable for being left behind in relative terms. Still others seem predestinated to failure and misfortune due to the deterioration of their living standards.

How will the NDC countries be posited within these three main alternatives remains to be seen, but one thing can already be anticipated for the analysis presented in the this section. With the annual average economic growth rates registered in the last decade, however noteworthy this may be when compared to some other African countries, the three NDC countries have no better option but do their best to be between the second and the third alternatives.

There is an extensive and rapidly growing literature made available to international investors and those who support them. Above, in section 2, the report took into consideration some of the relevant and most updated documents available, including: the EI-Unit's 2002 country profiles, country reports and Country Risk Profiles; The Heritage Foundation's 2002 and 2003 Index of Economic Freedom; ICON's 2000 Executive Report on Strategies in Mozambique; the UNCTAD's 2001 *An Investment Guide to Mozambique: Opportunities and Conditions.*

In section 2 the report draws upon these and other relevant documents and tried to present a balanced analysis between a short and long term strategic perspective. Table 4.1 summarizes the substance of how the international institutions highly credited and taken into consideration by international investors assess the current socio-political and economic state of the three NDC countries.

Table 4.1: The NDC Countries' Socio-political and Economic Outlook at a Glance in 2002-2003

Mozambique

Over the past 15 years, the government of Mozambique has repudiated its former Marxist policies, relinquishing its grip on many state-controlled enterprises and encouraging entrepreneurs to take advantage of opportunities in agriculture, hydroelectric power, and transportation presented by a freer economic system. Liberalization, privatisation, and relative peace and stability have led to strong, stable economic growth over the past decade and have made Mozambique a model for economic development and post-war recovery. However, much of the population remains in poverty, unemployment and underemployment are high, and approximately 80 percent of the people are engaged in small-scale agriculture. Corruption is prevalent in the government, and much economic activity occurs outside of the formal sector. The country has largely recovered from catastrophic flooding that displaced thousands and crippled the infrastructure; economic indicators reflected strong growth during the second half of 2001. Mozambique has the potential to reap economic benefits by exploiting its energy resources (hydropower, coal, and gas) and serving as a regional transport hub for landlocked neighbours like Malawi and Zimbabwe. Mozambique's banking and finance score is 1 point better this year; however, its trade policy score is 1 point worse, and its monetary policy score is 2 points worse. As a result, Mozambique's overall score is 0.20 point worse this year.

Malawi

Malawi remains one of the world's poorest countries. Primarily agricultural, it is one of several countries in southern Africa that suffer from drought and face the prospect of famine. Malawi sold its entire grain reserve in 2001, leaving it with little domestic capacity to address the famine; an investigation into possible misconduct in the sale is being conducted. The government has shown a tendency toward corruption, and some donors have demanded that it improve transparency and governance before they resume distribution of aid. Being landlocked, Malawi faces expensive challenges in getting its goods to world markets. Transport costs have declined since the 1999 privatisation of Malawi Railways and improved access to the Mozambique port of Nacala. Reforms during the 1990s focused on trade liberalization, exchange rate flexibility, and—to a lesser extent—privatisation. Corn, seed, and fertilizer prices have been liberalized, but pressure resulting from drought and hunger could lead the government to re-establish price controls. Among the substantial reforms that still need to be undertaken are improving the infrastructure, increasing fiscal discipline and accountability, and diversifying the economy. Malawi's fiscal burden of government score is 0.5 point worse this year, and its banking and finance score is 1 point worse. As a result, Malawi's overall score is 0.15 point worse this year.

Zambia

The socialist policies of the one-party government that ruled Zambia until 1989 devastated the national economy. Since then, the government has pursued economic liberalization, including an ambitious program under which 251 of 287 state-owned companies were either privatised or liquidated. Agriculture is the largest employer and accounts for over 16 percent of GDP. Mining of copper and cobalt is the economic mainstay, supplying over 75 percent of exports; but production has been declining since the 1970s, and the country's rich mines are struggling to remain profitable as international prices decline. Prospects for the sector were hurt by the Anglo–American Company's announcement that it would not proceed with anticipated investments in Zambia's largest mines, the Konkola Copper Mines. Corrupt politicians, chronic mismanagement, and unproductive labour have eroded the value of the mines and caused investors to be sceptical. In addition, Zambia shares its borders with eight other countries, many of which have turbulent histories or are currently unstable. The deteriorating crisis in neighbouring Zimbabwe has made international donors reluctant to criticize irregularities surrounding the victory of Patrick Levy Mwanawasa in the December 2001 presidential elections. Zambia's trade policy and capital flows and foreign investment scores are both 1 point worse this year, and its fiscal burden of government score is 0.5 point worse. As a result, Zambia's overall score is 0.25 point worse this year.

Sources: EIU, 2002a, 2002b, 2002c

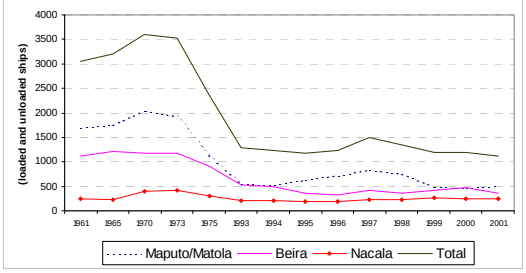
The specific geographical configuration and location of Mozambique has revealed both its weaknesses and advantages. On the one hand, historically the transport system has shown to be a key strategic sector for the national economy, both in terms of currency earnings and its contribution for integration with the neighbour economies.

Mozambique's long extension for a distance, as the crow flies, of 2,515 kilometres, from the mouth of the Rovuma river to the Ponta do Ouro, associated with the tendency of population to settle along the coast, makes the setting up of terrestrial transport system somewhat difficult, at least from an economic viewpoint.

During the colonial period, soon become clear that it was easier to connect between the major urban areas through the ocean, which in part explains the reasonable growth of the coasting trade activity in the second half of the 20th Century. The inland transport links evolved mainly in the east-west direction, from the coast towards the interior areas of the country, depending on the demand and the overall economic development in the country. This sort of system was, instead of a north-south system, was strongly reinforced and speed up by the existence of several landlocked neighbouring countries, such as Malawi, Zimbabwe and Zambia, Swaziland, and in part South Africa, which can find no better gateway to the sea but through Mozambique.

On the other hand, the strategy of the colonial administration to promote and try to maximize the services to the hinterland made Mozambique somewhat dependent on the neighbouring countries while the domestic transport systems remained much more underdeveloped. However, the imbalances resulting from the inter-action of supply and demand of transport services for goods and passengers often depend on the state of the national and regional economies. Indeed, the idea behind the form of development corridor standing on an infrastructure route "spine", such an important highway or railways is, in fact, to maximize its economic benefits and the social spin overs likely to emerge from they growth.

Graph 4.1: Movement of Ships per Port, Mozambique 1961-2001

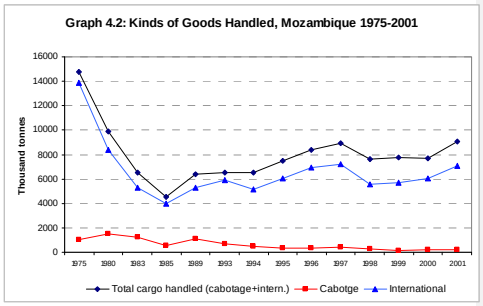


The recent history of Mozambique shows that the benefits of a strategic location cannot always be taken for granted, for a natural getaway must be cost effective and safe in order to become economical competitive.

For about two decades, the Mozambican economy has taken little advantage from the fact that before independence the country's ports and railways had positively responded to the high of regional trade from landlocked countries, namely Zimbabwe, South Africa, Swaziland, Botswana, Malawi, Zambia and Zaire.

The insecurity situation, combined with poor management, has reduced the comparative advantage of Mozambique, to the extent that, for

instance, traffic along the 800km route between Malawi and the Nacala port near halt. Before the war, about one-third of Malawi's trade travelled along the route depicted in Map 3.1. Since 1984, movement along the Nacala Corridor had slowed to a trickle and forced Malawi to use South African ports for 80% of its traffic. The nearest South African port, Durban, is some 2,300km away. Now, Mozambique faces a major challenge to attract traffic back to its transport network, a task that is usually not easy once a given market has been lost or taken by other players.



This experience provides a compelling example for the distinction ICON Group International makes, in its exercise of defining a country's strategic potential, between "latent demand" and "market accessibility". "A country may have very high latent demand, yet have low accessibility, making it a less attractive market than many smaller potential countries having higher levels of accessibility" (ICON Group International, 2000).

The distinction between these two dimensions is important. Very often appeal is made to the enormous natural endowment existing but are inadequately used, but one needs to bear in mind that in the end what determine the utilization of resources are, first of all, the economic fundamentals affecting, in this case the NDC countries and, in particular, Mozambique. These fundamentals are the source for Mozambique's latent demand.

However, as the ICON Group International show, a country's accessibility depend on factors, such as export strategies, and local direct investment strategies, local business conditions, including local marketing (advertising, distribution, pricing issues) and enterprise strategies (opening an office, joint venturing, etc.), as well as human resources management (labour laws, costs, regulations), and factors affecting business risks in Mozambique, including political risks, legal risks, cultural/demographic risks. Risks can only be evaluated within a historical context, and history, alas, often repeats itself.

4.2 General constraints on investment in the NDC

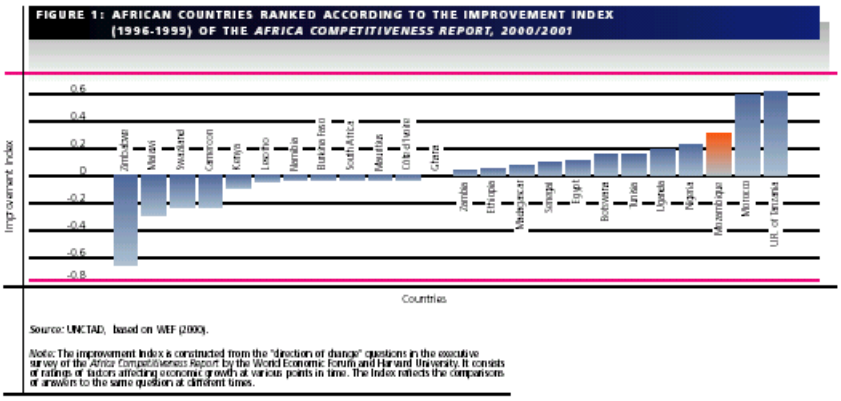
The following series of four graphs summarise eloquently the annual average percentage growth trends in gross internal investment, public and private, compared with the average annual growth of food and non-food production, in Mozambique and in sub-Saharan Africa. Obviously,

with negative private investment in the first decade after independence, and investments not higher than the average annual population growth in the second decade, the crisis in food and non-food production in the country was inevitable.

Apart from the improvement shown in the series of previous graphs concerning private investment, there are other indicators, which are generally used by investors and international agencies that bear witness to serious progress in the past decade, concerning the elimination of the basic constraints on investment. For example, UNCTAD (2001) in its *An Investment Guide to Mozambique: Opportunities and Conditions* stresses the current competition index in Africa, shown in the following chart. Mozambique seems to emerge as a possible chosen spot for investment.

However, a variety of evidence suggests that, notwithstanding the deep reforms and improvement in conditions for national and foreign investment, there is still an enormous gap between the high latent demand that exists in Mozambique and effective access. As the ICON Group International (2000) notes, a country can possess high latent demand, but provide low access, thus becoming a much less attractive market than many small countries who present greater levels of access.

Table 4.2 summarises the evolution of the indicators that form the economic freedom index. The Economic Freedom Index (EFI), produced by O'Driscoll et al. (2002) of the Heritage Foundation and the Wall Street Journal, measures the impact of taxes and customs duties, of commercial regulation, of government intervention in the economy, of corruption in the government, of the judicial system, and of the customs services, among other relevant factors. In his last report, O'Driscoll (2002: xiv) mentions Mozambique as a country that has undergone great changes. In 1996, it was classified as economically unfree. However, due to the improvements observed in recent years Mozambique has now been classified as economically "mostly unfree" instead of "unfree".



This type of classification may be questioned because of its more or less subjective character, and the value judgements inherent to it. In any case, the indicators that form the EFI synthesise and capture important aspects of business activity, and, in many cases, find empirical testimony in day-to-day economic life, in this case in Mozambique. For example, Hamela (2002a, 2002b) recently summarised "What business people want to see solved... by the government and the CTA" (see Table 4.3).

Table 4.2: The Index of Economic Freedom, Mozambique 1995-2002

Year:	1995	2002
Rank	97	76
Score	4.20	3.05
Category	*Repressed*	*Mostly unfree*

				1995				
Trade Policy	**5.0**	Government intervention	**4.0**	Foreign investment	**4.0**	Wages and Prices	**4.0**	regulation
Fiscal Burden	**3.0**	Monetary Policy	**5.0**	Banking and Finance	**4.0**	Property Rights	**4.0**	Black Market
				2002				
Trade Policy	**3.0**	Government intervention	**3.0**	Foreign Investment	**2.0**	Wages and Prices	**3.0**	Regulation
Fiscal Burden	**3.5**	Monetary Policy	**1.0**	Banking and Finance	**3.0**	Property Rights	**4.0**	Black Market

Country	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**
Trend	3.05	3.35	3.80	3.90	4.10	4.00	4.10	4.20

From 1990 to 1999, according to World Bank Group data, compound growth in GDP averaged 3.9 percent annually and per capita GDP increased from $144 to $198 (in constant 1995 U.S. dollars). Mozambique's government intervention score is 1 point worse this year; however, its monetary policy, foreign investment, and black market scores are, respectively, 2 points, 1 point, and 1 point better this year. As a result, Mozambique's overall score is 0.30 point better this year.

Trade Policy – Score: 3 – Stable (moderate level of protectionism).
Fiscal Burden of Government: Score – Income and Corporate Taxation: 3 – Worse (moderate tax rates); Score – Government Expenditure: 4-Stable (high level of government expenditure); Final Score: 3,5-Stable (High cost of government)
Government Intervention in the Economy – Score: 3-Worse (moderate level)
Monetary Policy – Score: 1-Better (very low level of inflation)
Capital Flows and Foreign Investment – Score: 2-Better (low barriers)
Banking and Finance – Score: 3-Stable (moderate level of restrictions)
Wages and Prices – Score: 3-Stable (moderate level of intervention)
Property Rights – Score: 4-Stable (low level of protection)
Regulation – Score: 4-Stable (high level)
Black Market – Score: 4-Better (high level of activity).

Source: http://cf.heritage.org/index/

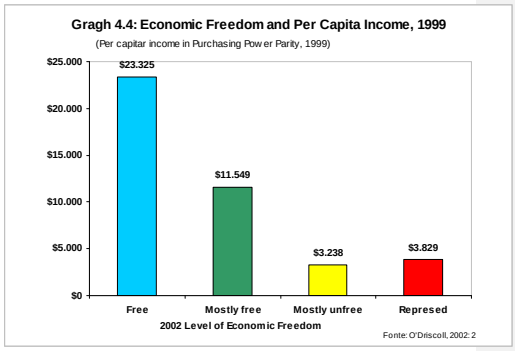
Table 4.3: Business people: What do they want to see solved, and what do they demand of the Government and of the CTA?

Government intervention in the economy	***Inspections by the Finance Ministry (MPF)*** The businesses of central and northern Mozambique are aghast at the MPF's multi-institutional inspections. They complain that they receive local, provincial and central (Maputo) inspections. The inspectors do not educate, they merely repress. The "southerners" (central inspectors) multiply the penalties and the "famous" fines. Re-imbursement of VAT for the "provincials" is increasingly expensive, because of the "fee for speeding things up", as the businessmen call it, which varies between 5 and 10 per cent. Informal versus formal sector: the same old war. The businessmen believe that the fines, and not the taxes in themselves, are responsible for driving business into the informal sector. ***Labour Ministry promotes unemployment*** Labour legislation: For the private sector in the centre and north, the Labour Law is "socialist", it only protects the worker, it encourages indiscipline, it discourages foreign investors who come looking for cheap and disciplined labour, and it sponsors very low productivity. ***Recruitment of foreigners*** Why does the government have to interfere in the hiring of foreign managers, when there are no qualified staffs at provincial level? Experience shows that it is more expensive to recruit a good quality national cadre to go to the provinces, than to recruit a foreigner. Certain business people say that the Ministry of Labour is promoting unemployment (instead of prioritising job creation) by frightening away foreign investment (take the example of the Zimbabweans registered to invest in Manica. Out of 50 only 5 are implementing their projects. Faced with a variety of complications, the rest gave up and went to Australia, South Africa and New Zealand.)
Land	The business people of Manica and Cabo Delgado raised the old question of land - which still cannot be used as collateral to obtain credit for agriculture. They do not believe that property in land, or at least a market in land titles, would prejudice the peasants: on the contrary, it could be the key to their access to capital, vital for the practice of agriculture on a business footing. A lot of land remains unused because of politically influential people. For their part, the investors don't know why they have to go around discussing with 10, 20 or more peasants in order to obtain a land title.
One Stop Counter	As for the one stop counter (BU), at least in Zambezia business people question its impact in reducing the time and paperwork necessary for obtaining any licence. Worse still if the activity intended includes obtaining a piece of land. The procedures and papers necessary have not been changed in the various directorates, It is just that now it is the BU rather than the investor that goes up and down flights of stairs in order to obtain any government authorisation. Indeed, the time needed to obtain a licence has become even longer, because the official of the BU is not going to use "lubricants" (i.e. bribes) throughout the entire process, because he is not an interested party.
PROAGRI	The business people think that those involved in this programme have been affected by "navel syndrome": their objective is to develop themselves. Hence the quantity of "4 x 4"s and other trappings worthy of a programme of hundreds of millions of dollars, part of which is in the form of loans, which our children and grandchildren are going to pay further down the line.

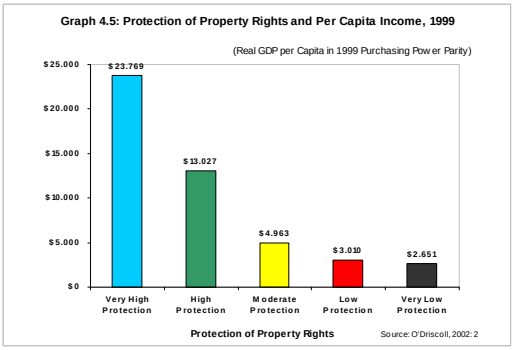
Source: Hamela, 2002a, 2002b.

Among the various objectives of the present study, the most important specific objective is to produce three pre-viability studies of projects in the agro-industrial processing sector. In practice, however, the demonstration of the viability of a specific project is just one of the purposes of a broader assessment of the possibilities of the financial viability, in this case, of agro-industrial activity in the country. There are other objectives and results which are part of the indispensable requirements to optimise the positive and wide-ranging effect of investment, such as: defining priorities among the countless possible projects; minimise the investment risk, or better still, choose the best combination of risk, profitability and other objectives.

The sensibility analysis of results, like that presented here for the three projects selected, leaves the final conclusion in the hands of the investors and the decision-making authorities. The decision makers and investors will have to choose from a range of possible results, the probability of which in many cases is not specified. Risk analysis tries to minimise he uncertainties that persist, since it is a tool for assessing the probability that certain events will occur. However, even if it is very improbable that at a particular moment all the worst, or all the best estimates of the variables under analysis will occur, most investors are convinced that, at least in relation to the worst, it was not long ago that Mozambique experienced them.



A good risk analysis eliminates the need to qualify estimates in advance as pessimist or conservative, optimistic or realistic. But, in the final analysis, it is the investor who, faced with data on the micro- and macro-economic situation of the country, has to decide whether to take the risk, or to wait for economic freedom to evolve from an unfree to a mostly free situation as graphs 4.4 and 4.5 illustrate.



The perceptions and ideas shown in Graphs 4.4 and 4.5 are present, more or less consciously, in the thoughts of investors and of many other people. It is scarcely

worth conjuring away the validity of the notion of "free" and "unfree" in terms of the Mozambican economy. In the final instance it is the enormous persuasive power of such ideas, perceptions and images, such as those in graphs 4.4 and 4.5, that countries like Mozambique have to face, and to which they must find effective solutions, if they are really banking on promoting private investment, whether foreign or national. Thus considerations of the power of this sort of representation are no less important than observing the IRR (internal rate of return) and the NPV (net present value of the cash flows) of the projects selected.

4.2 How far is Mozambique from recovering its leading role as a gateway to Southern Africa?

4.2.1 Nacala Corridor within a longer perspective: 2001 versus 1973

About two years ago, the Mail & Guardian (19 Sep. 2000) newspaper reported, that Malawi and Mozambique were looking forward to a $900m investment boom, after reopening a rail link that reconnects landlocked Malawi to an Indian Ocean port with a short and cheap route that civil war once made impassable. This was when Presidents Joaquim Chissano of Mozambique and Bakili Muluzi of Malawi signed an agreement launching the Nacala Development Corridor, the road and railway linking Malawi to Mozambique's northern port of Nacala.

The $900m investment included rebuilding the road and railway, and promoting the development of a wide range of businesses along the route, including mining, agriculture and tourism.

The Table 4.4 shows traffic in the main ports on its way up reaching in Nacala port 743,000 tones shipped in the year 2001. However, it is important to put this recovery into a wider perspective, in order to grasp the enormous effort, but also the promising potential, lying ahead.

Table 4.4: Throughput per commodity in the main ports, Mozambique

(10^3 ton)

	1997			1999			2001		
	Maputo	Beira	Nacala	Maputo	Beira	Nacala	Maputo	Beira	Nacala
Agricutlural Products	1095,7	157,1	83,6	719,6	719,6	83,6	779,1	227	156,7
Fuel	183,8	1230,7	135,4	301,9	1230,7	135,4	371,2	1182,2	99,4
Minerals	1296,4	125,6	20,6	1604,2	125,6	20,6	2351	388,9	59,5
Containers	186,2	383,3	228,2	311,6	383,3	228,2	442,4	340,5	324,5
Cement	2,3	0	0	0	0	0	0	0	0
Timber	0,8	1,5	2,9	1,5	1,5	2,9	0,1	2,9	1,6
Fertilizer	0	125,5	49,4	5,4	125,5	49,4	0	151,8	24,8
Various	344	119,7	121,9	157,4	119,7	121,9	57,7	62,8	76,8
Total	3109,2	2143,4	642	3101,6	2705,9	642	4001,5	2356,1	743,3

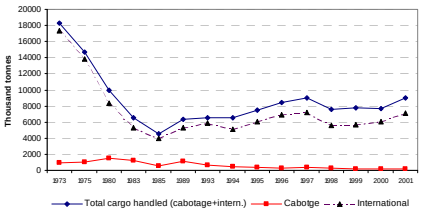
Source: www.cfnet.co.mz/portnacala.htm

The 743,000 tones in the year 2001 represent about 10% of the total traffic in the three main ports of Mozambique. However, when one compares the long term traffic flows, the total traffic in 2001 still represents about 60% of the traffic in 1973 due to still very low contribution of international traffic.

The domestic traffic in the years 2000 and 2001, when compared to the year 1973, was 141% and 154%, respectively. This very positive trend of the domestic traffic contrasts with the low level of international traffic, which represented 36% and 43% of the 1973 level, respectively

in 2000 and 2001. This gap in the international traffic is clearly illustrated by the graph below.

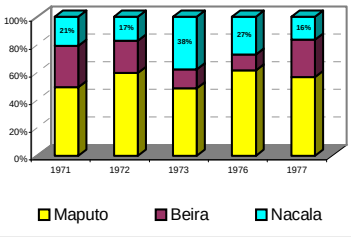
Graph 4.6: Kind of Goods Handled in the Main Port, Mozambique 1973-2001



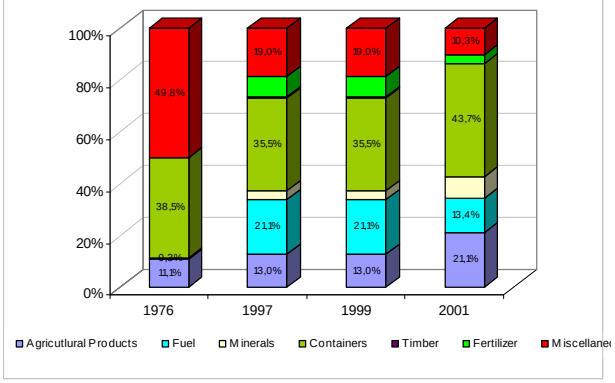
Furthermore, one can imagine what should be the level of the international traffic handled in the Mozambican ports if they had recovered the weight reached in 1973, that is 95% of the total handled goods.

If the international weight distribution of the traffic flows today were as the one in 1973, when the domestic traffic represented only 5%, then in 2001 international handled goods should be around 28,900 tones. Since the international traffic was still 7,500 tones in 2001, this represents 43% of the level reached in 1973 and about 25% of what it should be if the traffic had grown as fast as the domestic traffic during the period 1995-2001.

Graph 4.7: Costal shipping: Goods handled in Maputo, Beira and Nacala Ports, 1971-1977



Gragh 4.8: Composition of Cargo handled in the Nacala Port



Graph 4.9: Cargo Handled in the Three Main Ports as a Proportion of Total cargo

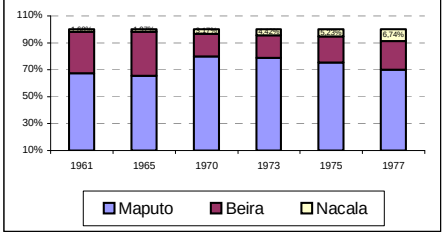


Table 4.5: Composition of Cargo Handled in the Nacala Port

(10^3 ton)

	1976	1997	1999	2001
Agricultural Products	20,484	83.6	83.6	156.7
Fuel	620	135.4	135.4	99.4
Minerals	338	20.6	20.6	59.5
Containers	70938	228.2	228.2	324.5
Timber	0	2.9	2.9	1.6
Fertilizer	0	49.4	49.4	24.8
Various	91,676	121.9	121.9	76.8
Total	184,056	642	642	743.3

Source: www.cfnet.co.mz/portnacala.htm

Table 4.6: Composition of Cargo Handled in the Nacala port, 1976 versus 1997-2001

(000's tons)

	1976	1997	1998	1999	2000	2001
Agricultural Products	20484	96	85	84	98	157
Cereals		64	52	46	48	101
Sugar & sugar products		0	0	4	1	30
Others		32	34	34	49	26
Fuel	620	69	99	135	119	99
Minerals & Timber	338	9	19	24	42	62
Coal		8	9	6	0	0
Clinker		0	10	15	39	60
Transport equipment	35796					
Containers		62	166	228	295	325
Construction material	4372	0	1	0	1	0
Fertilizer		35	24	49	18	25
Various	122446	97	68	122	102	77
TOTAL	**184056**	**368**	**462**	**642**	**673**	**743**

Table 4.7: Status of Nacala Port Performance					
	1996	1997	1998	1999	2000
Available equipment (No)					
Guindastes electricos	8	10	6	7	7
Empillhadoras de porao	n.a	11	0	n.a.	n.a
Guindastes automoveis	1	1	0	4,8	5
Guindastes a vapor	n.a	n.a	n.a	n.a	n.a
Viaturas ligeiras	7	17	6	8	9
Viaturas pesadas	2	6	2	5	4
Handled Capacity					
Cargo (10^3 tonnes/Year)	2000	n.a	461,8	642	673
Containeirs (No of TEU's)/1	30000	n.a	14772	19493	25207
Ships Movement (No)	194	231	256	262	253
Cargo Handled	**325**	**2428**	**340,9**	**453,7**	**997,1**
Coastal/Cabotge (10^3 ton)	66	113	70,4	49,3	28,4
International (10^3 ton)	259	2315	270,5	404,4	386,3
Containeirs Handled	**259**	**5639**	**14815**	**19493**	**25207**
Export (No of TEU's)	194	2594	3448	n.a	n.a
Import (No of TEU's)	65	3045	3919	n.a	n.a
Total Staff	929	1063	1024	1205	2660

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Table 4.8: Origin and Destination for SADC Ports Traffic Along Eastern Seabord, 1997-2000

('000 tonnes)

	Malawi					Zambia					Mozambique			
Port/ Country	**1997**	**1998**	**1999**	**2000**	Average	**1997**	**1998**	**1999**	**2000**	Average	**1997**	**1998**	**1999**	**2000**
Nacala														
Imports	82	88	160	118		0	0	0	0		145	239	289	290
Exports	16	28	25	69		0	0	0	0		101	107	167	197
Total	**98**	**116**	**185**	**187**	**147**	**0**	**0**	**0**	**0**	**0**	**246**	**346**	**456**	**487**
Beira														
Imports	91	74	44	41		21	19	13	1					
Exports	81	83	60	92		46	32	52	10					
Total	**172**	**157**	**104**	**133**	**142**	**67**	**51**	**65**	**11**	**49**				
Durban/East London														
Imports	17	17	29	15		35	41	39	36					
Exports	12	19	32	9		4	2	2	7					
Total	**29**	**36**	**61**	**24**	**38**	**39**	**43**	**41**	**43**	**42**				
Total Traffic					**179**					**90**				

Source: SATCC Annual Report

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References

Central Statistical Office. 1998. *Zambia Household Budget Survey 1993/94 – Total Household Consumption, Employment and Income*. http// www.worldbank.org

Central Statistical Office. 2003. Malawi Census Main Report 2000. http// www.cso.malawi.

Comissão Nacional do Plano, 1982. *Metodologia Básica: Actividade Portuária e Transportes de Superfície.* Maputo: Ministério do Plano e Finanças.

Comissão Nacional do Plano, 1987. *Informação Estatística 1986*. Maputo: Ministério do Plano e Finanças.

De Bono, Edward. 1996. *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas.* London: HarperCollinsBusiness.

De Soto, Hernando. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. London: Bantam Press.

Direcção dos Serviços de Planeamento e Integração Económica (SPIE). 1973. *IV Plano de Fomento*, Parte III Relatórios Sectoriais, Vol. 1, Tomo 1, Fomento Agrário. Lourenço Marques.

Direcção dos Serviços de Planeamento e Integração Económica. 1973. *IV Plano de Fomento.Relatórios Sectoriais. Transportes, Comunicações e Metereologia, Vol.7.*

Direcção Nacional de Estatística 1994. *Anuário Estatístico 1994*. Maputo: Comissão Nacional do Plano.

Direcção Nacional de Estatística, 1985. *Informação Estatítica: 1975-1984.* Maputo: Comissão Nacional do Plano.

Direcção Nacional de Estatística. 1989. Estatística dos Trasportes e Comunicações 1989. Maputo: Comissão Nacional do Plano.

Direcção Nacional de Estatística. 1990. *Anuário Estatístico 1990.* Maputo: Comissão Nacional do Plano.

Direcção Nacional de Estatística.1992. *Anuário Estatístico 1992*. Maputo: Comissão Nacional do Plano.

Economist Intelligence Unit. 2000a. *Country Risk Profile Malawi*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2000b. *Country Risk Profile Mozambique*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2000c. *Country Risk Profile Zambia*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2002a. *Country Profile Malawi*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2002a. *Country Report Malawi*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2002b. *Country Profile Mozambique*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2002b. *Country Report Mozambique*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2002c. *Country Profile Zambia*. The Economist. http://store.eiu.com.

Economist Intelligence Unit. 2002c. *Country Report Zambia*. The Economist. http://store.eiu.com.

Governo de Moçambique. 1993. Plano de Reconstrução Nacional 1994-96.

Hamela, Hipólito. 2002a. "O que os empresários querem ver resolvido pelo Governo e CTA", in Notícias, Economia e Negócios, 20-11-2002, p. 4-5.

Hamela, Hipólito. 2002b. "Empresários: o que exigem? Do Governo e CTA", in Notícias, Economia e Negócios, 27-11-2002, p. 7.

IG Ltd Company. 2000. *Executive Report on Strategies in Mozambique, 2000 edition*. ICON Group International. http://www.Icongrouponline.com/data/reports_toc

INE. 1995. *Anuário Estatístico 1995*. Maputo: Instituto Nacional de Estatística.

INE. 1999. *Indicadores sócio-demográficos: Moçambique*. Maputo: Instituto Nacional de Estatística.

INE. 2000. *Anuário Estatístico 2000. Província da Zambézia*. Maputo: Instituto Nacional de Estatística.

INE. 2000. Anuário Estatístico 2000. Província de Nampula. Maputo: Instituto Nacional de Estatística.

Instituto Nacional de Estatística (INE). 1999. *Projecções Anuais da População, País Total 1997-2010: Moçambique*, Estudos no. 1. Maputo: INE.

Instituto Nacional de Estatística (INE). 2001. *Censo Agro-Pecuário 1999-2000: Apresentação Sumária dos Resultados Quadros e Gráficos.* Maputo: INE.

Instituto Nacional de Estatística. http// www.ine.gov.mz.

Material por devolver a secção de vendas do INE: Anuário Estatístico de Niassa (1998, 1999), Anuário Estatístico de Cabo Delgado (2000).

Ministério dos Transportes e Comunicações, 1978. *Estudo Nacional de Transportes. Levantamento de Base Sócio-Económica.* Vol.I.

Ministério dos Transportes e Comunicações, 1978. *Estudo Nacional de Transportes. Plano Directriz dos Transportes.* Vol. II.

Ministério dos Transportes e Comunicações, 1978. *Estudo Nacional de Transportes. Portos e Cabotagem* Vol. V.

Ministério dos Transportes e Comunicações, 1978. *Estudo Nacional de Transportes. Ferrovias*. Vol. VII.

Ministério dos Transportes e Comunicações, 1978. *Estudo Nacional de Transportes. Tráfego Rodoviário e Custos de Transporte. Relatório Final*

Ministry of Health, National Institute of Statistics, Ministry of Planning and Finance, and the Centre for Population Studies (2001). *Impacto Demográfico do HIV/SIDA em Moçambique.* Maputo.

Newitt, Malyn. 1995. *A History of Mozambique*. London: Hurst & Company.

O'Driscoll, Gerald P., Kim R. Holmes and Mary Anastasia O'Grady. 2002. 2002 Intdex of Economic Freedom. Washington: The Heritage Foundation The Wall Street Journal, http://www.heritage.org.

SADC (Southern Africa Development Community). 2001. *Transport, Communications and Meteorology. Annual Report July 2000-June 2001*. Maputo: Southern Africa Development Community.

UNCTAD (United Nations Conference on Trade and Development). 2001. *An Investment Guide to Mozambique: Oportunities and Conditions.* Internet Edition. New York: United Nations.

UNCTAD (United Nations Conference on Trade and Development). 2002. *The Last Developed Countries Report 2002: Escaping the Poverty Trap*. Geneva: United Nations.

UNDP (United Nations Development Programme). 1997. *Zambia Human Human Development Report 1997*. Lusaka: United Nations Development Programme.

UNDP (United Nations Development Programme). 1999. *Human Development Report 1999*. New York: UNDP.

UNDP (United Nations Development Programme). 2000. *Mozambique National Human Development Report 1999*. Maputo: UNDP.

UNDP (United Nations Development Programme). 2000. *Mozambique National Human Development Report 1999*. Maputo: UNDP.

UNDP (United Nations Development Programme). 2002. *Human Development Report 2002*. New York: UNDP.

UNDP (United Nations Development Programme). 2002. *Mozambique National Human Development Report 2001*. Maputo: UNDP.

World Economic Forum (WEC). 2002. The Africa Competitiveness Report 2000 - 2001: Strengths and Challenges facing the Continent. http://www.weforum.org/pressreleases.nsf/.

Appendices

Appendix 1: Terms of Reference

NACALA DEVELOPMENT CORRIDOR

Technical paper Terms of Reference:
The NDC: Socio-economic development perspective.

1. Background

The concept of the Nacala Development Corridor has been derived jointly by the governments of Malawi and of Mozambique in order to exploit the significantly under-utilised natural resources present in the two countries. Geographically the Nacala Development Corridor includes the following areas of Malawi – all districts in the Southern Region, Chipoka port in Salima, the Districts of Ntcheu, Dedza, Salima, Dowa, Lilongwe and Mchinji in the Central Region, and land masses in Lake Malawi. In Mozambique the NDC includes the Nacala port, the geographical areas bordering the Nacala and Entre Lagos Railway line and the Cuamba-Lichinga Railway line and Lake Niassa. More recently the Zambian Government has indicated its desire to join the initiative, and as such the eastern part of Zambia – an area that should constitute an important hinterland to the NDC – should be regarded as part of the NDC.

Although the inherent potential for agricultural (including forestry and fisheries), mining, tourism, and industrial development is very good, the inadequacies of the infrastructure networks have hampered the utilisation of this development potential. A key strategy by the two countries is that of generating economies of scale for the development of required infrastructure, marketing of production, and utilising/exploiting the inherent natural resource based development potential.

The objectives of the NDC initiative are as follows:

To develop adequate, reliable, cost effective, efficient and seamless transport, telecommunications and energy systems so that the Corridor is a competitive investment area.

To foster economic growth through the promotion and coordination of economically viable business in transport, agriculture, fisheries, cattle breeding, commerce, industry, mining and tourism and any other activities deemed vital for the development of the Corridor.

To foster increased economic activity through the promotion of trade; and

To ensure that the development of the Corridor takes place in an environmentally sustainable manner.

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A significant amount of donor, public and private sector investment has been mobilised to support the upgrading of the NDC over the past few years. A considerable amount of infrastructure is already planned, programmed and funded for implementation along the 'spine' of the NDC. A number of strategically important infrastructure projects, fundamental to the NDC, have also been recently completed. Similarly, there are also a significant number of economic development projects that have been identified, planned, programmed and put on the market for potential investors. There are also a number of important existing development planning initiatives underway in the NDC that are strategically important.

Thus far the nature and extent of these recent development interventions both planned and already implemented is not well know within the broader SADC region, and as such it has been agreed that there will be a development conference focused on the NDC towards the end of November 2002. The NDC investor conference should have two main purposes. *Firstly*, to disseminate information to the existing and prospective investors in the NDC and its hinterland about development projects implemented over the past 3-5 years, as well as those projects already planned, programmed, funded and in implementation. Details will also be provided about those investment projects that have already been put out to the private sector for concessions. *Secondly*, to present new infrastructure and economic development projects to the private sector and donors as potential investment projects.

As part of preparing the necessary technical background documentation for this NDC development conference, and also in view of the fact that as yet no single integrated socio-economic analysis and assessment has been prepared to support the ongoing development planning activities associated with the Nacala Development Corridor SDI it has been decided that a strategic socio-economic perspective document should be prepared for the NDC. The main purpose of the document is to enable prospective investors, development planners, and interested members of the public to understand the nature and extent of the key economic and social issues/trends that are in evidence in the Nacala Development Corridor.

It is very important to note that this document is NOT intended to provide a detailed and comprehensive description, analysis, and assessment of the economies in the three countries involved either individually or collectively. It is the opinion of those commissioning this study that what is required at present both in terms of the NDC development conference, and the general development planning and project identification processes associated with this SDI, is a single document that provides an integrated overview and assessment of the most important strategic socio-economic issues and trends that provide the backdrop for the Nacala development Corridor initiative.

2. The brief

It is very important that prospective bidders for this assignment note that this perspective document is to be prepared primarily on the basis of existing secondary case study material. The SDI Unit at the Development Bank of Southern Africa will provide copies of certain existing documents and/or maps (as will be agreed at the subsequent briefing of the selected consultants, either in the form of 'hard' copies, or electronic copies, or Web addresses) that will need to be considered as part of the assignment. It is expected that in addition to the secondary source material that the selected specialists will also obtain some (albeit limited) primary information and perspectives in the course of interviews, discussions and based on their own existing knowledge. Related to this, the attention of prospective bidders is drawn to the contents of section 3 of this document dealing with the budget and time framework.

The NDC Strategic Socio-economic Perspective will be based largely on the various secondary analyses that have been completed for the participating countries – Zambia, Malawi and Mozambique. The key difference between these previous country specific analyses and this assignment is that this assignment looks at the three countries in an integrated manner, and that the primary focus area spatially is the NDC, and this includes those districts/local authorities that are immediately adjacent to the main NDC transportation infrastructure (road and rail)[7].

The NDC Strategic Socio-economic Perspective, should make use of maps, tables and graphics, and should be written in a simple, but business-like manner. The perspective will need to provide a balanced (both strengths and weaknesses) overview, analysis and/or assessment of the following key subjects:

a. Description of the study area including location and natural endowment. This will include a written component and an orientation map.

b. Recent history. Comment on:

- Political aspects including pre and post independence eras
- Socio-political trends and particularly 'political stability' issues over past few decades
- Economic and development trends over past few decades.

c. Overview of key demographic trends. Comment on:

- Relative population distribution along the corridor
- Demographic growth rates
- Urban/rural settlement ratios
- Gender and youth issues

[7] The final spatial focus area will be determined through a process of discussion between the selected consultancy and the NDC Project Managers

- Labour issues
- Draw preliminary conclusions

d. Overview of employment trends. Comment on:

- Employment and unemployment issues and trends. Where possible provide percentages and absolute numbers.
- Where possible compare between countries and districts along the corridor. If possible try and focus on those districts along the corridor.
- Comment on causes of unemployment
- Comment on major sources of employment
- Comment on spatial distribution of employment/unemployment
- Comment on incidence and distribution of subsistence based employment

e. Physical infrastructure issues and trends. Comment on:

- Extent, condition, operation and maintenance of transport infrastructure including road, rail, air, and (where applicable) water based transport. Also consider ownership, demand backlogs, and privatisation.
- Extent, condition, operation and maintenance of telecommunications infrastructure. Also consider ownership, demand backlogs, and privatisation.
- Extent, condition, operation and maintenance of electricity infrastructure network. Also consider ownership, demand backlogs, and privatisation.
- Extent, condition, operation and maintenance of water resource infrastructure. Also consider ownership, demand backlogs, and privatisation.

f. Key environmental issues and trends. Comment on:

- Those environmental issues and trends that impact on the inherent development potential of the NDC.
- Highlight the strategically most significant geographical issues/features (geology, soils, climate, water, hydrology, vegetation etc.)
- As part of this component it would be necessary to comment on prevailing environmental legislation and procedures.

g. Social infrastructure issues and trends. Comment on quality, quantity, distribution and access in terms of:

- Education
- Health
- Progress with implementation of poverty reduction strategies and safety nets (if in existence).

h. Overview and assessment of economic development issues and trends. Comment on:

- Size of each of the countries economies, and if possible those districts/provinces that are part of the development corridor.
- Structure/composition of each country's economy (production by main sectors), and if possible also at a district/provincial level.
- Role of the public sector relative to the private sector in terms of production.
- Real production and expenditure
- Composition of expenditure including government share of consumption, and domestic savings rates.
- Imports and exports

- Public finance including fiscal position; budgetary control; strategic objectives; key strategies; budgetary trends; (including sources of income and priority expenditures);
- Monetary system and policy
- Foreign reserves and debt
- Investment promotion

i. Implications of the above for the socio-economic development process in the broader corridor.

j. Recommendations and follow-up actions.

3. Time framework

The time framework requires that the selected consultant(s) will have completed a draft final report within 30 days of the appointment of consultant. Related comments from the NDC Project Managers will be provided within 7 days. The final report will be completed within 14 days of the consultant(s) having received comments from the NDC Project Managers.

4. Payment schedule

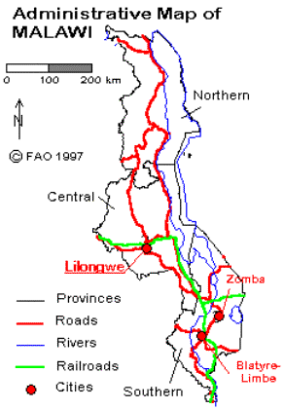
A first payment equal to 40 per cent of the contract value will be paid to the selected consultant(s) on signing of the contract. A final payment of 60 per cent of the contract value will be paid to the consultant(s) on acceptance of the final report.

Appendix 2: Malawi – Country Profile

Capital: **Lilongwe**

Area: **118,485 square km (45,747 square miles), bordered to the north by Tanzania, to the east, south and southwest by Mozambique and to the west by Zambia**

Language: **Chewa (official) and English; several Bantu languages other than Chewa are spoken by their respective ethnic groups**



Population:	11.16 million (2002), 20.0 million (2025)
Ethnic groups:	Maravi (including Chewa, Nyanja, Tonga and Tumbuka) 58.3 percent, Lomwe 18.4 percent; Yao 13.2 percent; Ngoni 6.7 percent. Some whites and Asians live in urban areas
Religion:	Many people follow traditional religions, and also belong to Christian (64.5 percent) and Muslim (16.2 percent) communities
Climate:	Tropical in lower regions with high temperatures throughout the year and high humidity in the rainy season from November to March; cooler in the mountains with heavier rainfall in January and February
Currency:	Kwacha
Time zone:	GMT +2
Public holidays:	2002: Jan 1, 15, March 3, 29-April 1, May 1, June 14, July 6, Oct 14, Dec 25, 26 2003: Jan 1, 15, March 3, April 18-21, May 1, June 14, July 7, Oct 13, Dec 25, 26
Electricity:	220/240v ac 50hZ
Travel rules:	Passport required, except by officials of certain organisations. Check with local diplomatic missions. Visa required, but not by citizens of a number of Western, African and Caribbean countries and the United States. Transit visa required, but not by citizens of exempted countries. If an overnight stop is involved such persons holding valid travel documents and confirmed tickets for the first available service may leave the airport for hotel accommodation
Driving:	Driving is on the left. International or British driving licence required

(Source: The State of World Population 2000, UNFPA, NI World Guide 2001/2002, Europa World Year Book 2002)

POLITICAL PROFILE

The state of Kitwara was part of a small country on the shore of Lake Malawi (previously

known as Nyasa), ruled by the Monomotapa people of Zimbabwe.

Their power declined, and around 1835 Zulu power expanded and pushed the Nngoni-Ndwande to the shores of the lake, leading to 60 years of war between the Ngoni and the Chewa and Yao allies.

The country was explored by Dr. Henry Livingstone in 1859 and the Portuguese tried to colonise the area but Britain wanted to keep the territory in order to join their colonies between South Africa and Egypt.

In 1891 Cecil Rhodes' British South African Company negotiated the protectorate of Nyasaland, which was established in 1896.

It was a member of the white-ruled central African Federation of the Rhodesias and Nyasaland with present-day Zambia and Zimbabwe from 1953 to 1963.

Malawi achieved political independence from Britain on July 6, 1964, after a civil disobedience campaign by the black majority.

Dr. Hastings Kamuzu Banda, a Western-trained doctor, ruled country from independence for 31 years. He declared himself ruler for life in 1971, crushing all dissent.

Between 1987 and 1988, the country received 600,000 refugees from the civil war in Mozambique, where Malawi had supported the counter-revolutionaries of the National Resistance Movement (Renamo).

Earthquakes, floods and IMF-induced austerity measures exacerbated food shortages in 1990 and 1991.

Banda finally lost power to President Bakili Muluzi during the country's first multi-party elections in May 1994.

Muluzi's government tried Banda for the murder of four political opponents but he was found not guilty. An attempt to have him tried again was rejected by the courts. He died in a South African clinic in November 1997.

The constitution was replaced in May 1994, and was finalised in May 1995. In the same year, the 117-member National Assembly approved proposals for a second chamber -- the Senate -- implemented in 1999.

In June 1999, Muluzi was re-elected in the second multi-party elections. However, the opposition groups Malawi Congress Party and the Alliance for Democracy petitioned that Muluzi did not win 51 percent of the vote. In May 2000, the high court confirmed that Muluzi had been re-elected.

Muluzi dropped three of his cabinet members in November 2000, after he was criticised for not acting firmly enough against corruption in the government.

Five people died and thousands were made homeless after the river Shire flooded in February 2001, when floods also devastated. neighbouring Mozambique.

In February 2002, Muluzi declared the food situation in his country a national disaster and appealed for urgent international supplies after drought and heavy rains destroyed the 2000/2001 crop.

The U.N. World Food Programme (WFP) said repeatedly during early 2002 that there would be a disaster in southern Africa without desperately needed food aid. It said the situation was worsening each day for Malawi's population, 80 percent of whom are peasants living well below the World Bank poverty threshold of $1 a day.

Malawi Vice President Justin Malewezi said that some 500 people died from starvation and related illnesses in the four months to March 2002.

While Malawi was the worst affected, the WFP was also very concerned about Zambia and Zimbabwe, as well as Lesotho, Mozambique and Swaziland.

(Sources: NI World Guide 2001/2002 and Reuters)

HUMAN DEVELOPMENT INDICATORS

Infant mortality:	117 per 1,000 live births (2000)
Maternal mortality ratio:	1,100 per 100,000 live births (1985-1999)

Life expectancy:	40.2 years male, 39.8 years female (2000)
Illiteracy:	25.5 percent male, 53.5 percent female above 15 years (2000)
Access to basic care:	44 percent (access to essential drugs) (1999)
Access to safe water:	57 percent (1999)
Human development index value:	0.400 (2000)

(Source: Human Development Report 2002, UNDP)

ECONOMIC INDICATORS

GDP:	73 billion kwacha ($1.5 billion) (2000)
Per capita:	$900 (2000)
Growth:	2.5 percent (2000)
Inflation:	30 percent (2000)
Debt:	$2.8 billion (2000)
Defence budget:	$19 million (estimated) (2001)

(Source: The Military Balance, 2001/2002, IISS)

MILITARY STATISTICS

Armed forces:	Active 5,300 (all services form part of the Army).
Army:	5,000 with 32 light armoured vehicles.
Navy:	MARITIME WING: 220 with two patrol craft (on Lake Nyasa).
Air force:	AIR WING: 80 with no combat or armed helicopters.

(Source: The Military Balance, 2001/2002, IISS)

COMMUNICATIONS

Civil aviation:	Lilongwe (formerly Kamuzu) International Airport was opned in 1982. There is another main airport, at Blantyre, which serves a numbe of regional airlines and three domestic airports.
Railways:	The Central African Railways Co (formerly Malawi Railways) operates between Nsanje, near the southern border with Mozambique, and Mchinji, near the border with Zamibia, via Blantyre, Salima and Lilongwa, and between Nkaya and Nayuchi on the eastern border with Mozambique, covering a total of 797 km. The Central East African Rialways Co and Mozambique State Railways connect Malawi with the Mozambican ports of Beira and Nacala. Malawi Railways and Mozambique State Railways connect Malawi with the Mozambican port of Beira and Nacala. There is a rail-lake interchange station at Chipoka on Lake Malawi, from where Malawi Railways vessels operate services to other lake ports in Malawi.
Roads:	In 1997 Malawi had a total road network of about 16,451 km, of which 4,520 km were main roads and 2,768 were secondary roads; about 19 percent of the road network is paved. In 1999 the total road network was estimate at 28,400 km. In addition, unclassified community roads total an estimate 10,000 km. All main roads and most secondary roads are all-weather roads. Major routes link Lilongwe and Blantyre with Harare (Zimbabwe), lusaka (Zambia) and Mbeya and Dar es Salaam

(Tanzania). A 480 km highway along the western shore of Lake Malawi links the remote Northern Region with the Central and Southern Regions.

Telecomms: There are 4 main telephone lines per 1,000 people (1996).

(Source: Europa World Year Book 2002, NI World Guide 2001/2002)

Sources: http://www.alertnet.org/thefacts/countryprofiles/

Appendix 3: Mozambique – Country Profile

COUNTRY PROFILE

Capital: Maputo

Area: 799,380 square km (300,760 square miles), bordered to the north by Tanzania, to the west by Malawi, Zambia, Zimbabwe, South Africa's Transvaal province and Swaziland, and to the south by South Africa's Natal province. It has a 2,470-km (1,540-mile) long coastline on the Indian Ocean

Language: The official language is Portuguese

DETAILS

Population:	19.3 million (1999), 30.6 million (2025)
Ethnic groups:	90 percent Bantu speaking, the rest mixed-races, whites and Asians
Religion:	Animism, with Muslim, Christian and Hindu minorities
Climate:	Tropical, the coastal lowlands warm and hot for most of the year, mild and warm in the interior plateaux and hills even in the cooler season between April and September. A single rainy season between December and March. Oppressive humidity in some lowland areas during the rainy season
Currency:	Meticais
Time zone:	GMT +2
Public holidays:	2002: Jan 1, Feb 3, April 7, May 1, June 25, Sept 7, 25, Dec 25 2003: Jan 1, Feb 3, April 7, May 1, June 25, Sept 7, 25, Dec 25.
Electricity:	220V AC 50Hz
Travel rules:	Passport, valid for six months from departure date, and visa required by all
Driving:	International driving licence required
Health rules:	Yellow fever certificate required if arriving from infected areas. Hepatitis A, TB, malaria, polio, tetanus and typhoid immunisation recommended. Diphtheria, hepatitis B and meningitis immunisation recommended in some circumstances, seek further advice. Malaria exists all year throughout the country. Risk of rabies

(Sources: The State of World Population 1999, UNFPA, Europa World Year Book 2002)

POLITICAL PROFILE

The republic of Mozambique became independent on June 25, 1975 after a 10-year guerrilla war by Mozambique Liberation Front, formed in 1962. Frelimo assumed power as a single party and its president and military commander Samora Machel became the republic's first president. Joaquim Chissano became president after the death of Machel in a plane crash on October 19,1986.

Frelimo, which declared itself a Marxist-Leninist party in 1977, carried out widespread nationalisation after independence, prompting an exodus of white Portuguese settlers. In early 1980, the Mozambique National Resistance (Renamo), originally created by security forces from Rhodesia (now Zimbabwe) and later adopted by South Africa, launched a guerrilla war against the Frelimo government. The insurgency spread to all of Mozambique's 10 provinces, cutting road and rail links and paralysing the economy.

In March 1984 Mozambique and South Africa signed the Nkomati non-aggression accord in which Pretoria agreed to stop supporting Renamo and Maputo agreed not to harbour South African anti-apartheid guerrillas. But the war escalated and Zimbabwean and Tanzanian troops went in to help the government and protect corridors. The Frelimo government's relations with Western countries improved and in 1986 the international community launched a massive emergency relief operation for war and famine victims.

Renamo's international image worsened after the U.S. Congress and human rights groups accused it of atrocities. In early 1989, Chissano initiated contacts with Renamo through Mozambican Church intermediaries. At a congress in 1989, Frelimo ditched Marxist-Leninism. Over the next two years, the government loosened restrictions on trade unions, other political groups and freedom of speech.

In November 1990 parliament adopted a new constitution that legalised opposition parties, provided for multi-party elections and a bill of rights. In July 1990 the government and Renamo began direct peace talks in Rome after several months of indirect contacts in Kenya. The talks, mediated by Italy and Roman Catholic churchmen, culminated in Rome on August 7 with the first meeting between Chissano and Renamo leader Afonso Dhlakama. They agreed to sign a ceasefire, which they did on October 4.

Some 7,000 U.N. peacekeepers were stationed in Mozambique to oversee the accord and transition to democracy. Demobilisation of nearly 70,000 former government and Renamo soldiers began in March 1994. Chissano and Renamo won the country's first multi-party elections in October 1994 and Renamo became the official opposition.

Parliamentary results were: Frelimo 129 seats, Renamo 112 and the small Uniao Democratica Coalition nine. The Frelimo majority is guaranteed until the next general election in 1999 because the proportional representation system in force ensures that deputies who die or retire are automatically replaced by the next candidate on the party list.

In December, 1994, Chissano named his new government. Only three ministers kept their seats, but 13 of 20 were ministers, deputy ministers or provincial governors in the previous government -- all were Frelimo stalwarts. In general, the multi-party parliament and its specialised committees functioned in accordance with the stated belief of all parties of the need for national reconciliation.

Outside parliament there were some problems. Renamo politicians argued that in areas where they had polled more votes than Frelimo, they should be in charge. Chissano refused but allowed Renamo to nominate some district administrators in areas it had controlled when it was a rebel movement.

The second multi-party elections took place in December 1999, resulting in the re-election of Chissano. Renamo refused to recognise Chissano's victory and accused the Frelimo government of rigging the vote.

Seven hundred people died and more than half a million lost their homes when a tropical cyclone caused flooding in 2000.

Mozambique experienced simultaneous flooding and drought in January 2001. Torrential rains swept away farmlands and homes in the flood-hit Zambezi area. At least 81 people died and 80,000 were left homeless. However, in the southern Inhambane region, people suffered from severe drought and starvation.

Protests in northern Mozambique against the December election resulted in the deaths of 39 people in November 2000. After the protest, Dhlakama threatened to return to war to regain power from Chissano.

Peace talks were in place for March and April 2001 to ease the tension between the two parties. However, Dhlakama abandoned the talks after demanding constitutional changes and an early election.

HUMAN DEVELOPMENT INDICATORS

Infant mortality:	126 per 1,000 live births (2000)
Maternal mortality ratio:	1,100 per 100,000 live births (1985-1999)

Life expectancy:	38.4 years male, 40.2 years female (2000)
Illiteracy:	39.9 percent male, 71.3 percent female above 15 years (2000)
Access to basic care:	50 percent (access to essential drugs) (1999)
Access to safe water:	60 percent (2000)
Human development index value:	0.322 (2000)

(Source: Human Development Report 2002, UNDP)

ECONOMIC INDICATORS

GDP:	30.2 trillion meticais ($2.4 billion) (2000)
Per capita:	$1,500 (2000)
Growth:	3.8 percent (2000)
Inflation:	11.4 percent (2000)
Debt:	$9 billion
Defence budget:	E1,600 billion meticais ($82 million) (2001)

(Source: The Military Balance, 200/2002 IISS)

MILITARY STATISTICS

Armed forces:	Active 10,600-11,600 (estimated) (Conscription 2-3 years).
Army:	9,000-10,000 (estimated) with 80 battle tanks (estimated 10 percent or less serviceability).
Navy:	600 (estimated 400 naval infantry) with three patrol and coastal vessels.
Air force:	1,000 with no combat aircraft and four armed helicopters.

(Source: The Military Balance, 2001/2002 IISS)

COMMUNICATIONS

Civil aviation:	There are 16 airports, of which three are international.
Railways:	In 1999 the total length of track was 3,114 km. The railways are all state-owned. Thre are both internal routes and rail links between Mozambican ports and South Africa, Swaziland, Zimbabwe and Malawi. In 1999 the WOrld Bank approved a loan of $100m to help finance the reconstruciton of the line linking the port of Beira with the coal-mining centre of Moatize. In 2000 it was announced that funding worth some $55m was to be made available for the rehabilitation of th Limpopo railway line, which had been damaged by floods earlier that year.
Roads:	In 1999 there were an estimated 30,400 km of roads in Mozamique of which 5,685 km were paved. In 1994 the governemtn announced a five-year road rehabilitation programme to reopen 11,000 km of roads closed during the hostilities, and to upgrade 3,000 km of paved roads and 13,000 km of secondary and tertiary roads. The programme aimed to increase the percentage of roads in 'good' or 'reasonable' condition from 39 percent to 70 percent. However owing to the widespread destruction caused by the February 2000 flooding much of this reconstruction work would have to be repeated.
Telecomms:	There are 3 main telephone per 1,000 people (1996).

(Source: Europa World Year Book 2002, NI World Guide 2001/2002)

Source: http://www.alertnet.org/thefacts/countryprofiles/

Appendix 4: Zambia – Country Profile

COUNTRY PROFILE

Capital:	**Lusaka**
Area:	**750,614 km, bordering, clockwise from north, the Democratic Republic of Congo, Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, Namibia and Angola**
Language:	**English is the official language. There are more than 80 languages, of which five Bantu languages are officially used in education and administration: Bemba, Lozi, Nyanja, Tonga and Tumbuka**

DETAILS

Population:	10.9 million (2002), 29.3 million (2050)
Ethnic groups:	98 percent of Zambians are descendants of successive waves of Bantu migrants, divided into 72 ethnic groups. The biggest is the Bemba tribe in the north. There are also approximately 70,000 inhabitants of European descent and 15,000 Asians
Religion:	Between 50 and 75 percent of the population is Christian (Roman Catholics and Protestants). Between 24 percent and 49 are Muslim and Hindu, and about one percent follow traditional animist beliefs.
Climate:	The climate is tropical in the lowland areas, with hotter but rainy period between October and February. In the upland areas temperatures are lower, typical of a warm-temperature climate. Frost is not uncommon in the higher regions, especially during the period between April and August. Rainfall mainly occurs during October and March and is at its height between December and February
Currency:	Kwacha
Time zone:	GMT +2
Public holidays:	2002: Jan 1, March 11, March 29-April 1, May 1, 24, July 1, 2, Aug 5, Oct 24, Dec 25 2003: Jan 1, March 11, April 18-21, May 1, 24, July 7, 8, Aug 4, Oct 24, Dec 25
Electricity:	220/240V AC 50Hz
Travel rules:	Passport, valid for six months from date of entry, visa required
Driving:	International Driving Permit required
Health rules:	Hepatitis A, malaria, polio, tetanus and typhoid immunisation recommended. Diphtheria, hepatitis B and meningitis immunisation recommended in some circumstances, seek

further advice. Malaria exists all year throughout the country. Chloroquine is highly resistant. Risk of rabies

Sources: The State of World Population 1999, UNFPA, NI World Guide 2001/2002, Europa World Year Book 2002

POLITICAL PROFILE

Ancestors of the modern Tonga tribe reached the region early in the 2nd millennium AD. Other modern peoples did not arrive until the 17th and 18th centuries from what is now the Democratic Republic of the Congo.

There were Portuguese trading missions in the 18th century. Towards the end of this century, the powerful state of Lunda began to decline, and the slave trade started petering out in the following century, weakening the traditional Lunda leaders, and local governors gained greater power.

British missionary David Livingstone went up the Zambezi River to Victoria Falls in 1851. He was followed later by merchants and colonialists, and Cecil Rhodes established a mining and trade monopoly in the region in 1889. Northern Rhodesia came into existence the next year.

The former British protectorate of Northern Rhodesia became independent on October 24, 1964, following the dissolution of the Federation of Rhodesia and Nyasaland in 1963.

Zambia, which became a member of the Commonwealth, was ruled by one party, the United National Independence Party (UNIP) under Kenneth Kaunda, from 1973 to 1990. Kaunda championed liberation struggles in neighbouring Angola, Mozambique, Namibia, South Africa and Zimbabwe.

Kaunda nationalised the copper reserves, but falling world prices led to a serious rise in basic food prices in 1984.

Pressure from opposition groups led to a new constitution in August 1991, and multi-party legislative elections in October 1991.

The Movement for Multiparty Democracy (MMD) won 125 of the 150 seats in parliament, and in the presidential elections the MMD candidate unionist Fredrick Chiluba defeated Kaunda.

The new government began the transformation of the state-controlled economy into a free market system with the sale and privatisation of large sectors of the economy.

A state of emergency was in force between March and May 1993 after the discovery of a plot by UNIP. Continual allegations of corruption by government ministers led first to the resignation of 15 MMD MPs from the party and then ministerial resignations, under pressure from foreign aid donors in 1993-94.

A constitutional amendment was approved by the president in May 1996, requiring presidential candidates to be third-generation Zambians, thereby excluding Kaunda, who had returned to politics in June 1995 when he was elected president of UNIP. Kaunda's parents were reportedly from Malawi.

Western governments tightened aid flows to Zambia in protest against the controversial constitutional changes ahead of the November 1996 a general election. Chiluba's MMD won the poll, which were boycotted by seven political parties.

The aid donors lifted the year-old squeeze in July 1997 but several human rights groups said they would lobby for maintaining the financial pressure.

Zambia is one of the world's poorest and most debt-ridden countries. In 2000, Zambia qualified for debt relief of about $3.8 billion under the enhanced initiative for Highly Indebted Poor Countries (HIPC).

The economy has traditionally depended on the mining of copper, cobalt, zinc and lead. However, falling copper prices have increased the country's dependence on foreign aid, which accounts for 53 percent of the national budget. Zambia grows maize and wheat for domestic consumption, but usually requires imports.

Twenty percent of the adult population lives with AIDS, which affects one in four adults in cities, according to UNAIDS. About 650,000 children have been orphaned by the disease, and 99,000 Zambians died because of it in 1999.

The advance of rebel troops in the Democratic Republic of the Congo and the army in Angola brought waves of refugees in Zambia during 1999. In February 2000, Chiluba refused Angolan troops permission to enter Zambian territory and put an army presence on the border to back this up.

His government also declared that it would be prepared to receive white farmers expelled by

violence in neighbouring Zimbabwe.

In April 2001, Chiluba sought to change the constitution to allow a third term. This provoked a massive public outcry. Chiluba capitulated and opted to step aside when his term ended.

Before he could recover, the chief justice launched a special court to hear corruption charges against three close aides -- Finance Minister Katele Kalumba, Works and Supplies Minister Godden Mandandi and Home Affairs Minister Peter Machungwa.

Chiluba's former campaign manager, Paul Tembo, was shot dead in July 2001, hours before he was to testify against the cabinet ministers involved in the graft case. The opposition suggested that the murder was a state-sponsored crime.

In July 2001, Zambia appealed for international aid for two million people affected by flooding in central and eastern parts of the country and drought in the south and west.

Presidential, parliamentary and municipal elections took place in December 2001. Former Vice President Levy Mwanawasa returned from the political wilderness to lead the MMD. His major rivals were Christon Tembo, leader of the opposition Forum for Democracy and Development and Anderson Mazoka of the United Party for National Development. Eight other candidates stood.

Because the opposition vote was split, Mwanawasa won with less than 30 percent. The new president, sworn in in January 2002, denounced European Union monitors for describing the elections as flawed.

In December 2002, Mwanawasa said he might halt the country's ambitious privatisation drive, putting in jeopardy plans by western lenders to write off half of its $7.3 billion debt.

Zambia was one of six southern African countries facing food crisis in 2002. The U.N. World Food Programme (WFP) said in December 2002 that about three million Zambians needed food aid, and that the emergency was worsened by AIDS.

Zambia irked the United States in particular by rejecting genetically modified (GM) maize, despite a deficit of 630,000 tonnes of food. In December 2002, the United States promised to send unmodified sorghum and wheat instead, in the same month that Zambian scientists produced a report saying that GM foods could cause resistance to antibiotics and compromise the immunity of people in poor health.

Sources: Reuters, NI World Guide 2001/2002, CIA World Factbook 2002.

HUMAN DEVELOPMENT INDICATORS

Infant mortality:	112 per 1,000 live births (2000)
Maternal mortality ratio:	650 per 100,000 live births (2000)
Life expectancy:	41.8 years male, 40.9 years female (2000)
Illiteracy:	14.8 percent male, 28.5 percent female above 15 years (2000)
Access to basic care:	66 percent (access to essential drugs) (1999)
Access to safe water:	64 percent (2000)
Human development index value:	0.433 (2000)

Source: UNDP Human Development Report 2002

ECONOMIC INDICATORS

GDP:	K 13.3 trillion ($3.7 billion) (2001)
Per capita:	$370 (2001)
Growth:	5.0 percent (2001)
Inflation:	22.5 percent (2001)
Debt:	$6.1 billion
Defence budget:	K 100 billion ($23 million) (2002)

Source: Military Balance 2002/2003, IISS

MILITARY STATISTICS

Armed forces:	Active 21,600
Army:	20,000 including 3,000 reserves with 30 main battle tanks.
Air force:	1,600 men with 63 combat aircraft, some armed helicopters (very low serviceability)

Source: Military Balance 2002/2003, IISS

COMMUNICATIONS

Civil aviation:	In 1984 there were 127 airports, aerodromes and air strips. There is an international airport 22.5 km from Lusaka.
Railways:	Total length of railways in Zambia was 2,164 km, including 891 km of the Tanzania-Zambia railway, in 1996. There are two major railway lines: the Zambia Railways network, which traverses the country from the Copperbelt in nothern Zambia and links with the National Railways of Zimbabwe to provide access to South African ports, and the Tanzania-Zambia Railway (Tazara) system, linking New Kapiri-Mposhi in Zambia with Dar es Salaam in Tanzania.
Roads:	In 199, there was a total road network of 66,781 km, including 7,081 km of main roads and 13,700 km of secondary roads. The main arterial roads run from Beit Bridge (Zimbabwe) to Tunduma (the Great North Road), through the copper-mining area to Chingola and Chililabombwe (hitherto the Zaire Border Road), from Livingstone to the junction of the Kafue river and the Great North Road, and from Lusaka to the Malawi border (the Great East Road). The 300-km road BotZam highway links Kazungula with Nata, in Botswana and the 1,930-km TanZam highway links Zambia and Tanzania.
Telecomms:	There are nine main telephone lines per 1,000 people (1996).

Source: Europa World Year Book 2002, NI World Guide 2001-2002

Source: http://www.alertnet.org/thefacts/countryprofiles/