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Sustaining growth and reducing poverty

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Vice President:	Gobind T. Nankani
Country Director:	Michael Baxter
Sector Manager:	Emmanuel Akpa
Task Manager:	Peter G. Moll

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ABBREVIATIONS AND ACRONYMS

AGOA	Africa Growth and Opportunity Act	IRPC	Imposto sobre o rendimento das pessoas colectivas (company tax)
CACM	Arbitration, Conciliation, and Mediation Center	MADER	Ministério da Agricultura e Desenvolvimento Rural
CEM	Country Economic Memorandum	MDGs	Millennium Development Goals
CGE	Computable general equilibrium model	MPF	Ministry of Planning and Finance
CPAR	Country Procurement Assessment Report	NGO	Non-Governmental Organization
CPI	Current Price Index	OECD	Organization for Economic Cooperation and Development
CRA	Conselho de Regulação do Abastecimento de Água (Regulatory Board for Water Supply)	PARPA	Programa de Ação para a Redução de Pobreza Absoluta
DHS	Demographic and Health Surveys	PRSP	Poverty Reduction Strategy Paper
EBA	Everything-But-Arms initiative	PPP	Purchasing power parity
EDM	Electricidade de Moçambique	QUIBB	Questionário de Indicadores Básicos de Bem-Estar (qualitative indicators survey)
EU	European Union	PES	Plano Económico e Social (Social and Economic Plan)
FY	Financial Year	RBMMP	Roads and Bridges Management and Maintenance Program, sector-wide program, sometimes referred to as "Roads III"
EPA	Economic Partnership Agreement (with the EU)	ROADS III	See RBMMP
FIPAG	Asset Holding and Investment Company for the five cities' water	ROCS	Roads and Coastal Shipping projects 1 and 2, with World Bank and donor participation
GDP	Gross Domestic Product	RPED	Regional Program for Enterprise Dynamics (at the World Bank)
GNI	Gross National Income	SISTAFE	Sistema Integrado de Administração Financeira do Estado (integrated financial management information system)
GOM	Government of Mozambique	SSA	Sub-Saharan Africa
HIPC	Highly Indebted Poor Countries initiative	TFP	Total factor productivity
IAF	Inquérito aos Agregados Familiares	TFR	Total fertility rate
ICA	Investment Climate Assessment	TIA	Trabalho de Inquérito Agrícola (agricultural surveys)
ICOR	Incremental Capital Output Ratio	UNDP	United Nations Development Program
IFPRI	International Food Policy Research Institute	VAT	Value added tax
ILO	International Labour Office	WB	World Bank
IMF	International Monetary Fund		
INE	Instituto Nacional de Estatística		
INNOQ	Instituto Nacional de Normalização e Qualidade		

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EXECUTIVE SUMMARY

Introduction

i. Mozambique has staged a dramatic recovery from the damage of the civil war. Since 1992, infrastructure has been improved and is now approaching its pre-war levels, and incomes have risen considerably. The poverty headcount fell from 69 percent in 1996/7 to 54 percent in 2002/3. On average the economy grew by 8 percent annually between 1996 and 2003. This accomplishment can be attributed to the Government's phased but determined approach to stabilization and structural reforms, as well as to concessional assistance (half of Government expenditures), a remarkable agricultural "catch-up", an expansion of agricultural exports, and fast expansion in tourism, construction, and certain manufacturing subsectors. Another factor was the authorities' success in attracting "mega-projects" in aluminium smelting, natural gas, and titanium mining, and a resulting tripling of exports in three years.

ii. Another factor which was a precondition for all of the above is the fact that the country was successful in bringing about reconciliation, ending the civil war, and in managing potential conflicts since that time. Mozambique has just had its third general and presidential election.

iii. Nevertheless the country remains poor (\$240 per capita income); infrastructure is inadequate, there are serious unmet education and health needs, and poverty rates remain high. Many of the "first-generation" reforms associated with market liberalization have already been implemented. The country now faces the prospect of tightening macroeconomic constraints, a need for substantial institutional improvement to make growth sustainable, a increasing need for better prioritization and management of public expenditures, to eliminate absolute poverty, and massive investment in infrastructure to promote growth and further reduce poverty.

iv. ***Objective and structure of the Country Economic Memorandum.*** This Memorandum has examined the growth-poverty linkage, using a wide variety of data sources, including the recently completed national household survey (2002/3). It has sought to understand the sources of growth in the recent past, to evaluate the prospects for growth in the next decade, to examine the likely implications for poverty, and to outline the policies that will be needed to achieve further growth and poverty reduction. The reason for this focus at this time is that the Government was planning to develop its second Poverty Reduction Strategy Paper (termed PARPA in Mozambique) and it was felt that a substantial contribution in the area of growth and poverty might make a useful contribution.

v. In addition – on account of the light coverage the subject has received in other sector work, Bank-produced and otherwise – the Country Economic Memorandum also examines the relevance of natural resource management to growth and poverty objectives. It was found, in the event, that natural resources are of great importance for both growth and poverty reduction. Hence it is hoped that in the future the natural resource issues will be fully integrated with the national policy discussions.

vi. After the preparation of the CEM had begun, the Government made an additional request, namely that it include a chapter on private sector development. This had not formed part of the original plan, because a great deal of valuable research had already gone into this important subject (as is documented in Chapter 4, p. 47). Hence it was agreed that the contribution of this Memorandum would not be to break new ground in the area of private sector development, but to arrive at a workable synthesis and prioritization of the many disparate recommendations arising from these efforts.

vii. This Executive Summary pulls the arguments together in the following sections:

- The growth and poverty record
- Challenges to growth and poverty reduction: *private sector development*
- Challenges to growth and poverty reduction: *natural resources*
- Growth and poverty outlook

The growth and poverty record

viii. Mozambique's population of 19 million is projected to grow at about 2.4 percent annually between 2005 and 2010. Since dependency rates are falling, and the country is one of the most land-abundant in Africa, population dynamics have not been a major driver of poverty trends; indeed, demographic dynamics have helped support rising per capita incomes and falling poverty. The urban working population is expected to grow at 4 percent until 2010, underscoring the need for a growth path with job creation.

ix. ***How was 8 percent growth accomplished?*** The preconditions for healthy growth were met with a tolerably stable macro environment, steady progress towards liberalizing key sectors (for example telecoms, air transport), and steady progress in freeing up internal and external trade. In addition, there were several idiosyncratic factors including massive concessional assistance. These are discussed in the ensuing paragraphs.

x. As concerns the macro environment, inflation was brought down from over 60 percent to single digits in the late 1990s, and despite some slippages in the wake of the banking crisis in 2000-2002, is expected to remain in the single digit range in the future. Government spending increased markedly (24 percent of GDP in 1997 to 30 percent in 2002, then falling to 24 percent by 2004) but there was little borrowing from the banking system as the spending was funded from increased concessional assistance (and from a modest increase in revenues). Since 2001, the Government's fiscal and monetary stance has been guided by the Program of Action for the Reduction of Absolute Poverty (PARPA), which stresses the key role of macro stability, envisages steady increases in revenue, and brooks no borrowing from the banking system.

xi. As concerns liberalization, state-sponsored interventions in the agricultural economy were all but eliminated by the mid-1990s. Telecoms were liberalized significantly from 2001 onwards and cell-phones increased from 51,000 in 2001 to 700,000 by 2004. Air traffic was liberalized in 2002, and 2004 saw the first new entrant competing on domestic routes, and the first tourist charter flights.

xii. As regards trade, through the 1990s, import tariffs were steadily lowered to the point where average tariff is 9 percent, one of the lowest in Africa. The plan is to reduce the top tariff rate to 20 percent in 2006. Management of customs was contracted out

during the 1990s, and the efficiency of collection improved. Export performance has been strong, growing at 22 percent annual growth (in US\$ terms), well above the performance of world exports (6 percent), making Mozambique one of the few countries in Africa whose share in world exports has risen. Most of the export expansion was, however, due to mega-projects; traditional exports grew at only 2.3 percent.

xiii. In addition, Mozambique benefited from three idiosyncratic factors:

- *Agriculture*, which supports 80 percent of the population, grew at 6.8 percent per annum between 1992 and 1997, slowing to 4.6 percent per annum between 1997 and 2003 (including the impact of the floods of 2000). The main contributors are foodgrains (maize), sugar and tobacco. About half of the growth between 1992 and 2003 was due to area expansion (2.4 percent annually), and the remainder labor force growth and yield improvements. Growth in certain regions such as Tete has been stronger owing to trade. A substantial part of the growth is due to a “bounce-back”, in two senses. Some of it took place as crop yields, which had fallen precipitously during the socialist period and the war, quickly recovered to their original levels during the 1990s. In the other sense, during the course of the 1990s the area harvested rose back to its original pre-war levels, as war refugees returned to their farms. In addition, *off-farm income* (micro-enterprises, wages and remittances) were important in the three southernmost provinces which depend on links with Maputo city.
- Mozambique is one of the big recipients of *concessional assistance* in Africa (some 12-15 percent of GDP, accounting for half of Government spending). The aid succeeded in assisting the Government to pursue its aims of improving access to and quality of services – to judge by the improvements in education, health and roads – and in improving somewhat the level of fiduciary accountability. (An exception is HIV/AIDS which continues to spread.) Modeling approaches show that aid was responsible for a substantial part of Mozambique’s impressive growth record.
- Another factor is the *mega-project* phenomenon. Attracted by fiscal benefits and natural resources, several very large investors entered Mozambique after 1997, starting with the MOZAL aluminium smelter. By 2002, these accounted for 7 percent of GDP. Their contribution to GDP growth was perhaps as much as 1.6 percentage points annually. Their share of GDP will rise to 10-11 percent by the end of the decade. The megaprojects helped “put Mozambique on the map” and will probably encourage *non-megaproject* investment also. All these effects have been positive to a greater or a lesser degree, and no negative effects have been observed. Hence there is at least a *prima facie* case that the authorities’ unorthodox policy of tax incentives has been successful.

xiv. All this meant that growth was broad-based. In addition to agriculture, there was substantial growth in some parts of the private formal sector – manufacturing, transport, communications, services, mining – where average growth rates (in real terms) between 1995 and 2003 varied between 5 and 15 percent annually. Some of this was due to the reestablishment of traditional markets such as tourism from the region, hotels and restaurants. Some constituted new investment, much of it from neighboring countries. This was growth from a very low base and so these rates are not likely to be as high in the future. The number of people active in the urban informal sector grew at the fast clip of

7-8 percent, driven by rural-urban migration and fast growth of the working age population.

xv. These observations should be tempered by noting that this remarkable growth spurt occurred *despite* an unpropitious institutional environment in many respects (see Chapter 4): a weak judicial system, an inability to enforce contracts or retrieve collateral, a troubled financial sector, undeveloped “civil society” institutions, low civil service capacity, and poor (though improving) infrastructure. On the other hand, there were compensating institutional factors: a fairly unified government with a firm commitment to poverty reduction, an ability to embark on reforms as needed, the absence of armed conflict, progress in lowering trade barriers, and free entry into agricultural marketing.

xvi. ***How did poverty fall?*** Using the Government’s poverty line, the poverty headcount fell dramatically, from 69 percent in 1996/7 to 54 percent in 2002/3. The fall was faster in rural areas (from 71 to 55 percent) than in urban areas (62 to 52 percent). Nonetheless, poverty continues to be primarily a rural phenomenon because the bulk of the population is rural.

xvii. Poverty can also be measured by assets, access to services, and social outcomes. These also improved. Radio and bicycle ownership rose. Safe water access rose from 24 percent to 37 percent. As of 1996/7, 8 percent of all adults had completed primary school (EP2); this rose to 11 percent by 2002/3. The key health indicator is the infant mortality rate, which fell from 149 in 1995 to 101 in 2003, one of the fastest reductions observed in Africa.

xviii. More generally, consumption as measured by the household surveys increased at an annual average rate of 4.6 percent. Furthermore, consumption rose throughout the income spectrum. For example, the consumption of the poorest 20 percent of the population rose by 23 percent between 1996/7 and 2002/3, or 3.5 percent annually.

xix. As for the regions, poverty decreased in all provinces but Cabo Delgado and Maputo province. These latter anomalous findings may, however, be discarded. That for Cabo Delgado is due to sampling errors in the household surveys. That for Maputo province is due to the fact that the food consumed in the area is more expensive, being of higher quality.¹ If it were possible to standardize for food quality, the poverty rate in Maputo province might well have *fallen* between 1996/7 and 2002/3.

xx. Several policy-relevant factors can be identified as having had considerable importance in reducing poverty between 1996/7 and 2002/3:

- From the sectoral point of view, the dominant factor in explaining Mozambique’s poverty performance is the good performance of agricultural households. This is because of the vast size of the agricultural sector relative to other sectors of employment.
- The increase of education helped to reduce poverty. This is because the levels of education rose, and because the impact of education on wages (and consumption) is considerable. The impact of an extra year of education on the wage is of the order of 3 percent in agriculture in rural areas, and between 5 and 15 percent in non-farm activities in rural areas, and also in urban areas; and the impact rises at the ES2 and tertiary levels.

¹ See the main text (page 31, footnote 64) for further discussion of these data.

xxi. **Linkages between growth and poverty reduction.** How did the growth process contribute to reducing poverty in the period 1996 to 2003? First and most important is to note that while GDP grew at 8 percent in the period 1992 to 2003, private consumption as measured by the national accounts grew at a more modest 2-4 percent, depending on the specific time period.² (The wedge between these was due to rising investment rates and steeply increased exports associated with the megaprojects.) It was this consumption growth that led to the observed reduction in poverty.

xxii. Second, it is worth noting that growth was “pro-poor”. For the purposes of the Country Economic Memorandum, pro-poor growth is defined as the mean rate of growth of consumption of people below the poverty line. This “rate of pro-poor growth” is strongly positive (3.9 percent per year). No important region or occupation was left out of the growth process.

xxiii. The specific linkages between growth and poverty reduction can now be enumerated. As mentioned above, growth in agricultural output, partly due to area expansion and partly due to improved productivity, reduced poverty directly in rural areas (and some urban areas). Non-farm pursuits in rural areas likewise helped to reduce poverty directly, particularly in the three southernmost provinces where there were closer market linkages. The increase in consumption that is observed at all levels is financed by increasing income. Employment income³ rose considerably between 1996/7 and 2002/3: the average household’s employment income was Mt 5,500/day in 1996, and this rose to Mt 15,000 in 2002/3.⁴

xxiv. As the economy grew, structural change occurred in the expected ways. Value added grew faster in services and consequently employment growth was faster in services. Value added grew more slowly in agriculture and consequently employment growth in agriculture was lower, and people moved from rural areas to urban.

xxv. During this period, Government spending – backed up by donor support – focused on the PARPA priorities of education, health, roads, water and agriculture. Each of these spending areas helped to reduce poverty, directly or indirectly:

- Increased education spending raised the (gross) enrolment rate in lower primary schooling from 56 percent in 1995 to 110 percent by 2003. The completion rate for EP1 rose from under 20 percent in 1990 to 40 percent in 2003. The number of adults with completed primary school rose from 8 percent in 1996/7 to 11 percent in 2002/3. The superior educational levels permitted better earnings in the labor market and raised the productivity of informal sector operators.
- Health spending increased access to health facilities and assistance (e.g. increased vaccination coverage), and to this extent reduced poverty *directly*. In addition the improved health status of people has improved their productivity, which presumably helped to reduce poverty *indirectly*, as working adults are now more likely to be able to obtain medical care when it is needed, and the total fertility

² These figures are lower than the measure from the household surveys of 1996/7 and 2002/3. This does not necessarily imply that either is mistaken. See the discussion in footnote 45, p. 14.

³ “Employment income” here refers to the sum of formal and informal employment income. The precise shares of the two are unknown. See footnote 4.

⁴ These figures are in constant 2002 Mt. Problems of definition beleaguer the measures of informal income, and hence also total income. Hence here we stress: (a) consumption, and (b) employment income.

rate has fallen in response to the falling infant mortality rate, thus freeing more women for market work. Efforts to stem the HIV/AIDS epidemic have not yet succeeded, however (see paragraph *xxvii* below).

- With spending on road rehabilitation and maintenance, between 1992 and 2003, roads in good or fair condition rose from 10 percent to 70 percent of the classified network, and impassable roads decreased from 50 percent to only 5 percent. The impact on poverty is direct, *via* employment in road rehabilitation and maintenance efforts, and also indirect, *via* cheaper transport, lower margins, more trade, better farmgate prices for farmers, and lower prices of consumer goods in remote areas.
- Water spending raised access to safe water from 12 to 27 percent in rural areas, and from 54 to 64 percent in urban areas, between 1996/7 and 2002/3.⁵ This likely reduced the amount of water-borne disease (e.g. diarrhea and cholera).
- Agricultural extension, and also encouragement of outgrower schemes (cotton, tobacco, oil seeds, vegetables) helped to drive agricultural GDP growth of 5.6 percent annually between 1992 and 2003.

xxvi. In two areas, the links between growth and poverty reduction were not as strong as might have been expected:

- The formal sector created little employment. The growth elasticity of formal sector employment was 0.1,⁶ low compared with other countries. A factor behind this may be the restrictive labor legislation which makes it unattractive to expand employment. (See further comment on the labor law at para. 120ff, p. 40).
- The mega-projects contributed greatly to value added, but have so far had a small (though growing) impact on employment or on local business via backward linkages. By 2010 the mega-projects will probably account for some 2 percent of private sector employment, and it is expected that backward linkages will increase in the future. The main contribution of the mega-projects to poverty reduction is via their tax contributions, which are expected to rise to 3 or 4 percent of Government revenues by 2010. This reinforces further the point that government expenditures need to be made as efficient as possible so as to make good use of these increased revenues.

xxvii. And finally there is one area of poverty-relevant outcomes in which neither growth nor Government efforts have been able (yet) to stem a deterioration: **HIV/AIDS**. Prevalence of the disease has risen remorselessly, from 12 percent in 2002 (Arndt, 2003) to 16.2 percent in 2004. The impact of the epidemic is likely to grow more serious during the next decade. By 2010 life expectancy at birth is expected to drop from 43 to 36 years, rather than increasing to 50 years. The macroeconomic and social costs are large. A modeling approach indicates that the advance of AIDS reduces per capita GDP growth by as much as 1 percent per annum, because of reduced productivity growth,

⁵ Figures from the household surveys. See the discussion in paragraph 270 (p. 80) and footnote 128 (p. 80) about measurement of access to clean water.

⁶ This refers to firms unaffected by restructuring and privatization of state enterprises in the mid-1990s. See the discussion in paragraph 120 (p. 40), and footnote 85, as well as Benito-Spinetto and Moll (2005) for details.

reduced human capital accumulation, and reduced physical accumulation, not to mention the dramatic social burden of the disease.

xxviii. The Government is seeking to respond to the challenge. There is a national HIV/AIDS strategy in place, as well as a national HIV/AIDS secretariat. HIV/AIDS mitigation plans are being executed in the major ministries. There is no lack of donor funding. But execution rates have been low – execution was only 70 percent of plan in 2004 and of the World Bank-funded HIV/AIDS project only US\$ 5 million was spent in the first two years. Better training and management is urgently needed.

Challenges to sustained growth and poverty reduction

xxix. Mozambique appears to be well placed to experience a long period of sustained per capita growth, and also to achieve some of the key Millennium Development Goals, such as the expected halving of the poverty rate by 2015. Nevertheless there are many remaining challenges. There remains the possibility that with swifter progress in certain key reforms, the growth rate could be as high as 7 or 8 percent in the long term, and that poverty reduction could be quicker. The likely growth scenarios for the future – and the corresponding poverty scenarios – are discussed below (para. lxxx, page xxvi), but before speculating on the overall growth rate it is essential to examine the factors that will influence growth patterns in the future, and consider the Government's role in warding off threats to continued growth, as well as its role in seizing new opportunities for growth. The following sections explore these.

xxx. The challenges facing Mozambique's decision makers can be divided into three categories: *macroeconomic management*, *private sector development*, and *natural resources*.

Challenges to growth and poverty reduction: macroeconomic management

xxxi. It was mentioned above that Mozambique's tolerably good macroeconomic performance was one of the pillars of its excellent growth record in the past decade. Nevertheless dangers remain in two interrelated areas: macroeconomic stability, and public finance management. Without improvements in these areas, the country's high growth rate will be put at risk.

xxxii. **Macroeconomic stability.** Today it is common cause that macroeconomic stability and predictability is the crucial foundation for growth and poverty reduction. This encompasses both *price stability* and *fiscal control*. The immediate losers from an inflation spike are the poor, as it acts as a regressive tax. In the medium term the poor lose also, because investors are scared away and growth and employment opportunities decline.

xxxiii. Despite the country's growth record and progress on the macroeconomic front, there is still a danger of price instability. Reorganization of the banking system in the mid-1990s, together with tight money, resulted in single-digit inflation up to 1999. But there have been two phases of inflation brought on by lax monetary policy, one starting in 2000 and resulting in inflation of 17 percent in 2002, and another in 2003/4 resulting in inflation of 17 percent in early 2004, subsequently falling to 8 percent by January 2005. In these instances, monetary policy had to be tightened by increasing reserve requirements, raising the bank rate and/or accelerating the sale of foreign exchange reserves to the public.

xxxiv. By less developed country standards, Mozambique has maintained a good record of fiscal discipline in that it has on only a few occasions resorted to borrowing from the banking system in order to make up for a fiscal deficit.⁷ The public internal debt stock is around 4 percent of GDP.

xxxv. The present problem on the fiscal side is that revenue performance slackened during 2004, and it needs to improve because the Government's spending requirements in education, health and infrastructure will likely continue to rise, at least *pari passu* with population. In addition, aid as a percentage of GDP is likely to fall from its very high level of 15 percent currently. The plan of the PARPA was to raise revenue to 15.4 percent of GDP by 2005; by 2004 this had reached only 12 percent. Hence it is imperative that Mozambique raise more domestic revenue to support its poverty reduction programs and ultimately reduce aid dependency.

xxxvi. The public external debt was considerably reduced through two HIPC operations. Combined with the country's excellent prospects for exports, the net present value of foreign debt service divided by exports is projected to fall from its 2004 level of 84 percent to 50 percent by 2020. Values of 125-150 percent are considered in the HIPC context to indicate a debt overhang problem. Hence by this standard, Mozambique is well clear of a growth-reducing debt overhang, at least on the external side.

xxxvii. Mozambique's exchange system is a managed float. The real effective exchange rate has slightly depreciated since the 1990s. Even though aid payments have amounted to 12-19 percent of GDP, this has not caused a significant appreciation of the currency. A general equilibrium model built to test this indicates that the increase in productivity generated by the aid moneys (e.g. roads, education) has compensated for the aid-driven upward pressure on prices of nontradables, thereby sparing the country from the export-depressing effect of "dutch disease". The key point is that the exchange rate should continue to be responsive to market trends.

xxxviii. **Public finance management.** Mozambique's fiduciary accountability can at best be described as weak, although the Government is taking measures to improve it. The weakest areas are accounting, auditing and procurement. This is a matter of concern in its own right. It will also be critical for growth in the next decade, because:

- improved spending efficiency is needed to achieve better service delivery, which in turn is needed to spur growth, particularly in infrastructure, education and health. It has been found that public works are substantially (20-30 percent) more expensive in Mozambique than in the region;
- total expenditure can no longer expand at the rate it used to. Total expenditures are likely to remain at 24-25 percent of GDP. Hence it will be essential to secure efficiency improvements in the future;
- without steady improvement in public finance management some of the donor funding may be put at risk. This is important because Mozambique is receiving more aid than many other countries. The justification for such generosity is that the aid is being well used – as evidenced in high growth rates and big

⁷ A notable blemish on this record occurred in 2001-2 when two banks were bailed out. The country is still bearing the cost of the "inefficient forbearance" that led to the banking crisis, because the bonds have not yet been repurchased and the issuance of new paper is a contributory factor to high interest rates.

improvements in social indicators – but if any of these is let slip, Mozambique’s special justification will fall away and its rather weak fiduciary record may well result in its aid levels falling.

xxxix. The Government has embarked on a sequenced program of reform, starting with a new financial management law in 2001 and accompanying regulations in 2002, which set the basis both for modern accounting procedures and for procurement reform. The electronic financial management system SISTAFE is being piloted in two ministries in 2005. Next will be the rollout to other sectoral ministries during 2006. Then should follow the improvement of the classifiers (program, functional, regional) so as to provide detail sufficient to permit analysis of poverty impacts. In parallel, the regulations and institutions governing procurement are being revised so as to promote competition and transparency.

xl. A further important task is to coordinate the SISTAFE implementation with the reform of public sector, and in particular to enable coincidence between the staff establishment held by the Ministério da Administração Estatal and the pay list of the Ministry of Finance. In so doing it will be necessary to eliminate supernumerary staff: the Government’s public expenditure review of education in 2003 concluded that as many as 20 percent of the staff in primary education were not properly accounted for.⁸

Challenges to growth and poverty reduction: private sector development

xli. Here we refer to the long pending agenda of reforms aimed at promoting private sector initiative in business and removing barriers to investment by domestic and foreign firms. There is little in this section that is distinctively new. The contribution of the Country Economic Memorandum in the area of private sector development has been to come up with a feasible prioritization of tasks – legislative, regulatory, administrative – to facilitate business investment. This prioritization has been concisely summarized in Table 28 (p. 68). In the following paragraphs, a “short list” of interventions are discussed:

- facilitating trade
- energy reform and investment
- financial access

xl.ii. **Facilitating trade.** Rapid expansion of exports has been an important source of growth during the past 10 years in Mozambique. Since the early 1990s, exports have expanded at a rate (10 percent) substantially higher than world exports (6 percent). Mozambique is one of the few countries in Africa that managed to increase its share in world exports. This rapid export expansion was led by private initiative, both national and foreign.

xl.iii. As in other countries, for Mozambique, a private sector-led, export-based growth strategy has the greatest long-term potential to sustain a high growth rate in light of the existing conditions: the domestic market is limited, and has relatively low purchasing power. Additionally, given that the national saving rate is not high enough to generate adequate growth to make a marked impact on poverty, a particular emphasis needs to be placed on attracting foreign direct investment.

⁸ See the discussion on education sector employment in World Bank (2003b).

xliv. Among the reasons for Mozambique's export success is persistence in reform. Mozambique has liberalized its imports significantly, as was noted above (paragraph *xii*, page *xii*). Mozambique is committed to further liberalization through SADC Trade Protocol, and will negotiate further duty phase down in the context of the Economic Partnership Agreement (EPA) with the EU.

xlv. Many challenges remain. It was noted above (paragraph *xii*, page *xii*) that most export growth was due to mega-projects, and that "traditional" exports grew slowly. While the production of aluminum, gas, titanium and electricity will continue to be the main sources of export growth, the key challenge in broadening the base for value added growth to achieve poverty alleviating objectives will be the removal of barriers so as to allow small and medium enterprises to contribute more.

xlvi. Much needs to be done to improve the support services for exports to eliminate the anti-export bias inherent in the import duty system. The priorities are: extension of export incentives to small companies, acceleration of value added tax (VAT) reimbursement, improving the access of firms to the financial system, and improving standards and the capacity to meet the sanitary and photo-sanitary requirements, particularly for the EU market. Given that the macro-economic and fiscal conditions are improving and the exchange rate regime is broadly appropriate, the key constraints on promoting export-led growth are "behind-the-border issues":

- the weak infrastructure system (including electricity and roads), which still requires enormous investment as well as policy improvement, and
- the cumbersome investment climate (e.g. slow import clearance, complex taxation procedures, slow business startup, a non-functioning judicial system, high transportation costs, and high lending risk).

xlvii. **Energy reform and investment.** An area calling for strong policy orientation, as well as substantial investment, is energy. Some 64 percent of manufacturing firms rate electricity as their most serious infrastructure problem. They report some 17.5 power outages per month. Electricity access increased from 4 percent in 1996/7 to 7 percent⁹ in 2002/3 (240,000 households), but the bulk of the new connections were in the best-off quintile of households, whose access rose from 11 percent to 18 percent. In any case, the pace of new connections – at the historical record of 8,000 per year¹⁰ – is only slightly higher than that of population, so that the low electrification rate is set to stagnate. As things stand, the poorest 80 percent of households will not obtain electricity for decades. This envisaged future stagnation in electricity access contrasts unfavorably with the improvements that are foreseen in telecoms, water, roads and other aspects of infrastructure.

xlviii. An integrated and coordinated approach is called for, combining policy, restructuring and increased investment. In the short term,

- The financial and operational performance of Electricidade de Moçambique (EdM) should be upgraded, and energy losses reduced from 20 to 8-10 percent.

⁹ See Fox *et al.* (2005), Table 5.

¹⁰ See de Barros (2005), paragraph 52. Between 1996 and 2000 (4 years), there were 31,000 new connections.

- Consumer services should be improved drastically, for example, by greatly expanding pre-paid services, thereby improving revenue collection.
- Investment should be increased to intensify connections where the backbone supply lines are already in place. The network should be further rehabilitated and reinforced.

In the medium term,

- Institutional and legal reforms should aim at establishing an enabling environment conducive to the sector's development, with adequate regulatory capacity.

xlix. **Improving access to and the cost of finance.** The vast majority of firms in Mozambique state that the lack of access to finance, and its high cost, are severe problems for their growth. Interest rates are higher in Mozambique than in countries at a similar level of development. This is partly because interest rate spreads are high (19 percentage points), in turn because of high loan losses and high overhead costs. Only 29 percent of firms have bank loans; several countries at similar income levels do much better in this regard, e.g. Eritrea at 45 percent of firms. Small firms face even greater barriers in terms of access.

l. Several reforms are therefore indicated. Banking supervision needs to be strengthened further, through bringing loan classification into line with international practise and building the core knowledge of supervision staff. A commercial court could be established, dealing with the largest cases. Simultaneously, more judges should be trained in commercial dispute resolution, and judicial procedure should be simplified to reduce procedural complexity. The scope and reliability of the credit registry administered by the Bank of Mozambique needs to be increased. To develop the capital market, which is very small, the first objective should be to develop further the market for public securities, thereby providing a market-driven benchmark for the issuance of private securities.

li. Finally, improving access to finance for micro enterprises would also contribute to lessening the constraint imposed by the high cost of capital in Mozambique. Although the microfinance industry has grown, its outreach is small, with a high concentration in Maputo. Important bottlenecks need to be eliminated, including restrictions on deposit taking. The current legislation under preparation should allow micro finance institutions to take deposits. It would be well served if it benefited from expert advice in finalizing the micro finance law.

Challenges to growth and poverty reduction: natural resources

lii. An important part of increasing growth and reducing poverty is *improving the regulatory framework for natural resources*, specifically in water, mining, rural land, fisheries and forestry. These areas receive this focus, and are gathered together in this section, because (a) collectively they are vital for economic growth, (b) they are key for poverty reduction (especially water) and for subsistence (forestry, fisheries, rural land), (c) their misuse would result in environmental unsustainability and would threaten the growth process as a whole, and (d) certain of them serve as excellent case studies for efficiency, governance and investment perspectives.

liii. In Mozambique, certain characteristics are common to these five natural resource areas:

- an overall regulatory environment that seeks to protect the poor through open access and/or zero rent extraction by the state;
- a reluctance to use transparent procedures for allocation of resource use rights;
- under-collection of rents that would rightly accrue to the state,

and from this follows an inefficient use of resources, less economic growth, lower government revenues, and consequently less poverty reduction. Hence, as will be explained in the ensuing paragraphs, improvements in natural resource management will be crucial for growth and poverty reduction.

liv. Water. Of the five natural resources, the one needing the most attention by policy-makers is water: small-scale irrigation, flood and drought mitigation, and water supply all have roles to play in poverty reduction.

lv. Water for irrigation. About one-tenth of the country's 36 million hectares of cultivable land is suitable for irrigation. Land under cultivation is 4.3 million hectares, of which only 0.9 percent is actually irrigated – the least in the region.

lvi. In a context of limited water storage capacity, and a lack of financial resources, the best use of public resources would be to concentrate on improving conditions for smallholder farming. For cost effectiveness, the focus would best be on small-scale, low-cost schemes rather than large projects. Encouraging smallholder irrigation would also lead to increased high-value crops and increased incomes for some of the nation's poorest households. While there is substantial potential for the expansion of commercial irrigation, this should be driven by the private sector. The role of the Government is to put in place the legal, institutional and regulatory framework, as well as to support the development of water storage infrastructure provided this is linked to multi-purpose projects (energy / water / transport / drought management).

lvii. Water resources infrastructure. The useful capacity of Mozambique's dams represents only 5 percent of the mean annual runoff of the country's rivers, excluding the Zambezi. Thus the country needs to develop its infrastructure to store a larger share of the runoff.

lviii. The Government could make significant progress in reducing vulnerability to droughts by dealing with issues related to rural water supply, irrigation water for smallholder farming, and the operation and maintenance of existing systems. This could be complemented by negotiation with upstream riparians (to ensure that the operation of upstream reservoirs does not aggravate floods in Mozambican territory), and warning systems that would serve both for the management of droughts as well as floods. Small dams and reservoirs should be built in the most drought-prone areas. Two major dams are urgently needed for the water supply of Maputo and of Beira and for irrigation in the Lower Pungoé. Medium sized dams are also required to ensure the water supply to several lesser cities. For flood attenuation, storage reservoirs are called for, provided the operating rules for all new and existing dams are reviewed and adjusted to balance needs in terms of flood attenuation and other uses. Major beneficiaries of this infrastructure would be the poor, who tend to be more vulnerable to meteorological risk.

lix. Water supply. The lack of clean water is a factor in poor health and lowered work productivity. Here we build on work done by the Public Expenditure Review of 2003 – informed by the dramatic finding, which was not available for the latter study, that rural water access is lower than had been thought (namely 27 percent as opposed to

40) and urban water access is higher than had been thought (64 percent as opposed to 38).¹¹ Much improvement is called for, particularly in rural areas.

lx. Recent new directions in urban water supply have turned out to be a success story. As of 2002, household connection coverage in Maputo amounted to 70,000, and water ran only 9 hours per day. The government opted for a “delegated management” model, introduced by competitive bidding for five major cities. A private sector contractor commenced operations in 2002. Within two years it was evident that the right decision had been made: coverage in Maputo increased to 90,000 connections, and supply improved to 13 hours, and the urban water sector has attracted further investment.

lxi. In parallel, the government has pursued the “demand driven approach” in rural areas, which requires communities to make a specific request for the installation of a water source, pay an upfront fee, and take responsibility for its maintenance. Even so, at any one time about 30 percent of wells are non-functional for lack of spare parts.

lxii. Despite the evident progress made, persisting with the present arrangement is inadequate. Whereas in access to basic health and education Mozambique frequently equals or exceeds the Africa average, in rural clean water access it is well behind, at 27 percent, compared with Africa’s 46.5 percent. Gross primary school enrolment is now over 100 percent, and vaccination coverage 82 percent, so the “missing link” in rural livelihoods is now the absence of clean water.

lxiii. An integrated strategy of *swift expansion of access to clean water* should maintain two principles: cost-effectiveness, and the “demand-led approach” – for absent the latter, the proportion of non-functional wells will quickly soar beyond its present 35 percent level. In addition, mechanisms should be designed to ensure that spare parts are available as required and that community capacity is built up. This mammoth expansion can be attained by

- *Increasing resources* and personnel in rural water access. This may entail reallocation from sectors of lesser priority. Although the approach will continue to be demand-driven, the binding constraint presently is not communities that satisfy the criteria but staff, capacity-building and funding to permit the roll-out.
- *Investigate the factors underlying high drilling costs.* In particular, consider whether subjecting more work to tender and having less done by parastatals would reduce costs.
- *Expand standpipe access* in urban areas. This can be done at lower cost than by expanding household tap connections. One possible management model is subcontracting to individuals (as is being done in some Mozambican towns such as Angoche).
- *Licensing privately operated water kiosks* as is done in other African cities.
- *Increase co-payment in urban areas.* In all cities, and particularly the smaller ones, the tariffs need to be raised so as to cover operation and maintenance and make a contribution to debt service.

¹¹ Figures from the household surveys. Access to water from improved sources in rural areas was raised from 12 percent in 1996/7 to 27 percent in 2002/3, and in urban areas from 56 percent in 1996/7 to 64 percent in 2002/3. See the discussion in paragraph 270 (p. 80) and footnote 128 (p. 80) about measurement of access to clean water.

lxiv. **Mining** is becoming an increasingly valuable natural resource. The recent purchase by a Brazilian mining firm of exploration rights in the Moatize coalfield has underscored the excellent prospects for this sector. Presently the sector accounts for just under half a percent of GDP, and contributes fiscal revenues of \$3-5 million (apart from the payments by the latter coal prospecting company). The number of firms has doubled since 2001. This is partly due to progressive legislative changes and the introduction of an innovative and transparent Mining Cadastre, which incidentally serves as an example for other needed institutional reforms (e.g. land, fisheries, forestry). Artisanal and small-scale mining provides an occupation, full-time or part-time, for 100,000 people scattered throughout the country.

lxv. However, Mozambique's mining output is still well below that of countries with similar geological potential. Annual exploration expenditures could easily rise from their present level of US\$15-25 to US\$ 50-100 million per year.

lxvi. To achieve this, the system of mining taxation needs to be brought in line with the tax arrangements for the remainder of the economy. The current system is globally uncompetitive. It consists of the general income tax code (*Imposto sobre o rendimento das pessoas colectivas – IRPC*), plus the royalty and the surface tax for the holding of permits, plus the *Código dos Benefícios Fiscais* (2002). The system is unattractive to private investors because the royalties can place a large burden on companies during mineral market downturns, and because the IRPC does not permit accumulation and carry forward of expenditures during the exploration and development phases. Hence the arrangements for mining firms need to be revised, to make them globally competitive, and to secure a fair share for the government.

lxvii. Artisanal miners, who are generally poor, should continue to enjoy free access to mineral resources.

lxviii. **Rural land** administration has been reformed by a new land law (1997) and regulations (1999): customary tenure arrangements gained official sanction, and consultation was mandated prior to issuance of new concessions. The law succeeded in its main aim of protecting the traditional land use rights of smallholders.

lxix. These reforms are still inadequate. Since land cannot be owned, the only barrier to acquiring rights to its use is bureaucratic; not surprisingly, concessions to large tracts of land are still being awarded virtually gratis. The lack of an official land market creates opportunities for rent seeking and is inefficient because land rights will not naturally gravitate to their most productive uses. When improvements in rural areas are sold, the land concession on which they stand does not automatically accompany the sale. Further permissions have to be secured before the concession may be transferred, creating further opportunity for rent-seeking behavior. A further difficulty is that concessions are subject to bureaucratic interference, due to the requirement for a land use plan. Such interference creates a justified perception on the part of potential large-scale farmers that tenure is too insecure to merit large investments.

lxx. Substantial efficiency improvements could be obtained by

- changing the regulations to allow land use rights to *automatically* accompany sales of buildings and improvements, without bureaucratic interference; and
- substantially increasing the land tax for medium- and large-scale concessionaires, thereby obliging landholders who are not making productive use of their land to

transfer it to others who would. The concessionaires could be compensated by being relieved of the requirement for use plans altogether. This would increase the perception of land tenure security and encourage further investment.

lxxi. **Fisheries** account for 1.5 percent of GDP and 10-15 percent of exports; most of this arises from industrial and semi-industrial shrimp fishing. Artisanal and subsistence fishing are also important in that they provide employment for an estimated 90,000 people. There are three large industrial and some 200 semi-industrial companies involved in shrimp fishing. License fees amount to US\$ 5 million annually, although this falls well short of the full resource rent for reasons which are elucidated in the main text (see 304, p. 88). The Government has been pursuing a strategy of promoting local (viz. Mozambican national) participation in shrimp fishing, using a Government-controlled firm Emopesca to form joint ventures. This was achieved by issuing substantial numbers of new quotas to new entrants, and this without reducing the industrial fleet participation. Not surprisingly, the total fishing effort has increased by a factor of three since the late 1970s, although the total catch has remained nearly constant.¹²

lxxii. However, the allocation procedure of the new licenses was not transparent, with substantial values being transferred without clear regulation or distribution criteria. In any case the arrangement has not been as successful as had been planned at the start, in that the Mozambican operators have not been able to develop their share and national operators remain scarce.

lxxiii. The leakage of the resource rent needs to be addressed. This could be achieved by a “two-track” arrangement. *International access* could be arranged best by an auction system. This would considerably increase the total rent received by the Mozambican state.¹³ The reason for not advocating the “first-best” efficient method of an auction system throughout is that this would likely exclude national operators almost altogether. Hence for *national access*, a clear set of publicly available criteria for quota distribution is required, to ensure predictable and fair systems for users, and also to secure social benefits from natural resource exploitation. Such “grandfathering” should be phased out within a predefined period of, say, five years.

lxxiv. Artisanal and subsistence fisheries are an important poverty buffer. General community development has been initiated as part of fisheries development, with assistance from the *Instituto de Desenvolvimento Pesqueiro de Pequena Escala*. Artisanal fisheries are subject to regulation, and it is not proposed to change this. Subsistence fisheries enjoy open access, which is the best approach with this fishery; it would be important not to undermine the poverty buffer through improper management or other governmental interventions. There is no indication that open access in this case has been leading to depletion of the resource.

lxxv. **Forestry** accounts for 2.5 percent of GDP presently. The output of the sub-sector is about 120,000 cubic meters per year. Experts put the potential at some 500,000 cubic meters. Major policy changes have recently been instituted. The logging fee was sharply raised, to the point that total fees rose from US\$ 0.5 million in 2002 to US\$2.3 million in 2003. A further doubling of fee levels is planned for 2005. Plausible

¹² Since there is closed season regulation in place, there is still no danger of resource depletion at current levels of effort.

¹³ See the main text for the data.

computations indicate that these resultant fee levels will approximate the scarcity rent. Another major reform is associated with the authorities' efforts to create greater value added locally. With the aim of encouraging local wood processing – as opposed to the export of uncut logs – the authorities imposed an export ban on high-quality uncut wood in 2003.

lxxvi. A disadvantage with the current system of fees (“volume license fee”) is that it differentiates by wood type, which is appropriate, but not by locality. This gives undue incentives to harvest wood near populous areas, and discourages harvesting in distant areas. This is an inefficient arrangement, causing under-use in remote areas where there are no ecological problems, and threatening deforestation in areas of easy access.

lxxvii. In the medium term, a more effective way of bringing about increased competition would be a bidding license regime. This way, instead of the government's setting the fees per log, the loggers would themselves (in effect) propose fee levels, and because they will be doing this competitively, there would be a substantial increase of revenues – possibly as much as \$1.5 m.

lxxviii. The export ban could also be reexamined. It is not clear that this is the best way to accomplish the objective of enhancing local value added. For one thing, the existing plants are as yet unable to process all the wood available, and not surprisingly the total amount of wood produced has fallen. In addition, there is a loss of potential revenue, if only because the ban is not effectively policed. Most importantly, the link between the export ban and the potential investors is weak and so this measure is unlikely to have the desired effect. More effective, and fiscally advantageous, would be a carefully graduated combination of time-bound tax and licensing advantages, a time-bound and light export tax, and infrastructure incentives.

lxxix. The forestry sector is also important as a contributor to the livelihood of tens of thousands of rural dwellers. For this reason, the present arrangement of issuing simple licenses over the counter for 500 cubic meters of cutting annually should be maintained.

Growth and poverty outlook

lxxx. What of Mozambique's growth performance in the future? A general equilibrium model suggests an average long-term growth rate of 7 percent, from which should be subtracted 1 percent per year owing to HIV-AIDS (see paragraph *xxvii*, page *xvi*) and another 1 percent per year to take account of meteorological risk, arriving at a **long-term growth rate of 5 percent**. This is better than the region's 3.4 percent – appropriately due to Mozambique's superior natural resources. It is poorer than Mozambique's recent past growth of 8 percent. It would be hazardous, however, to assume a “business as usual” rate of 8 percent, because

- such “growth spurts” rarely extend more than a few years,
- Mozambique faces meteorological and other risk,
- the agricultural catch-up is now exhausted and the sector is growing at a lesser rate than it did before,
- most of the “easy” growth-enhancing reforms have been done, e.g. telecoms liberalization. This leaves the more challenging institutional reforms such as judicial reform, and

- aid will fall as a share of GDP.

lxxxii. With a vigorous reform agenda, on the other hand, it may be possible to attain growth rates of 7-8 percent in the medium to long term. A “virtuous cycle” could be set in motion, as the authorities pursue institutional upgrading with what might be termed “second-generation reforms”. So as to convince the skeptic that this is possible, four examples of far-reaching – and sometimes painful – institutional change are cited:

- Reforms in *air transport* in 2001 led to competitive new entry of a domestic operator, and to increased tourism using charters.
- The liberalization of *telecommunications* in 2001 permitted a vast increase: from 85,000 land lines and 51,000 cellphones, to 700,000 cellphones by 2004, with better service and the lowest prices in the region.
- Adoption of a transparent and non-discretionary *Mining Cadastre*, together with a new pro-investment mining law, resulted in a sharp increase in applications for mining titles, from 110 in 2001 to 180 in 2004, and the time taken to obtain a license fell from 120 days in 1999 to 50 days in 2003. The groundwork has been laid for long-term growth in the sector.
- As noted above (paragraph *lx*, page xxiii), the “delegated management” of urban water led to important improvements in coverage and supply times.

These experiences could be repeated in other sectors, along the lines suggested in the “Challenges” above.

lxxxiii. Simulations using the “growth regression” literature suggest that Mozambique could enhance its growth performance by improving its business climate to East Asian levels. Gains of up to 1 percentage point per annum could be made by avoiding banking crises, or by improving governance, or by reducing government nonproductive spending. Bigger gains of up to 3 percentage points per annum could be secured by – in time – improving infrastructure, or by raising access to secondary education.

lxxxiiii. Provided the country’s growth momentum is retained, and provided inequality does not increase much, poverty rates will continue to fall. We assume GDP growth of 5 percent annually.¹⁴ Then from 54 percent in 2002/3, the **poverty headcount may fall as far as 40 percent by 2007**. And there is a possibility of accomplishing the Millennium Development Goal of halving the 1990 poverty rate by 2015. (If, on the other hand, inequality increases sharply as it has in most fast-growing countries, then poverty will fall less slowly.)

Summary of recommendations

lxxxv. The full set of recommendations are given in the main text. Here, for the sake of clarity, the key recommendations are highlighted.

- The first and most important is *macroeconomic management*:
- *Macroeconomic stability*. Without low inflation and fiscal control, none of the structural reforms will succeed in maintaining good growth rates and reducing poverty. Given the Government’s plans to expand poverty-related spending, the

¹⁴ Growth rates are higher for 2003-2004, and also for the short-term projection period 2005-2006. *Thereafter* the long-term expected growth rate of 5 percent kicks in.

only way that crippling deficits can be avoided is through raising revenues by broadening the tax base and creating an independent tax agency.

- *Public finance management* needs dramatic upgrading because Mozambique is among the poorer performers in Africa and without substantial improvement, donor largesse which has supported the country's growth will be jeopardized. The SISTAFE should be implemented thoroughly, "off-budgets" brought on budget, and budget execution figures reported meaningfully.
- In the area of private sector development: *electricity* reliability should be improved, and access to the network increased at a faster rate, through restructuring of EdM.
- In the area of natural resources: *water access* for rural people should be greatly expanded by reallocating funding from sectors of lesser priority.

lxxv. Two further recommendations emerged from the analysis.

- It is essential that the Government persist with its strategy for combating **HIV/AIDS**. Mozambique is one of Africa's hardest hit countries, with a prevalence rate of 16.2 percent. The cost to the economy is of the order of 1 percentage point of GDP per capita each year.
- Growth in **agriculture** has started to plateau out after the post-conflict "bounce-back". There will be a need to move to productivity enhancing methods. These will likely include improved farmer-relevant research, broader dissemination of drought-resistant varieties, the encouragement of outgrower arrangements, the exploration of new models for access to financial markets by smallholders, facilitating investment by medium- and large-scale farming, and upgrading rural infrastructure.

SUMÁRIO EXECUTIVO

Introdução

lxxxvi. Moçambique conheceu um período de recuperação dramática da destruição provocada pela guerra civil. Desde 1992, a infra-estrutura foi melhorada e está agora a aproximar-se dos níveis antes da guerra e os rendimentos têm estado a registar um aumento considerável. O índice de pobreza reduziu de 69 por cento, em 1996/7, para 54 por cento, em 2002/3. Entre 1996 e 2003, a economia registou um crescimento médio anual de 8 por cento. Este sucesso pode ser atribuído à abordagem faseada mas determinada do Governo de estabilização e reformas estruturais, bem como à assistência concessional (metade das despesas do Governo), uma extraordinária recuperação agrícola, expansão das exportações agrícolas e uma rápida expansão do turismo, da construção e de certos subsectores de manufactura. Um outro factor também significativo foi o êxito das autoridades na atracção de “megaprojectos” nas áreas de fundição de alumínio, gás natural, e mineração de titânio, o que levou a que as exportações fossem triplicadas num espaço de três anos.

lxxxvii. Outro factor que contribuiu para este sucesso foi o facto do país ter conseguido alcançar a reconciliação, pondo fim à guerra civil e gerindo os conflitos potenciais desde então. Moçambique acaba de realizar as suas terceiras eleições gerais e presidenciais.

lxxxviii. No entanto, o país continua pobre (com rendimento per capita de 240 dólares); a infra-estrutura é inadequada, as necessidades em termos de educação e saúde ainda não foram satisfeitas e os índices de pobreza continuam elevados. Muitas das reformas de “primeira geração” associadas com a liberalização de mercado já foram implementadas. O país enfrenta agora a possibilidade de maiores estrangimentos macroeconómicos, a necessidade de melhorias institucionais substanciais de modo a tornar o crescimento sustentável, uma necessidade crescente de uma melhor priorização e gestão das despesas públicas, com vista a erradicar a pobreza absoluta, e grandes investimentos em infra-estrutura para promover o crescimento e ter um maior impacto na redução da pobreza.

lxxxix. **Objectivo e estrutura do Memorando Económico do País.** O presente Memorando analisou o binómio crescimento – pobreza, usando uma grande variedade de fontes de dados, incluindo o recentemente concluído levantamento familiar nacional (2002/3). Procurou compreender as fontes de crescimento no passado recente, avaliar as perspectivas de crescimento na próxima década, examinar as prováveis implicações na pobreza e delinear as políticas que será necessário introduzir para promover um maior crescimento e lograr a redução da pobreza. A razão deste foco neste momento prende-se com o facto do Governo estar a planificar o desenvolvimento do seu segundo Plano de Acção para a Redução da Pobreza Absoluta (PARPA) e sentiu-se que um enfoque maior no crescimento e pobreza contribuiria de forma substancial a este processo.

xc. Além disso – em consequência da cobertura superficial de que o assunto foi objecto em outros trabalhos do sector, produzidos ou não pelo Banco – o Memorando Económico do País também analisa a relevância da gestão dos recursos naturais aos objectivos relacionados com crescimento e pobreza. Foi constatado que os recursos naturais assumiam uma grande importância tanto no crescimento como na redução da pobreza. Assim, espera-se que futuramente as questões relativas aos recursos naturais

sejam totalmente integradas no debate das políticas nacionais.

xcii. Depois do início da preparação do Memorando do País, o Governo fez um pedido adicional, que este incluísse um capítulo sobre o desenvolvimento do sector privado. Este aspecto não constituía parte do plano inicial, pois, muita pesquisa valiosa já tinha sido realizada sobre esta questão importante (conforme é documentado na página 47). Assim ficou acordado que a contribuição do Memorando não envolveria a introdução de novos desenvolvimentos na área do sector privado, mas sim produziria uma síntese e priorização exequíveis das diferentes recomendações que resultam destes esforços.

xciii. O presente Sumário Executivo agrega os argumentos nas seguintes secções:

- Trajectória do crescimento e pobreza
- Desafios ao crescimento e à redução da pobreza: *desenvolvimento do sector privado*
- Desafios ao crescimento e à redução de pobreza: *recursos naturais*
- Previsão do crescimento e situação de pobreza

Trajectória do crescimento e pobreza

xciv. Moçambique tem presentemente uma população estimada de 19 milhões de habitantes e as previsões apontam para um crescimento anual de 2.4 por cento durante o período 2005-2010. Dado que as taxas de dependência estão a baixar, a dinâmica demográfica não é um factor preponderante nas tendências da pobreza; com efeito, a dinâmica demográfica tem contribuído para o aumento dos rendimentos per capita e para o declínio nos índices de pobreza. Espera-se que, até 2010, a população urbana activa registe um crescimento de 4 por cento, sublinhando a necessidade de uma via de crescimento que privilegie a criação de oportunidades de geração de emprego.

xcv. **Como foi conseguido o crescimento de 8 por cento?** As condições para um crescimento sadio foram conseguidas graças a um ambiente macro estável, avanços na liberalização dos sectores-chave (por exemplo, telecomunicações, transporte aéreo) e progressos na liberalização do comércio interno e externo. Além disso, ocorreram vários factores extraordinários, incluindo a ajuda concessional substancial. Estes factores são discutidos nos parágrafos que se seguem.

xci. Relativamente ao ambiente macro, a inflação baixou de mais de 60 por cento para níveis de um dígito nos finais da década de noventa e, não obstante o resvalamento que se seguiu à crise da banca em 2000-2002, espera-se que no futuro permaneça nos níveis de um dígito. Os gastos do governo aumentaram de forma significativa (24 por cento do PIB, em 1997, para 30 por cento, em 2002, baixando posteriormente para 24 por cento em 2004), mas contraiu poucos empréstimos do sistema bancário, pois, os gastos foram financiados através do aumento da ajuda concessional (e de um aumento moderado das receitas). Desde 2001, o Governo prossegue uma orientação fiscal e monetária guiada pelo Plano de Acção de Redução da Pobreza Absoluta (PARPA), que releva o papel-chave da estabilidade macro, prevê um aumento progressivo das receitas e restringe a tomada de empréstimos do sistema bancário.

xcvi. Relativamente à liberalização, a intervenção do Estado na economia agrária foi quase suprimida em meados da década de noventa. As telecomunicações têm sido liberalizadas de forma significativa a partir de 2001 e os aparelhos de telefonia móvel aumentaram de 51.000, em 2001, para 700.000 em 2004. O tráfego aéreo foi liberalizado

em 2002 e 2004 viu o primeiro novo concorrente a operar nas rotas domésticas bem como os primeiros vôos turísticos.

xcvii. Quanto ao comércio, durante a década de noventa, as tarifas de importação foram gradualmente reduzidas até atingir uma tarifa média de 9 por cento, uma das mais baixas em África. Prevê-se que, até 2006, a taxa tarifária mais alta se situe na ordem dos 20 por cento. A gestão da alfândega foi subcontratada durante a década de noventa e a eficiência da colecta tributária melhorada. As exportações têm registado um forte desempenho, crescendo a uma taxa anual de 22 por cento (em termos de USD), bem acima da média das exportações mundiais (6 por cento), tornando Moçambique num dos poucos países africanos cuja fatia mundial em termos de exportações aumentou. Contudo, a maior parte da expansão das exportações foi graças aos megaprojectos; tendo as exportações tradicionais registado um crescimento de apenas 2,3 por cento.

xcviii. Além disso, Moçambique beneficiou de três factores excepcionais:

- *A agricultura*, que é a base de subsistência de 80 por cento da população, registou um crescimento de 6,8 por cento por ano entre 1992 e 1997, que abrandou para 4,6 por cento anuais entre 1997 e 2003 (incluindo o impacto das inundações de 2000). Os principais contribuintes são os cereais (milho), açúcar e tabaco. Uma parte do crescimento registado entre 1992 e 2003 foi devido à expansão de área (2,4 por cento) e ao aumento da força de trabalho, e o resto foi devida a melhorias dos rendimentos. O crescimento em certas regiões como Tete foi mais forte devido ao comércio, por exemplo, o comércio transfronteiriço de milho e de outros produtos com o Malawi. Este factor é classificado como “excepcional” porque uma parte substancial do crescimento registado foi devida à “recuperação” depois da guerra. É uma recuperação em dois sentidos – parte do crescimento agrícola verificou-se em forma de rendimento na produção de culturas, que tinha declinado acentuadamente durante o período socialista e de guerra, recuperando rapidamente aos seus níveis iniciais durante a década de noventa. Num outro sentido, durante a década de noventa, a área cultivada aumentou aos níveis conseguidos antes da guerra, com o retorno dos refugiados de guerra aos seus campos agrícolas. Além disso, os *rendimentos não agrícolas* (microempresas, salários e remessas de valores) foram notáveis nas três províncias mais meridionais que dependem das ligações com a cidade de Maputo.
- Moçambique é um dos maiores recipientes da *ajuda concessional* em África (cerca de 12-15 por cento do PIB, representando metade dos gastos do Governo). A ajuda contribuiu significativamente aos esforços do Governo na consecução dos seus objectivos de melhorar o acesso e a qualidade dos serviços – a julgar pelas melhoras na educação, saúde e vias de acesso – e na relativa melhoria do nível de responsabilidade fiduciária. (A excepção é o HIV/SIDA que continua propagar-se). As abordagens de modelação demonstram que a ajuda respondeu por uma parte substancial do extraordinário crescimento registado em Moçambique.
- Um outro factor é o fenómeno de *megaprojectos*. Atraídos pelos benefícios fiscais e pelos recursos naturais, vários grandes investidores vieram a Moçambique depois de 1997, começando com a fundição de alumínio da

MOZAL. Em 2002, os megaprojectos representavam 7 por cento do PIB. A sua contribuição anual ao crescimento do PIB ascendeu a 1,6 por cento. Espera-se que represente 10-11 por cento do PIB até ao fim da década. Os megaprojectos ajudaram “a colocar Moçambique no mapa” e provavelmente também estimularão investimento fora de *megaprojectos*. Todas estas realizações foram positivas em grande ou menor medida e nenhuns efeitos negativos foram observados. Daí que se pode dizer que há, pelo menos, indicações *prima facie* de que a política de benefícios fiscais foi bem sucedida.

xcix. Todos os factores descritos acima indicam que o crescimento foi sustentado por uma base alargada. Além da agricultura, algumas partes do sector formal privado também registaram um crescimento substancial – manufactura, transportes, comunicações, serviços, extracção mineira – onde as taxas médias de crescimento (em termos reais) durante o período 1995-2003 tiveram uma variação anual entre 5 por cento e 15 por cento. Em parte devido ao restabelecimento dos mercados tradicionais da região tais como turismo, hotelaria e restauração. Alguns constituíram novos investimentos, a maior parte dos quais dos países vizinhos. Este foi um crescimento sustentado por uma base menos alargada e, portanto, estas taxas são prováveis de não registar nenhuma alta significativa no futuro. O número de pessoas activas no sector informal urbano registou um rápido crescimento a uma taxa de 7-8 por cento, impulsionado pela migração rural-urbana e um rápido crescimento da população em idade activa.

c. **Como é que o índice de pobreza baixou?** Usando a linha de pobreza do Governo, o índice de pobreza baixou dramaticamente, de 69 por cento em 1996/7 para 54 por cento em 2002/3. A queda foi mais rápida nas zonas rurais (de 71 para 55 por cento) do que nas zonas urbanas (de 62 para 52 por cento). A pobreza continua sendo na essência um fenómeno rural, pois, a maior parte da população é rural.

ci. A pobreza também pode ser avaliada com base nos bens, acesso aos serviços e nos resultados sociais. Nestas áreas também registaram-se melhorias. As taxas de propriedade de aparelhos de rádio e de bicicletas subiram. O acesso a água salubre aumentou de 24 por cento para 37 por cento. Em 1996/7, 8 por cento de todos os adultos tinham concluído o ensino primário do segundo ciclo (EP2); tendo aumentado para 11 por cento em 2002/3. O indicador-chave de saúde é a taxa da mortalidade infantil, que baixou de 149 em 1995 para 101 em 2003, um dos mais rápidos declínios jamais observados em África.

cii. De um modo geral, o consumo, determinado com base em pesquisas juntos das famílias, aumentou a uma taxa média anual de 4,6 por cento. Além disso, o consumo aumentou em todo o espectro de rendimentos. Por exemplo, o consumo dos 20 por cento da camada de população mais pobre aumentou em 23 por cento entre 1996/7 e 2002/3, ou seja, um crescimento anual de 3,5 por cento.

ciii. Quanto às regiões, o índice de pobreza diminuiu em todas as províncias com a excepção de Cabo Delgado e da província de Maputo. Estas constatações anómalas podem, contudo, ser descartadas, sendo o caso de Cabo Delgado devido a uma amostragem deficiente durante a pesquisa familiar; enquanto que na província de Maputo foi devido ao facto da comida consumida na área ser mais cara, sendo de uma qualidade

mais alta.¹⁵ Se fosse possível normalizar a qualidade alimentar, a taxa de pobreza na província de Maputo poderia muito bem ter *baixado* durante o período compreendido entre 1996/7 e 2002/3.

civ. Vários factores de política relevantes podem ser identificados como tendo contribuído consideravelmente para a redução da pobreza entre 1996/7 e 2002/3:

- Do ponto de vista sectorial, o factor dominante na explicação do desempenho do país na redução da pobreza é o bom desempenho das famílias camponesas. Isto por causa da vasta extensão do sector agrícola em relação a outros sectores de emprego.
- O aumento das taxas no sector de educação contribuiu para a redução da pobreza. Isto porque os níveis da educação aumentaram, e porque o impacto da educação nos salários (e no consumo) é considerável. O impacto de um ano adicional de escolaridade sobre o salário está na ordem de 3 por cento na agricultura nas zonas rurais e entre 5 por cento e 15 por cento em actividades não agrícolas nas zonas rurais, e também nas zonas urbanas; e o impacto aumenta ao nível de ES2 e superior.

cv. **Relação entre o crescimento e a redução da pobreza.** Como é que o processo de crescimento contribuiu para a redução da pobreza no período entre 1996 e 2003? Primeiro, e mais importante, deve-se observar que enquanto o PIB cresceu em 8 por cento no período 1992-2003, o consumo privado determinado pelas contas nacionais cresceu a uma taxa mais modesta de 2-4 por cento, dependendo do período de tempo específico.¹⁶ (Sendo a disparidade devida ao aumento das taxas de investimento e ao aumento acentuado das exportações associadas com os megaprojectos.) Foi o crescimento deste consumo que levou à redução que se observa no índice de pobreza.

cvi. Em segundo lugar, importa observar que o crescimento foi “pró-pobres”. Para os propósitos do Memorando Económico do País, o crescimento que favoreça às camadas pobres é definido como sendo a taxa média de crescimento do consumo das pessoas abaixo da linha de pobreza. Esta “taxa de crescimento pró-pobre” é fortemente positiva (3,9 por cento por ano). Também não devemos esquecer que nenhuma região ou ocupação importante foi ignorada no processo de crescimento.

cvi. A relação específica entre o crescimento e a redução da pobreza podem agora ser enumeradas. Conforme indicado acima, o crescimento da produção agrícola, devido em parte à expansão da área e em parte à melhoria da produtividade, teve um impacto directo na redução da pobreza nas zonas rurais (e em algumas zonas urbanas). Os empreendimentos não agrícolas nas zonas rurais também tiveram um impacto directo na redução da pobreza, em particular, nas três províncias mais meridionais com ligações mais estreitas com o mercado. O aumento no consumo observado a todos os níveis é suportado pelo aumento dos rendimentos. Os rendimentos de emprego¹⁷ aumentaram consideravelmente entre 1996/7 e 2002/3: os rendimentos médios de emprego da família

¹⁵ Vide o texto principal para mais análise destes dados.

¹⁶ Estas cifras são inferiores em relação aos resultados do levantamento do agregado familiar de 1996/7 e 2002/3. Isto não implica necessariamente que qualquer delas esteja errada. Vide a discussão na nota de rodapé 45, página 14.

¹⁷ “Os rendimentos de emprego” aqui referem-se ao somatório dos rendimentos de emprego nos sectores formal e informal. A proporção exacta das duas não é conhecida. Vide a nota de rodapé 4.

foram de Mt 5.500/dia, em 1996, aumentando para Mt 15.000 em 2002/3.¹⁸

cviii. À medida que a economia crescia, as mudanças estruturais ocorriam de acordo com as previsões. O valor acrescentado registou um crescimento mais rápido na área de serviços e, conseqüentemente, o crescimento do emprego foi mais rápido nesta área. O valor acrescentado registou um crescimento mais lento na agricultura e, conseqüentemente, o crescimento do emprego na agricultura foi mais reduzido e as pessoas transferiram-se das zonas rurais para as urbanas.

cix. Durante este período, os gastos do Governo – com o apoio dos doadores – concentraram-se nas prioridades do PARPA, ou seja, educação, saúde, vias de acesso, água e agricultura. Cada uma destas áreas de despesas, directa ou indirectamente, contribuiu para a redução da pobreza:

- O aumento dos gastos na educação elevaram a taxa (bruta) das matrículas no ensino primário do primeiro ciclo de 56 por cento em 1995 para 110 por cento em 2003. A taxa de conclusão no EP1 aumentou de quase 20 por cento em 1990 para 40 por cento em 2003. O número de adultos que concluíram o ensino primário aumentou de 8 por cento em 1996/7 para 11 por cento em 2002/3. O aumento nos níveis de escolaridade melhorou o nível de rendimentos no mercado de trabalho e elevou a produtividade dos operadores do sector informal, atraindo maiores rendimentos nos empreendimentos rurais não agrícolas.
- Os gastos na saúde aumentaram o acesso às instalações e cuidados de saúde (por exemplo, maior cobertura de vacinações) e, assim, contribuiu *directamente* para a redução da pobreza. Além disso, a situação de saúde melhorada das pessoas levou a melhorias na sua produtividade, o que terá presumivelmente contribuído *indirectamente* para a redução da pobreza, pois, os adultos activos têm agora maiores probabilidades de ter acesso a assistência médica quando necessário e a taxa total de fertilidade registou um declínio em consequência da queda na taxa de mortalidade infantil libertando, assim, mais mulheres para o mercado de trabalho. No entanto, os esforços com vista a conter a epidemia do HIV/SIDA ainda não tiveram sucesso (vide o parágrafo *cxi*, página xxxv abaixo).
- Com os gastos na reabilitação e manutenção de estradas, entre 1992 e 2003, as vias que se encontram agora em boas ou razoáveis condições aumentaram de 10 por cento para 70 por cento da rede classificada e o número de vias intransitáveis reduziu de 50 por cento para apenas 5 por cento. Tendo, assim, um impacto directo na pobreza, através da geração de emprego na reabilitação e manutenção das vias e também indirecto, através do acesso a transporte mais barato, margens mais baixas, maior comércio, melhores preços para os produtores agrícolas e preços de bens mais baixos para o consumidor nas zonas recônditas.
- Os gastos nos recursos hídricos aumentaram o acesso à água de uma fonte melhorada de 12 por cento para 27 por cento nas zonas rurais e de 54

¹⁸ Estas cifras são constantes 2002 Mt. Problemas de definição afectaram a determinação dos rendimentos do sector informal e, daí, também os rendimentos totais. Por isso, aqui enfatizamos: (a) o consumo, e (b) o rendimento de emprego.

por cento para 64 por cento nas zonas urbanas, entre 1996/7 e 2002/3.¹⁹ Isto terá provavelmente reduzido o índice de doenças de transmissão hídrica (por exemplo, diarreia e cólera).

cx. Em duas áreas, a relação entre o crescimento e a redução da pobreza não foi tão forte como se esperava:

- O sector formal gerou poucas oportunidades de emprego. A elasticidade do crescimento do emprego no sector formal foi de 0,1,²⁰ uma cifra baixa quando comparada com outros países. Um factor subjacente a este fenómeno poderá ser a legislação laboral restritiva que faz com que a expansão do emprego não seja uma opção atractiva. (Vide comentários adicionais sobre a lei do trabalho na página 40).
- Os megaprojectos contribuíram significativamente na adição de valor, mas até ao momento têm tido pouco (embora crescente) impacto na geração de postos de emprego ou nas actividades de negócio locais via ligações inversas. Calcula-se que em 2010, os megaprojectos responderão por cerca de 2 por cento do emprego no sector privado e espera-se que no futuro as ligações inversas venham aumentar. A principal contribuição dos megaprojectos na redução da pobreza é através das suas contribuições fiscais, que se espera aumentem 3 ou 4 por cento das receitas do Governo em 2010. Isto reforça ainda mais a ideia de que as despesas do Governo têm que ser feitas da forma mais eficiente possível de modo a fazer uso apropriado destas receitas incrementadas.

cxi. Finalmente, há uma área de resultados relevantes à pobreza em que nem o crescimento nem esforços do Governo puderam (ainda) abrandar a sua deterioração: **HIV/SIDA**. A prevalência da doença aumentou de 12 por cento em 2002 (Arndt, 2003) para 16,2 por cento em 2004. O impacto da epidemia provavelmente vai se tornar mais sério na próxima década. Em 2010, a esperança de vida ao nascimento baixará de 43 para 36 anos, ao invés de aumentar para 50 anos. Os custos macroeconómicos e sociais são enormes. A abordagem de modelação indica que a propagação da SIDA reduz anualmente o crescimento per capita do PIB em 1 por cento, por causa do crescimento lento da produtividade, reduzida acumulação de capital humano e reduzida acumulação física, para não falar do dramático fardo social da doença.

cxii. O Governo está a envidar esforços para dar resposta a este desafio. Já foi desenvolvida uma estratégia nacional de HIV/SIDA e foi estabelecido um secretariado nacional de HIV/SIDA. Os planos de mitigação desta doença estão a ser implementados nos principais ministérios. Estas acções têm merecido todo o apoio dos doadores. Todavia, o nível de implementação tem sido baixo – tendo a execução do plano sido implementada em apenas 70 por cento em 2004 e apenas USD 5 milhões dos fundos do projecto de HIV/SIDA financiado pelo Banco Mundial foram gastos nos dois primeiros anos. Há uma necessidade urgente de se melhorar a formação e a gestão.

¹⁹ As cifras são baseadas nos levantamentos do agregado familiar. Vide a discussão no parágrafo 270 (p. 80) e nota de rodapé 128 (p. 80) sobre o acesso a água de fontes melhoradas.

²⁰ Este refere-se a empresas não afectadas pela estruturação e privatização das empresas estatais em meados da década de noventa. Vide a discussão no parágrafo 120 (p. 40), e a nota de rodapé 85, e Benito-Spinetto and Moll (2005) para mais pormenores.

Desafios para o crescimento sustentado e para a redução da pobreza

cxiii. Moçambique parece estar bem posicionado para experimentar um período longo de crescimento per capita sustentado e também para alcançar algumas dos principais Objectivos de Desenvolvimento do Milénio, como a redução do índice de pobreza em metade até 2015. Todavia, os desafios com que o país se confronta são inúmeros. Existe, no entanto, a possibilidade de com um progresso acelerado em certas reformas-chave, a taxa de crescimento poder atingir níveis elevados de entre 7 e 8 por cento a longo prazo, acelerando assim a redução da pobreza. Os prováveis cenários de crescimento futuro – e os cenários correspondentes de pobreza – são discutidos abaixo (xxvi); porém, antes de se estimar a taxa global de crescimento importa analisar os factores que influenciarão os modelos de crescimento no futuro e considerar o papel do Governo na abordagem das ameaças a um crescimento sustentado, bem como o seu papel no aproveitamento de novas oportunidades de crescimento. As secções que se seguem exploram estes aspectos.

cxiv. Os desafios que enfrentam os dirigentes moçambicanos podem ser divididos em três categorias: *gestão macroeconómica, desenvolvimento do sector privado e recursos naturais.*

Desafios ao crescimento e redução da pobreza: gestão macroeconómica

cxv. Foi mencionado anteriormente que o bom desempenho macroeconómico de Moçambique constitui um dos pilares dos seus índices de crescimento extraordinários durante a última década. No entanto, ainda prevalecem riscos em duas áreas relacionadas: estabilidade macroeconómica e gestão das finanças públicas. Sem melhorias nestas áreas, as elevadas taxas de crescimento do país serão comprometidas.

cxvi. Estabilidade macroeconómica. Actualmente, é do conhecimento geral que a estabilidade e previsibilidade macroeconómicas são o principal sustentáculo da redução de pobreza e do crescimento, compreendendo a *estabilidade dos preços* e o *controlo fiscal*. Os mais desfavorecidos são os que sentem o impacto imediato da subida da inflação, pois, esta actua como um imposto regressivo. A médio prazo, são também os pobres os mais afectados, pois, os investidores são afugentados e as oportunidades de crescimento e de geração de postos de emprego entram em declínio.

cxvii. Não obstante o crescimento e progresso do país na frente macroeconómica, existe ainda o perigo da instabilidade dos preços. A reorganização do sistema bancário em meados da década de noventa, juntamente com o aperto monetário, resultou na inflação de um único dígito até 1999. Porém, houve duas fases de inflação provocada pela política monetária branda, uma com início em 2000 que resultou numa inflação de 17 por cento em 2002, e outra com início em 2003/4 que resultou numa inflação na ordem de 17 por cento no princípio de 2004, baixando posteriormente para 8 por cento em Janeiro de 2005. Nestes casos, a política monetária teve de ser restringida através de um aumento nas necessidades de reservas, aumentando a taxa bancária e/ou acelerando a venda das reservas em divisas ao público.

cxviii. Comparado com os padrões dos países menos desenvolvidos, Moçambique manteve uma boa disciplina fiscal na medida em que somente em alguns casos recorreu a empréstimos do sistema bancário para compensar o défice fiscal.²¹ O stock da dívida

²¹ Uma excepção notável a este desempenho positivo ocorreu em 2001-2 quando dois bancos tiveram que ser socorridos. O país está ainda a suportar os custos de “diferimentos ineficientes” que levaram à crise

interna pública é de cerca de 4 por cento do PIB.

cxix. O problema actual do lado fiscal é que o desempenho das receitas abrandou durante 2004 e necessita de melhorar porque as necessidades de gastos do Governo na educação, saúde e infra-estrutura provavelmente continuarão a aumentar, pelo menos, a par e passo com a população. Além disso, existe a probabilidade da ajuda como uma percentagem do PIB vir a baixar do seu actual nível elevado de 15 por cento. O plano do PARPA visava aumentar as receitas para 15,4 por cento do PIB em 2005; em 2004 tinha conseguido somente 12 por cento. Daí o imperativo de se aumentar as receitas internas do país de modo a que o país possa apoiar os seus programas de redução da pobreza e, enfim, reduzir a dependência de ajuda.

cxx. A dívida externa pública foi consideravelmente reduzida através de duas operações HIPC. Associado às excelentes perspectivas do país em termos de exportações, prevê-se que o valor actual líquido do serviço da dívida estrangeira dividido pelas exportações venha a baixar de 84 por cento registado em 2004 para 50 por cento em 2020. Os valores de 125-150 por cento são considerados no contexto do HIPC para denotar um problema de dívida pendente. Daí que de acordo com este padrão, Moçambique está livre de dívida externa pendente que possa abrandar o crescimento.

cxxi. O sistema cambial de Moçambique assenta numa flutuação dirigida. A taxa de câmbio efectiva depreciou ligeiramente desde a década de noventa. Embora os pagamentos no âmbito da ajuda financeira tenham totalizado 12-19 por cento do PIB, isso não causou nenhuma apreciação significativa da moeda. Um modelo de equilíbrio geral desenvolvido para testar isso indica que o aumento na produtividade gerado pelos fundos da ajuda (por exemplo, estradas, educação) compensou a pressão para o aumento de preços de bens não comercializáveis (“non-tradables”), evitando desse modo que o país seja exposto ao efeito pernicioso da “dutch disease” nas exportações. O ponto central é que a taxa de câmbio deve continuar a ser receptiva às tendências do mercado.

cxixii. **Gestão das finanças públicas.** A responsabilidade fiduciária de Moçambique pode na melhor das hipóteses ser descrito como débil, embora o Governo esteja a tomar medidas com vista a melhorá-la. As áreas mais fracas são a contabilidade, auditoria e contratos públicos. Esta é por si só uma questão de preocupação. Também será vital para o crescimento a próxima década, porque:

- a melhoria da eficiência nos gastos é necessária para efectivar uma melhor provisão de serviços que, por sua vez, é necessária para impulsionar o crescimento, em particular, a infra-estrutura, a educação e a saúde. Constatou-se que o custo das obras públicas é significativamente mais elevado em Moçambique (20-30 por cento) do que nos restantes países da região;
- as despesas totais não podem mais expandir ao ritmo anterior. É provável que as despesas globais se situem em 24-25 por cento do PIB. Por isso, haverá necessidade de, no futuro, se introduzir melhorias na eficiência;
- o financiamento dos doadores contribuiu para o crescimento e para a redução da pobreza e sem melhorias constantes na gestão das finanças

bancária, pois, as obrigações não foram readquiridas e a emissão de novas obrigações é um factor contribuinte às elevadas taxas de juros.

públicas partes dos fundos dos doadores poderá estar em risco. Isto é especialmente importante porque Moçambique recebe mais ajuda do que muitos outros países. A justificação para tal generosidade consiste no facto da ajuda estar a ser bem usada – conforme evidenciado pelas elevadas taxas de crescimento e melhorias significativas nos indicadores sociais. No entanto, se esta situação se alterar negativamente, a justificação especial de Moçambique vai deixar de ser e o seu cadastro fiduciário bastante débil pode bem resultar na redução da ajuda para os níveis normais.

cxiii. O Governo empreendeu um programa sequenciado de reformas, que começa com uma nova lei de gestão financeira em 2001 e regulamentos acompanhantes em 2002, que estabelecem a base tanto para os procedimentos contabilísticos modernos como para a reforma dos contratos públicos. O sistema de gestão financeiro electrónico SISTAFE está a ser implementada numa fase piloto em dois ministérios em 2005. Depois será alargado aos outros ministérios sectoriais em 2006. Então seguir-se-á o melhoramento dos classificadores (programa, funcional, regional) de modo a fornecer os detalhes suficientes para permitir a análise dos impactos da pobreza. Concomitantemente, os regulamentos e as instituições que regem os contratos públicos estão a ser revistos com vista a promover a concorrência e a transparência.

cxiv. Uma outra tarefa importante é a coordenação da implementação do SISTAFE com a reforma do sector público e, em especial, permitir a concordância entre o quadro de funcionários mantido pelo Ministério da Administração Estatal e a folha de pagamentos do Ministério de Finanças. Assim será possível eliminar os pagamentos a funcionários que efectivamente não existem: o exame das despesas públicas do Governo no sector de educação em 2003 concluiu que no ensino primário não houve uma prestação de contas adequada de cerca de 20 por cento dos funcionários.²²

Desafios ao crescimento e redução da pobreza: desenvolvimento do sector privado

cxv. Aqui referimo-nos à agenda há muito pendente de reformas visando a promoção da iniciativa do sector privado na actividade empresarial e remoção das barreiras ao investimento de firmas nacionais e estrangeiras. Pouca matéria nesta secção é distintamente nova. A contribuição do Memorando Económico do País na área de desenvolvimento do sector privado tem sido a concepção a priorização viável de tarefas – legislativa, regulatória, administrativa – para facilitar o investimento. Esta priorização encontra-se de forma resumida concisa na página 68). Nos parágrafos que se seguem, são discutidas algumas das principais intervenções:

- facilitação do comércio
- reforma e investimento no sector de energia
- acesso financeiro.

cxvi. **Facilitação do comércio.** A rápida expansão das exportações foi uma importante fonte do crescimento durante os últimos 10 anos em Moçambique. Desde o princípio da década de noventa, as exportações estão a expandir a uma taxa (10 por cento) substancialmente mais alto do que as exportações mundiais (6 por cento). Moçambique é um dos poucos países em África que conseguiu aumentar a sua fatia das exportações mundiais. Esta rápida expansão das exportações foi conduzida pela iniciativa privada,

²² Vide a discussão sobre o emprego no sector da educação em World Bank (2003b).

tanto nacional como estrangeira.

cxvii. À semelhança de outros países, para Moçambique, uma estratégia de crescimento conduzida pelo sector privado baseada nas exportações tem o maior potencial a longo prazo para sustentar uma elevada taxa de crescimento à luz das condições existentes: o mercado interno é limitado e detém um poder de compra relativamente baixo. Além disso, dado que a taxa das poupanças nacionais não é suficientemente alta para gerar um crescimento adequado para ter um impacto significativo na pobreza, deve-se colocar ênfase na atracção do investimento directo estrangeiro.

cxviii. Entre as razões do sucesso de Moçambique relativamente às exportações é a persistência na reforma. Moçambique liberalizou significativamente as suas importações. A média ponderada comercial dos direitos de importação é de 9 por cento. O Governo pretende reduzir a taxa máxima para 20 por cento em 2005. Moçambique está empenhado numa nova liberalização no âmbito do Protocolo sobre Trocas Comerciais da SADC e pretende negociar uma nova redução de tarifas no contexto do Acordo de Parceria Económica (APE) com a União Europeia (UE).

cxvix. Muitos desafios prevalecem. Foi observado acima que a maior parte do crescimento das exportações foi devido aos megaprojectos e que as exportações "tradicionais" cresceram a ritmo lento. Embora a produção de alumínio, gás, titânio e electricidade continuará a ser a principal fonte de crescimento das exportações, o principal desafio ao alargamento da base de crescimento do valor acrescentado para alcançar os objectivos do alívio da pobreza é a remoção das barreiras para permitir uma maior contribuição das pequenas e médias empresas.

cxvxx. Muito há ainda por se fazer com vista a melhorar os serviços de apoio às exportações de modo a eliminar o viés anti-exportação inerente ao sistema dos direitos de importação. As prioridades são: extensão dos incentivos à exportação às pequenas empresas, a aceleração do reembolso do imposto sobre o valor acrescentado (IVA), melhoramento do acesso das empresas ao sistema financeiro e melhoramento dos padrões e da capacidade de satisfação das medidas sanitárias e fitossanitárias, em particular, do mercado da UE. Considerando que as condições macroeconómicas e fiscais estão a melhorar e o regime das taxas de câmbio é de um modo geral adequado, os principais constrangimentos relativos à promoção de um crescimento conduzido pelas exportações têm a ver com as "questões internas":

- o sistema de infra-estrutura débil (incluindo electricidade e estradas), que ainda necessita de investimentos avultados e melhoramento das políticas, e
- o difícil clima de investimento (por exemplo, o desembaraço lento das importações, procedimentos de tributação complexos, processo lento de arranque dos negócios, um sistema judicial que não funciona, custos elevados de transporte e alto risco de empréstimos).

cxvxxi. **Reforma e investimento no sector de energia.** Uma área requerendo uma forte orientação política e investimento substancial é a de energia. Cerca de 64 por cento das empresas da indústria de manufactura acham que a electricidade representa o mais sério problema em termos de infra-estrutura. Reportam haver cerca de 17,5 interrupções mensais no fornecimento de energia. O acesso à electricidade aumentou de 4 por cento

em 1996/7 para 7 por cento²³ em 2002/3 (240.000 famílias), mas a maior parte das novas ligações ocorreram no quintil das famílias mais abastadas, cujo acesso aumentou de 11 por cento para 18 por cento. Em todo o caso, o ritmo de novas ligações – no ritmo histórico de 8.000 por ano²⁴ – é só ligeiramente mais alto do que o da população, pelo que a baixa taxa de electrificação poderá vir a estagnar. No contexto actual, 80 por cento das famílias mais pobres não terão acesso a electricidade por muitas décadas. Esta futura estagnação no acesso à electricidade contrasta negativamente com as melhorias previstas nas áreas das telecomunicações, água, estradas e outros aspectos relacionados com infra-estrutura.

xxxii. É necessária uma abordagem integrada e coordenada, combinada com medidas de política, reestruturação e aumento de investimento. A curto prazo,

- Deve-se melhorar o desempenho financeiro e operacional da Electricidade de Moçambique (EDM) e reduzir as perdas de energia de 20 por cento para 8-10 por cento.
- Os serviços ao consumidor devem ser bastante melhorados, por exemplo, através de uma maior expansão dos serviços pré-pagos, melhorando dessa forma a colecta de receitas.
- Deve-se aumentar o investimento de modo a intensificar as ligações onde a espinha dorsal das linhas de abastecimento já exista. A rede deve ser reabilitada e reforçada.

A médio prazo,

- As reformas institucionais e legais devem visar o estabelecimento de um ambiente favorável conducente ao desenvolvimento do sector, com capacidade regulatória adequada.

xxxiii. Melhoria do acesso e do custo de financiamento. A grande maioria das empresas em Moçambique indica que a falta de acesso ao financiamento e o seu custo elevado constituem um grande problema ao seu crescimento. As taxas de juros são mais elevadas quando comparadas com países no mesmo nível de desenvolvimento. Isto é em parte porque os “spreads” das taxas de juros são elevados (19 pontos percentuais), e por causa de elevadas perdas dos empréstimos e dos elevados custos administrativos. Só 29 por cento das empresas têm acesso a empréstimos bancários, inferior aos níveis em outros países no mesmo patamar de desenvolvimento (por exemplo, a Eritrea com 45 por cento das empresas). As pequenas empresas enfrentam barreiras ainda maiores. E nos poucos casos em que as pequenas empresas superam as barreiras, elas enfrentam exigências colaterais estritas, a uma média de 141 por cento do montante de crédito.

xxxiv. Por isso, são indicadas várias reformas. A supervisão bancária deve ser reforçada ainda mais, harmonizando a classificação dos empréstimos com a prática internacional e desenvolvendo as competências centrais dos funcionários responsáveis pela supervisão. É necessário estabelecer um tribunal comercial que lidará com os maiores casos. Simultaneamente, mais juizes devem ser formados na resolução de diferendos comerciais e os procedimentos judiciais devem ser simplificados a fim de minimizar a complexidade

²³ Vide Fox *et al.* (2005), Table 5.

²⁴ Vide de Barros (2005), parágrafo 52. Entre 1996 e 2000 (4 anos), havia 31.000 novas ligações.

processual. O âmbito e fiabilidade do registo de crédito administrado pelo Banco de Moçambique devem ser alargados. Para desenvolver o mercado de capitais, que é muito pequeno, o primeiro objectivo deve ser o de desenvolver ainda mais o mercado de títulos públicos e, desse modo, providenciar um ponto de referência baseado no mercado para a emissão de títulos privados.

cxix. Finalmente, o melhoramento do acesso ao financiamento pelas microempresas também contribuiria para a minimização do constrangimento imposto pelo elevado custo do capital em Moçambique. Embora a indústria de microfinanças tenha crescido, o seu alcance ainda é pequeno, com maior concentração em Maputo. É necessário eliminar os nós de estrangulamento, incluindo as restrições à tomada de depósitos. A legislação actual na preparação deve permitir que instituições de finanças micro tomem depósitos. Aconselha-se que se recorra aos serviços especializados de peritos para a finalização da lei sobre micro-finanças.

Desafios ao crescimento e à redução da pobreza: recursos naturais

cxix. Esta secção é de facto uma continuação da anterior sobre eficiência. Um elemento importante no melhoramento da eficiência da economia na promoção de investimento e criação de oportunidades para a geração de rendimentos pelos pobres é o *melhoramento do quadro regulatório dos recursos naturais*, especificamente, em relação à água, extracção mineira, terra rural, pescas e florestas. Estas áreas são priorizadas e agrupadas nesta secção porque (a) colectivamente, são vitais para o crescimento económico, (b) são essenciais para a redução da pobreza (especialmente, a água) e para a subsistência (florestas, pescas, terra rural), (c) o seu abuso resultaria na insustentabilidade ambiental e ameaçaria o processo de crescimento no seu todo, e (d) alguns destes elementos servem de excelentes estudos de caso em termos de eficiência, governação e perspectivas de investimento.

cxix. Em Moçambique, certas características são comuns a estas cinco áreas dos recursos naturais:

- relutância em usar procedimentos transparentes para a atribuição dos direitos de uso e aproveitamento dos recursos
- colecta deficiente das rendas de aluguer decorrentes ao Estado,

e, o conseqüente uso ineficiente dos recursos, menos crescimento económico, receitas decorrentes ao governo mais baixas e, conseqüentemente, menos redução da pobreza. Assim, conforme será explicado nos parágrafos que se seguem, as melhorias na gestão dos recursos naturais são essenciais para a redução da pobreza e para o crescimento.

cxix. **Água.** De todos os recursos naturais, o que requer maior atenção dos decisores políticos é a água: a irrigação de pequena escala, a mitigação das cheias e da seca e o abastecimento de água salubre têm um papel a jogar na redução da pobreza.

cxix. **Água de irrigação:** Cerca de um décimo dos 36 milhões de hectares de terra arável no país é apropriado para irrigação. A terra cultivada representa 4,3 milhões de hectares, dos quais só 0,9 por cento são efectivamente irrigados – a mais pequena proporção em toda a região.

cxl. No contexto de capacidade de armazenamento de água limitada e de falta de recursos financeiros, o melhor uso dos recursos públicos requereria a concentração dos esforços no melhoramento das condições dos pequenos agricultores. Seria mais viável

concentrar as atenções nos sistemas de pequena escala, de baixo custo e não em grandes projectos. O fomento da irrigação de pequena escala também levaria a um aumento na produção de culturas de elevado valor e o que, por sua vez, aumentaria os rendimentos das famílias mais pobres. Embora exista um potencial significativo para a expansão da irrigação comercial, tais iniciativas devem ser promovidas pelo sector privado. O papel do Governo é desenvolver um quadro legal, institucional e regulatório, bem como apoiar o desenvolvimento da infra-estrutura de armazenamento de água ligado a projectos de uso múltiplo (energia / água / transporte / gestão de seca).

cxli. Infra-estrutura de recursos hídricos. A capacidade útil das barragens em Moçambique representa somente 5 por cento da média anual do escoamento das águas dos rios do país, com excepção do Zambeze. Assim, o país precisa de desenvolver a sua infra-estrutura para o armazenamento de uma quantidade maior do escoamento.

cxlii. O Governo pode fazer progressos significativos na redução da vulnerabilidade a secas tratando das questões relacionadas com o abastecimento da água rural, de água de irrigação para os pequenos agricultores e para a operação e manutenção dos sistemas existentes. Isto pode ser complementado por medidas visando melhorar a base de dados das informações, incluindo a negociação com os países ribeirinhos a montante (para assegurar que a operação de reservatórios a montante não contribua para o agravamento das inundações no território moçambicano) e sistemas de aviso prévio que serviriam tanto para a gestão de secas como de cheias. Deve-se construir pequenas represas e reservatórios em todo o país nas áreas mais propensas a seca. Há uma necessidade urgente de se construir duas grandes represas para o abastecimento de água a Maputo e Beira e para irrigação no Baixo Pungué. São também necessárias represas de média dimensão para assegurar o abastecimento de água a várias cidades pequenas. Para a atenuação de cheias, é necessário construir reservatórios de armazenamento, condicionada à revisão das normas de operação de todas as novas e antigas represas e ajustá-las de forma a equilibrar as necessidades em termos de atenuação das cheias e outros usos.

cxliii. Abastecimento de água. A falta de água salubre é um factor nocivo à boa saúde e à fraca produtividade do trabalho. Aqui exploramos o trabalho realizado no âmbito da Revisão das Despesas Públicas de 2003 – informados pela dramática constatação de que o nível de acesso à água salubre na zona rural era mais baixo do que se tinha sido pensado (27 por cento e não 40 por cento) e que o de acesso à água salubre na zona urbana era mais alto do que se tinha sido pensado (64 por cento e não 38 por cento).²⁵ Há necessidade de muitas melhorias, em particular, nas zonas rurais.

cxliv. As iniciativas recentes no abastecimento de água urbana provaram ser um sucesso. Desde 2002, a cobertura das ligações domésticas nas zonas urbanas era somente de 25 por cento e a água estava disponível só 11 horas por dia. O governo optou por um modelo de “gestão delegada”, introduzido através de um concurso público em cinco municípios. O sector privado iniciou as operações em 2002. Num período de dois anos tornou-se evidente que a decisão tomada tinha sido correcta: a cobertura melhorou de 25 para 30 por cento e a provisão aumentou para 15 horas e o sector da água urbana atraiu

²⁵ Cifras baseadas nos levantamentos do agregado familiar. O acesso a água de fontes melhoradas nas zonas rurais aumentou de 12 por cento em 1996/7 para 27 por cento em 2002/3 e nas zonas urbanas de 56 por cento em 1996/7 para 64 por cento em 2002/3. Vide a discussão no parágrafo 270 (p. 80) e a nota de rodapé 128 (p. 80) sobre o acesso a água de fontes melhoradas.

novos investimentos.

cxlv. Concomitantemente, o governo adoptou a “abordagem orientada pela procura” nas zonas rurais, que requeria que as comunidades fizessem uma solicitação específica para a instalação de uma fonte de água, pagando uma taxa e assumindo a responsabilidade pela sua manutenção. Mesmo assim, normalmente cerca de 30 por cento dos poços deixam de funcionar por falta de peças sobressalentes.

cxlvi. Apesar do progresso evidente registado, continuar com o actual mecanismo é insuficiente. Embora os níveis de acesso à educação e saúde básicas em Moçambique seja igual ou superior à média africana, o nível de acesso à água de uma fonte melhorada nas zonas rurais é de 27 por cento, inferior à média africana de 46.5 por cento.

cxlvii. Uma estratégia integrada de *rápida expansão do acesso a água salubre* deve ter em conta dois princípios: custo-eficácia e a “abordagem orientada pela procura” – pois, sem esta última, a proporção de poços não operacionais rapidamente ultrapassará os actuais 30 por cento. Além disso, devem ser concebidos mecanismos para assegurar a disponibilidade de peças sobressalentes e a capacitação da comunidade. Esta gigantesca expansão pode ser alcançada através de

- *Aumento de recursos e de pessoal no acesso à água rural.* Isto poderá implicar a reafecção de sectores menos prioritários. Embora a abordagem continue a ser orientada pela procura, o principal constrangimento presentemente não são as comunidades que satisfazem os critérios mas sim o pessoal, capacitação e financiamento para permitir a implementação.
- *Investigar os factores que são a base dos elevados custos de perfuração.* Em especial, deve-se avaliar se a subcontratação de mais trabalho através de concursos públicos, reduzindo assim o trabalho realizado pelas empresas estatais não reduziria os custos.
- *Expandir o acesso a fontanárias comunais nas zonas urbanas.* Isto pode ser feito a um custo mais baixo do que a reticulação das casa. Um possível modelo de gestão é a subcontratação a particulares (como está a ser feito em algumas cidades moçambicanas como Angoche).
- *Licenciar operadores privados de quiosques de água* como acontece em outras cidades africanas.
- *Aumentar a partilha dos custos nas zonas urbanas.* Há necessidade de se aumentar as taxas em todas as cidades, em particular, nas cidades mais pequenas, a níveis que conseguem cobrir os custos operacionais e de manutenção e uma proporção do serviço de dívida.

cxlviii. **A extracção mineira** está a tornar-se um recurso natural cada vez mais valioso. A recente aquisição por uma firma mineira brasileira dos direitos de exploração na região carbonífera de Moatize é uma indicação das excelentes perspectivas que existem neste sector. Presentemente, o sector representa apenas menos de meio por cento do PIB e contribui receitas fiscais no valor de de \$3-5 milhões (além do valor pago pela companhia de prospecção de carvão). O número de empresas duplicou desde 2001. Isto é em parte devido a mudanças legislativas progressivas e à introdução dum Cadastro de Exploração Mineira inovador e transparente, que efectivamente constitui um exemplo das reformas institucionais que é necessário introduzir (por exemplo, terra, pescas, florestas). A actividade mineira artesanal e de pequena escala proporciona uma ocupação, em tempo

integral ou parcial, a 100.000 pessoas espalhadas por todo o país.

cxlix. Contudo, a produção mineira do país encontra-se ainda muito abaixo da dos países com potencial geológico semelhante. As despesas anuais de exploração podiam ser aumentadas do seu nível actual de US\$15-25 para US\$ 50-100 milhões por ano.

cl. Para conseguir isto, o sistema de tributação mineira deve ser harmonizado com os planos fiscais do resto da economia. O sistema actual não é competitivo em termos globais. Ele consiste do Imposto sobre o rendimento das pessoas colectivas – IRPC, mais os royalties e o imposto de licença e o *Código dos Benefícios Fiscais*. O sistema não é atractivo aos investidores privados porque os royalties podem constituir um grande encargo às empresas durante os períodos de declínio nos mercados de minérios e porque o IRPC não permite a acumulação e os transporta das despesas durante as fases de desenvolvimento e de exploração. O sistema de tributação mineira deve ser revisto, a fim de torná-lo globalmente competitivo e assegurar uma proporção justa ao Governo.

cli. Foram introduzidas na administração da *terra rural* através de uma nova lei (1997) e regulamento (1999) de terra: os mecanismos costumeiros de posse foram aprovados oficialmente e é necessário um processo de consulta antes da emissão de novas concessões. Desta forma a segurança de posse dos pequenos agricultores foi redobrada.

clii. Estas reformas são ainda insuficientes. Visto que a terra não pode ser adquirida, a única barreira à obtenção dos direitos é meramente burocrática; não surpreende, portanto, que a concessão de grandes áreas de terra seja ainda feita a um custo praticamente nulo. A falta de um mercado oficial de terra cria oportunidades para as pessoas derivarem benefícios financeiros e é ineficiente porque os direitos à terra não gravitarão naturalmente aos seus utentes mais produtivos. Quando os melhoramentos nas zonas rurais são alienados, a concessão de terra correspondente não é transferida automaticamente com a venda.²⁶ É necessário obter uma nova autorização antes que a concessão possa ser transferida, o que cria novas oportunidades para as pessoas tirarem benefícios financeiros do processo. Uma outra dificuldade tem a ver com o facto das concessões estarem sujeitas à interferência burocrática, devido à necessidade de um plano de uso e aproveitamento de terra. Esta interferência cria uma percepção justificada da parte de potenciais agricultores de grande escala de que a posse de terra é demasiado insegura para merecer grandes investimentos.

cliii. Podem ser introduzidas melhorias significativas na eficiência através das medidas seguintes

- reforma dos regulamentos para permitir a transferência *automática* dos direitos de uso e aproveitamento de terra juntamente com a venda de edifícios e de melhoramentos, sem nenhuma interferência burocrática.
- aumentar substancialmente o imposto de terra para concessionários de média e grande dimensão, desse modo, obrigando os proprietários de terras que não estejam a fazer uso produtivo da sua terra para transferi-la para outros que fariam. Os concessionários podem ser compensados sendo aliviados da exigência de planos de uso e aproveitamento. Isto promoveria a percepção de segurança na posse de terra e estimularia mais investimentos.

cliv. *As pescas* representam 1,5 por cento do PIB e 10-15 por cento das exportações; a

²⁶ Veja nota de rodapé 123 (página 74).

maior parte resultando da pesca industrial e semi-industrial de camarão. A pesca artesanal e de subsistência é também importante na medida em que proporciona emprego a cerca de 90.000 pessoas. Existem três grandes companhias industriais e cerca de 200 semi-industriais envolvidas na pesca de camarão. As taxas das licenças ascendem a USD 5 milhões anualmente, embora esta cifra esteja aquém dos rendimentos totais devido a razões que são elucidadas no corpo principal do texto abaixo. O Governo tem estado a prosseguir uma estratégia de promoção de participação local (dos nacionais) na pesca de camarão, através da Emopesca, empresa pertencente ao Estado, para formar empreendimentos conjuntos. Isto foi conseguido através da emissão de um número substancial das novas quotas para novos intervenientes sem, no entanto, reduzir a participação da frota industrial. Não surpreende, portanto, que todo o esforço pesqueiro tenha aumentado por um factor de três desde os finais da década de setenta, embora o pescado total tenha permanecido quase constante.²⁷

clv. Todavia, o procedimento de atribuição de novas licenças não foi transparente, com valores substanciais a serem transferidos sem nenhuma regulamentação clara ou critérios de distribuição. Em todo o caso, o mecanismo não teve o sucesso que se previa aquando da planificação inicial, na medida em que os operadores moçambicanos não têm conseguido desenvolver a sua quota e os operadores nacionais são Aida muito poucos.

clvi. A perda de receitas decorrentes da exploração deste recurso deve ser abordada. Isto pode ser conseguido através de um mecanismo dual. *O acesso internacional* podia ser melhor organizado através de um sistema de leilão. Isto aumentaria de forma considerável as receitas totais arrecadadas pelo Estado.²⁸ A razão da não adopção do método eficiente do “primeiro-melhor” do sistema de leilão em todo o sistema é que este provavelmente excluiria quase completamente os operadores nacionais. Daí que para o *acesso nacional*, seja necessário um conjunto claro de critérios publicamente disponíveis de atribuição de quotas, para assegurar a existência de sistemas previsíveis e justos para os utentes e também assegurar os benefícios sociais da exploração dos recursos naturais. Tal “apadrinhamento” deve ser eliminado por etapas dentro de um período predeterminado de, por exemplo, cinco anos.

clvii. A pesca artesanal e de subsistência constitui uma importante zona tampão para a pobreza. O desenvolvimento comunitário em geral foi iniciado como parte do desenvolvimento da pesca, com a assistência do Instituto de Desenvolvimento Pesqueiro de Pequena Escala. A pesca artesanal está sujeita à regulação e não se propõe que isso seja alterado. A pesca de subsistência é de livre acesso, que é a melhor abordagem para este tipo de actividade; é importante que zona tampão não da pobreza não seja comprometida pela gestão inadequada ou outras intervenções governamentais. Não existe nenhuma indicação de que o livre acesso neste caso leve ao depauperamento do recurso.

clviii. As *florestas* representam 2,5 por cento do PIB. A produção deste subsector é de cerca de 120.000 metros cúbicos por ano. Os peritos estimam o potencial em cerca de 500.000 metros cúbicos. Foram introduzidas recentemente importantes mudanças de política. A taxa de derrube de árvores foi aumentada significativamente, o que que fez

²⁷ Uma vez que foi imposto um período de defeso, não risco de depauperamento aos níveis actuais de exploração.

²⁸ Vide o texto principal que contém referência sobre os dados.

com que as receitas totais aumentassem de US\$ 0,5 milhões em 2002 para US\$2,3 milhões em 2003. Prevê-se um novo aumento de 100 por cento da taxa em 2005. Os cálculos plausíveis indicam que os níveis de taxas resultantes aproximar-se-ão das taxas de escassez. Uma outra reforma significativa tem a ver com os esforços das autoridades no sentido de se criar maior valor acrescentado localmente. Com o objectivo de estimular o processamento local de madeira – ao invés de exportação de toros não processados – as autoridades impuseram, em 2003, uma proibição na exportação de madeira de alta qualidade não processada.

clix. Uma desvantagem do actual sistema de taxas (“taxa de licença de volume”) é que estabelece a diferenciação com base no tipo de madeira, o que está correcto, mas não pela localidade. Isto dá incentiva indevidamente a exploração de madeira próximo das zonas populosas e desencoraja o corte em zonas distantes. Este mecanismo é, portanto, ineficiente, pois, causa a subutilização das áreas remotas onde não existe nenhum problema ecológico e provoca o desflorestamento das áreas de fácil acesso.

clx. A médio prazo, uma forma mais eficaz de estimular uma maior concorrência seria um regime de licenciamento com base em licitação. Deste modo, ao invés do Governo aplicar uma taxa unitária baseada no toro, seriam os próprios madeireiros que (efectivamente) estabeleceriam os níveis das taxas e porque fá-lo-iam de forma competitiva, haveria um aumento substancial de receitas – possivelmente até 1,5 milhões de dólares.

clxi. A proibição da exportação podia também ser reexaminada. Não está claro que esta seja a melhor forma de realizar o objectivo de promoção do acréscimo de valor local. Por um lado, as instalações fabris que actualmente existem não conseguem ainda processar toda a madeira disponível e não é surpreendentemente, portanto, que a quantidade total de madeira produzida tenha baixado. Além disso, há uma perda de receitas potenciais, se a proibição não for efectivamente policiada. Mais importante ainda, a relação entre a proibição da exportação e os investidores potenciais é débil e é, portanto, improvável que esta medida surta o efeito desejado. Seria mais eficaz e vantajoso em termos fiscais, se fosse introduzido um conjunto de medidas graduais e cautelosas em que se combinasse as vantagens de taxas fixas durante um período de tempo, taxas de exportação fixas durante um período de tempo e brandas e inventivos em termos de infra-estrutura.

clxii. O sector de florestas é também um importante contribuinte no sustento de dezenas de milhares de camponeses. Por essa razão, o actual sistema de emissão de simples licenças ao balcão para o corte 500 metros cúbicos de corte anuais deve ser mantido.

Previsões de crescimento e a pobreza

clxiii. Qual é o desempenho do crescimento de Moçambique no futuro? Um modelo de equilíbrio geral sugere uma taxa média de crescimento a longo prazo de 7 por cento, da qual se deve subtrair 1 por cento por ano devido ao HIV/SIDA e mais 1 por cento por ano para levar em conta o risco meteorológico, chegamos assim a **uma taxa de crescimento a longo prazo de 5 por cento**. Esta taxa é melhor que a da região situada em 3.4 por cento – e deve-se à superioridade de Moçambique em termos de recursos naturais. No entanto, esta taxa é inferior à do crescimento recente de 8 por cento verificado no país. Seria arriscado, contudo, assumir uma taxa de crescimento “como de costume” de 8 por cento, pelas seguintes razões:

- tal crescimento acelerado normalmente dura apenas alguns anos,
- Moçambique enfrenta o risco meteorológico e outros riscos,
- a recuperação agrícola já atingiu o seu nível máximo e o sector está a crescer a uma taxa mais baixa do que antes,
- a maior parte das reformas “fáceis” que estimulam o crescimento já foram introduzidas, por exemplo, a liberalização das telecomunicações. Isto deixa as reformas institucionais mais difíceis como a reforma judicial, e
- a ajuda externa diminuirá como uma proporção do PIB.

clxiv. Com uma agenda de reforma vigorosa, por outro lado, pode ser possível atingir taxas de crescimento de 7-8 por cento a médio e longo prazo. Podia-se iniciar um “ciclo virtuoso” à medida que as autoridades prosseguem com os melhoramentos institucionais com aquilo que pode ser denominado “reformas de segunda geração”. Para convencer os cépticos de que isto é possível, citamos quatro exemplos de mudanças institucionais de longo alcance – e às vezes dolorosas:

- As reformas no subsector dos *transportes aéreos* em 2001 levaram à entrada de um novo operador doméstico e ao aumento de viagens turísticas.
- A liberalização das *telecomunicações* em 2001 levaram a um grande aumento: de 85.000 linhas fixas e 51.000 telemóveis, para a 700.000 telemóveis em 2004, com um melhor serviço e os preços mais baixos da região.
- A adopção de um *Cadastro de Exploração Mineira* transparente e não discricionário, juntamente com uma nova lei de minas favorável ao investimento, resultou num aumento acentuado de requerimentos de títulos de exploração mineira, de 110 em 2001 para 180 em 2004, e o tempo para a obtenção de licença reduziu de 120 dias em 1999 para 50 dias em 2003. A base de sustentação para o crescimento do sector a longo prazo já foi estabelecida.
- Conforme observado acima, a “gestão delegada” da água urbana levou a melhorias importantes em termos de cobertura e período de abastecimento.

Estas experiências podem ser replicadas noutros sectores, ao longo das linhas sugeridas na secção dos “Desafios” acima.

clxv. As simulações feitas usando a literatura de “crescimento regressivo” sugerem que Moçambique pode melhorar o seu desempenho de crescimento melhorando o seu ambiente de negócios aos níveis da Ásia Oriental. Podem ser conseguidos ganhos de até 1 ponto percentual por ano evitando as crises bancárias, melhorando a governação ou reduzindo os gastos improdutivos do governo. Ganhos maiores de até 3 pontos percentuais por ano podem ser assegurados – com o tempo – através do melhoramento da infra-estrutura ou aumentando o acesso ao ensino secundário.

clxvi. Caso o ritmo de crescimento do país seja mantido e contanto que as desigualdades não aumentem de forma significativa, os índices de pobreza continuarão a baixar. Assumimos o crescimento do PIB de 5 por cento por ano.²⁹ Então, dos 54

²⁹ As taxas de crescimento são mais elevadas para 2003-2004 e também para o período de previsão de curto prazo 2005-2006. Depois disso o crescimento a longo prazo situar-se-á em torno dos 5 por cento.

porcentos registados em 2002/3, o **índice de pobreza poderá reduzir até 40 porcentos em 2007**. É possível que o nível de pobreza alcance o Objectivo de Desenvolvimento do Milénio que visa reduzi-la em metade entre 1990 e 2015. (Se, por outro lado, as desigualdades aumentarem de forma acentuada como na maioria dos países registando rápido crescimento, então o índice de pobreza baixará menos lentamente.)

Resumo das recomendações

clxvii. O conjunto das recomendações é apresentado no corpo principal do relatório. Iremos aqui, por questões de clareza, destacar as recomendações-chave.

- A primeira e mais importante é a *gestão macroeconómica*:
 - *Estabilidade macroeconómica.* Sem inflação baixa e controlo fiscal, nenhuma das reformas estruturais terá sucesso na manutenção de boas taxas de crescimento e redução da pobreza. Tomando em considerando os planos do Governo de aumentar os gastos relacionados com a pobreza, a única forma de se contornar o défice é aumentando as receitas persistindo com a reforma fiscal, alargando a base tributária e criando uma agência fiscal independente.
 - *A gestão das finanças públicas* deve ser melhorada porque Moçambique encontra-se entre os países com o mais fraco desempenho em África e sem melhorias substanciais, a dívida dos doadores que tem apoiado o crescimento do país será comprometida. O SISTAFE deve ser implementado na íntegra, os fundos extra-orçamentais incorporados no orçamento, as cifras de execução orçamental apresentadas de forma clara e escala salarial dos funcionários públicos descomprimida.
- Os esforços na área de eficiência dos negócios: A fiabilidade de *electricidade* deve ser melhorada e o acesso à rede aumentado um ritmo mais rápido, através da reestruturação da EDM.
- Na área dos recursos naturais: *O acesso a água* pelas populações rurais deve ser expandido realocando o financiamento dos sectores menos prioritários.

clxviii. Duas recomendações adicionais emergiram da análise.

- É essencial que o Governo prossiga com a sua estratégia de combate ao **HIV/SIDA**. Moçambique é um dos países mais afectados em África, com uma taxa de prevalência de 16,2 por cento. O custo à economia é na ordem de 1 ponto percentual do PIB per capita por ano.
- O crescimento na **agricultura** começou a abrandar depois do atingir o pico no pós-conflito. Haverá necessidade de se introduzir métodos de promoção da produtividade. Estes incluirão provavelmente pesquisa melhorada que seja relevante ao agricultor, uma maior disseminação de variedades resistentes à seca, o incentivo de mecanismos de subcontratação de produção, estimular a criação de associações de agricultores, exploração de novos modelos de acesso aos mercados financeiros pelos pequenos agricultores e facilitação de investimento pelos agricultores de média e grande escala.

CHAPTER 1. INTRODUCTION

The context: a dramatic post-conflict recovery

1. Mozambique has staged a dramatic recovery from the damage of the civil war. Since 1992, infrastructure has been improved and is now approaching its pre-war levels, and incomes have risen considerably. The poverty headcount fell from 69 percent in 1996/7 to 54 percent in 2002/3. On average the economy grew by 8 percent annually between 1996 and 2003. This accomplishment can be attributed to the Government's phased but determined approach to stabilization and structural reforms, as well as to concessional assistance (half of Government expenditures), a remarkable agricultural "catch-up", an expansion of agricultural exports, and fast expansion in tourism, construction, and certain manufacturing subsectors. Another factor was the authorities' success in attracting "megaprojects" in aluminium smelting, natural gas, and titanium mining, and a resulting tripling of exports in three years.
2. Another factor which was a precondition for all of the above is the fact that Mozambique was successful in bringing about reconciliation, ending the civil war, and in managing potential conflicts since that time. The country had its third general and presidential election at the end of 2004.
3. In the next three pages we embark on a brief description of the population and economy of Mozambique so as to put the evaluative discussions of the subsequent chapters in context. A "snapshot" is given of the country's population, of its still basically rural character, of its poverty and social indicators in relation to those of its neighbors. This serves as the backdrop for the discussion of the plan of the Memorandum on page 4.

A fast-growing population

4. Mozambique's population is 19 million. Its population density is one of the lowest world-wide with 22 inhabitants per square kilometer in 2000. Even by 2050, the population density will be still be low (Table 1).
5. The growth rate of population is expected to fall from 2.4 percent (for the period 2000-2004) to 2.3 percent in 2010.³⁰ The total fertility rate is expected to fall from 5.7 in 2000 to 5.1 in 2010, and to continue falling thereafter to 4.5 in 2020. Dependency rates are expected to fall from 90 percent in 2000 to 83 percent in 2010, as the working-age population grows more quickly than dependants. Poor households are larger than nonpoor households, but the differential is small (5.8 versus 4.5).

³⁰ Klasen and Woltermann (2004), using United Nations Population Division (2004); and World Bank population estimates report slightly lower growth numbers, as they claim to take HIV/AIDS fully into account.

Table 1. Demographic projections, 1990-2050

	Population ('000)	Pop. growth ^a	Population density ^d	TFR	Dependency rate ^e	Life expectancy (M) ^c	Life expectancy (F)
1990 ^f	14 151	2.0	17.7	6.2 ^b	92.5	42.1	44.8
2000	17 240	2.4	21.6	5.7	90.1	42.5	46.1
2005	19 420	2.4	24.3	5.4	86.2	45.2	49.0
2010	21 854	2.3	27.3	5.1	82.7	46.7	50.5
2015	24 518	2.3	30.7	4.8	81.2	48.7	52.7
2020	27 439	2.2	34.4	4.5	75.6	52.0	56.0

^{a,b} These refer to the annual growth rate in the 5-year interval between the row where they are given and the following row. These estimates may not fully take into account the impact of HIV/AIDS.

^c The life expectancy rates also refer to the annual life expectancy rates in the 5-year interval between the year of the row the numbers are entered and the subsequent one. Life expectancy is in years at birth.

^d The population density is persons per square km.

^e The dependency rate is the ratio of dependent persons (below 15 and above 64 years) to the working age population, times 100.

^f INE supplies only data for 1990-2000, without splitting into 1990-1995 and 1995-2000.

Source: INE web site, June 2005.

6. All these factors – barring the likely impact of HIV/AIDS – are mildly encouraging, suggesting that population growth in Mozambique does not constitute a serious risk for poverty and inequality. While large household size generates an elevated poverty risk, that risk has declined over time, particularly in rural areas (Klasen and Woltermann, 2004). Various econometric exercises confirm the hypothesis that population dynamics are not a major driver of changes in growth, per capita incomes, poverty, or inequality trends. Indeed demographic dynamics have helped support rising per capita incomes and falling poverty rather than hindering it.

An overwhelmingly rural country

7. Currently 73 percent³¹ of the population is rural, and with further migration to the cities, this is expected to fall to 71 by 2010. Rural-urban migration is expected to continue. Projections indicate that between 2005 and 2010 the urban working-age population will grow by possibly as much as 4.1 percent per annum³² – a rate substantially faster than that of the rural working age population. This underscores the need for a growth path with job creation, a point which will be raised in Chapter 3 (p. 38) in the discussion about labor markets, job creation and poverty.

8. Approximately 80 percent of the work force draw the bulk of their income from agriculture, forestry or fisheries. In accordance with economic theory, the share of the population involved in agriculture is falling. This structural change, along with others, is discussed in Chapter 3 (p. 39). GDP arising from agriculture and forestry is still the largest among the sectors, at about 20 percent. Given the weight of agriculture in the economy, it is not surprising that agriculture, despite generally slower growth rates than the “modern” sectors, made the second-largest contribution to GDP growth in the past decade, exceeded only by the manufacturing sector which included the so-called “mega-projects” (see p. 16). Therefore in Chapter 2 on growth, much of the discussion centers

³¹ Source: INE (2000). As of the 1997 census, 76.5 percent of the population was rural.

³² See further discussion about population and the labor force, in the background paper by Benito-Spinetto and Moll (2005).

on explaining the growth in agriculture hitherto and developing hypotheses about the likely drivers of agricultural growth in the future (see p. 17ff).

A poor country, but lower poverty and inequality than the Africa average

9. Despite the country's recent progress, Mozambique is still among sub-Saharan Africa's poorest countries. Gross national income per capita is \$250 (\$1,060 in PPP terms) compared with the Africa average of \$480 (\$1,750 in PPP terms). Consistent with its lower level of income, Mozambique has a slightly lower share of agriculture in GDP (19 percent versus 17 percent for sub-Saharan Africa). Also consistent with its lower income, Mozambique is less urbanized: 27 percent versus 36 percent for sub-Saharan Africa.

10. This said, it is striking that Mozambique has a smaller fraction of people living below \$1 per day: 29 percent, versus 46 percent for sub-Saharan Africa. This is because consumption (and by implication income) is distributed more evenly in Mozambique, which has a Gini of 0.40, compared to the sub-Saharan Africa Gini of 0.49.

11. In terms of social indicators – see Table 2 – Mozambique is close to the average of sub-Saharan African countries, but lags behind in literacy, water access and HIV/AIDS:

- infant mortality is 101 per 1,000, close to the Africa average of 103;
- life expectancy is 45 years, close to Africa's 46;
- HIV/AIDS prevalence is higher, at 16.2 percent, than the African mean of 7 percent. The implications for economic growth, and measures to combat the disease, are discussed in Chapter 6 (p. 105).
- gross primary school enrolment is over 100 percent, better than the Africa average of 87 percent. Literacy, at 45 percent compared with Africa's 65, reflects the serious educational backlog of the colonial and socialist periods;
- water access, at 37 percent, falls far short of Africa's 58 percent. This is mainly because rural water access is low, at 27 percent (Table 10, p. 26), behind Africa's 46.5 percent. Expanding rural water access is discussed in Chapter 5 on natural resources (p. 75).

Table 2. Economic and social indicators for Mozambique and sub-Saharan Africa

Indicator	Mozambique	Sub-Saharan Africa
Population (<i>millions</i>)	19.4	703
Population growth (<i>annual, percent</i>)	2.4 ^c	2.3
Gross National Income per capita (<i>Atlas method, US\$</i>)	250 ^o	480
Gross National Income (<i>PPP terms, US\$</i>)	1,060 ^k	1,750 ^k
Agriculture as percentage of GDP	19.4 ^j	17 ⁱ
Poverty (<i>% of population below US\$1/day in PPP terms</i>)	29 ^g	46.4 ^a
Gini index of inequality (%)	40.0 ^m	48.6 ^l
Urban population (<i>% of total population</i>)	27 ^b	36
Life expectancy at birth (<i>years</i>)	45 ^d	46
Infant mortality rate (<i>per 1,000 live births</i>)	101	103
Prevalence of HIV/AIDS (%)	16.2	7.2 ^h
Access to an improved water source (<i>% of population</i>)	37 ^e	58
of which: rural (<i>% of population</i>)	27 ^e	46.5 ^p
Literacy (<i>% of population aged 15+</i>)	45 ⁿ	65
Gross primary enrolment (<i>% of school-age population</i>)	110 ^f	87
Male	121 ^f	94
Female	100 ^f	80

Source: unless otherwise indicated, from World Bank, *Mozambique at a Glance*, in turn from the *Development Data Platform*, which is compiled from a variety of sources.

^a From *World Development Indicators* 2005, p. 67f. Data refer to the year 2001. This is the percentage of people living on less than \$1.08 a day at 1993 international prices (equivalent of \$1.00 at 1985 prices). ^b See source at footnote 31 (p. xxxiii). ^c Population growth in 2005: see source in Table 1, p. 2. ^d Life expectancy: see source in Table 1, p. 2. ^e Water: source is Fox *et al.* (2005), Table 5 (on access to services). ^f Primary gross enrolment: from World Bank (2005a, Table 3.3, p. 21), in turn from Ministry of Education, *EducStat* annual school survey, 2003. ^g Fox *et al.* (2005) report (p. 4) using IAF data that 29 percent of the population lived on less than US\$1 (PPP terms) per day in 2002/3. ^h HIV: *World Development Indicators* 2005, p. 118, Table 2.18. ⁱ Agriculture share of GDP: *World Development Indicators* 2005, p. 204. Data refer to 2003. ^j Agriculture share of GDP for Mozambique: see Table 6, p. 15. Data refer to 2003. ^k GNI, PPP: *World Development Indicators* 2005, p. 23f. Data refer to 2003. ^l Gini: *World Development Indicators* 2005, p. 74. Simple average. Median is 47.9. Data refer to various dates between 1997 and 2002. ^m Gini for Mozambique: from IAF 2002/3, see Table 18, p. 35. ⁿ From IAF 2002/3, from underlying computations for Fox *et al.* (2005); refers to population aged 18-65. ^o 2004. ^p Rural water: World Bank *World Development Indicators Database* (<http://devdata.worldbank.org/external/dgcomp.asp>), in turn from: World Health Organization and United Nations Children's Fund, *Global Water Supply and Sanitation Assessment 2000 Report*.

12. There are enormous challenges ahead. Mozambique's infrastructure is inadequate – especially rural water supply – and there are serious unmet education and health needs. Many of the “first-generation” reforms associated with market liberalization have already been implemented. The country now faces the prospect of tightening macroeconomic constraints, a need for substantial institutional improvement to make growth sustainable, and an increasing need for better prioritization and management of public expenditures to eliminate absolute poverty.

Objectives and structure of the Country Economic Memorandum

13. **Objective.** This Country Economic Memorandum (CEM) has examined the growth-poverty linkage, using a wide variety of data sources, including the recently completed national household survey (2002/3) and the *Demographic and Health Survey* (2003). It has sought to understand the sources of growth in the recent past, to evaluate the prospects for growth in the next decade, to examine the likely implications for poverty, and to outline the policies that will be needed to achieve further growth and poverty reduction. The findings and recommendations are presented in the following chapters:

- The growth record

- The poverty record (including linkages between growth and poverty)
- Challenges to growth and poverty reduction: private sector development
- Challenges to growth and poverty reduction: natural resources
- Growth and poverty outlook

14. **Structure.** This Country Economic Memorandum does not attempt to provide even coverage of all issues of economic policy. The previous CEM (World Bank, 2001d) provided a bird's eye view covering all major aspects of the economy. This CEM is focused on the *growth-poverty linkage*. There were two reasons for wishing to focus on this at this time. The first is that the Government was planning to develop its second Poverty Reduction Strategy Paper (termed PARPA in Mozambique) and it was felt that a substantial contribution in the area of growth and poverty might make a useful contribution to this. Second, the Government has just completed the preparation of the second national household survey (2002/3). Thus for the first time data were available to examine the trend of poverty. Hence it was considered important to seek to explain in detail what had happened to consumption, employment, and poverty, and explore the linkages with the growth process.

15. Hence the backbone of the CEM is first an examination of the factors that will help to sustain growth (Chapter 2) and engender further poverty reduction (Chapter 3) in the future. This approach implies certain specific limitations. The key sectors of importance for growth and poverty reduction in the future, particularly agriculture, mining and tourism, take pride of place. Another limitation is that the important subject of corruption in the public sector is not covered. In 2004 the Government carried out a survey of perceptions of corruption, with assistance from the World Bank, and undertook in 2005 to publish the results. A further limitation is that Chapter 3 on poverty has as its main subject the *impact of growth on poverty*. It is not intended to cover the vast subject *The impact of public policy on poverty*; since this would require a public expenditure review, it was decided to postpone this for future work.

16. In addition – on account of the light coverage the subject has received in other sector work, Bank-produced and otherwise – the CEM also examines the relevance of natural resource management to growth and poverty objectives (Chapter 5). It was found, in the event, that natural resources are of great importance for both growth and poverty reduction. Hence it is hoped that in the future the natural resource issues will be fully integrated with the national policy discussions.

17. After the preparation of the CEM had begun, the Government made an additional request, namely that it include a chapter on private sector development. This had not formed part of the original plan, because a great deal of valuable research had already gone into this important subject (as is documented in Chapter 4, p. 47). Hence it was agreed that the contribution of this Memorandum would not be to break new ground in the area of private sector development, but to arrive at a workable synthesis and prioritization of the many disparate recommendations arising from these efforts. Hence Chapter 4 is not the all-encompassing review of all private sector- and business-related policies found in many Country Economic Memoranda; instead it focuses on a small number of key administrative barriers to growth, and also presents a matrix with suggested prioritized actions.

18. Finally, while the CEM was being produced, four other papers in private sector development and agricultural policy were under way. To avoid duplication, it was decided to report only their main policy conclusions in the main text, and to add brief summaries in the form of boxes. These studies are: *Growth and competitiveness* (Box 1, p. 51), *Rural development strategy* (Box 2, p. 112), *Impact of extension services* (Box 3, p. 113) and *Contract farming and supply chain financing* (Box 4, p. 114).

CHAPTER 2. THE GROWTH RECORD

A. INTRODUCTION

19. This chapter surveys Mozambique's progress in creating and sustaining growth over the past decade. The key threads of the inquiry are to ask three questions:

- Was growth of an enclave nature or was it broad-based?
- Are the sources of growth observed in the past decade durable, that is, can the same mechanisms be relied on in the future? Was part of the growth we have seen due to a one-off, post-conflict boom?
- Did government efforts assist in the growth process?

20. The chapter starts with a brief review of the main data sources and the macroeconomic background including trade policy, fiscal policy and public financial management. It reviews the prospects for population growth. Then it examines the growth process from four different perspectives:

- the demand side
- the supply side (sectoral contributions)
- a Solow-Denison growth accounting exercise, and
- idiosyncratic contributors to growth covering, in particular, the influence of the mega-projects and of foreign aid.

Different methodologies are used in this examination and this may well constitute a strength of the analysis, given that there are certain common elements that emerge that serve to corroborate the key findings. A concluding section summarizes the main findings and attempts to answer the questions listed above.

B. GROWTH AND MACROECONOMIC FACTORS

21. *Mozambique's growth averaged a spectacular 8 percent from 1996 to 2003* (Table 3), driven by megaproject construction, investment from neighboring countries, buoyant donor support, and healthy agricultural growth.³³ The 2000 floods reduced growth to 1.5 percent but the economy recovered quickly, growing at 13 percent the following year.

³³ See also more detailed macroeconomic variables in Annex Table 1, p. 135.

Table 3. Basic macroeconomic indicators

	1997	1998	1999	2000	2001	2002	2003	2004
	<i>Percentage, unless otherwise stated</i>							
Real annual GDP growth rate	11.1	12.6	7.5	1.9	13.1	8.2	7.8	7.2
Nominal GDP (Mt trillions)	39.8	46.9	51.9	58.4	76.5	96.9	114	137
Nominal GDP (US\$ billions)	3.45	3.96	4.09	3.72	3.70	4.09	4.79	6.09
Inflation (period average)	6.4	0.6	2.9	12.7	9.0	16.8	13.4	12.6
Gross domestic savings / GDP	8.1	10.8	13.7	11.6	8.0	11.0	10.8	11.8
Investment / GDP	20.6	24.2	36.7	33.5	25.9	29.8	25.9	20.1
Government revenue / GDP	11.6	11.3	12.0	12.9	12.4	12.4	12.9	12.3
Govt. expenditure / GDP	23.9	21.6	24.7	26.6	32.1	30.0	26.5	23.7
Aid / GDP ^a	15.6	13.4	13.3	21.0	16.7	16.1	15.7	13.2
Interest rate (commercial lending rate)	..	24.4	19.6	19.0	22.7	26.7	24.7	22.0
Current account deficit/GDP (excl.grants)	-17.7	-18.9	-28.2	-27.2	-26.1	-23.1	-19.9	-13.8
Exchange rate (000 Mt / US\$)	11.5	11.9	12.7	15.7	20.7	23.7	23.8	22.6
NPV external debt/exports (percent)	709	549	212	177	110	92	102	84

Sources: Live Data Base, in turn from Mozambican authorities, IMF and World Bank staff estimates.
^a Aid includes grants and public sector borrowing.

22. There is no room for complacency. Over the medium term, high growth rates, in particular in the agricultural sector, could be put at risk by constraints to further improvements in productivity, such as land rights, transportation costs and volatile international prices, and in addition there is the certainty of periodic droughts and floods.

23. *Despite the progress made, there is still a danger of macroeconomic instability.* Reorganization of the banking system in the mid-1990s, together with tight money, resulted in single-digit inflation up to 1999. But there have been two distinct phases of inflation brought on by lax monetary policy, one starting in 2000 and resulting in inflation of 17 percent in 2002, and another in 2003/4 resulting in inflation of 15 percent in early 2004. In both instances, monetary policy had to be tightened by increasing reserve requirements and/or raising the bank rate. One of the costs of this macroeconomic uncertainty has been extremely high interest rates, e.g. prime rose to 35 percent at end-2002, though it has fallen since.³⁴ There are high costs for the small and medium-sized firm sector; fortunately during the period under review much of the growth was driven by large firms not dependent on Mozambican financial markets.

24. Mozambique's exchange system is a managed float. Commercial banks may buy and sell foreign exchange to individual customers on a fully negotiable basis. The Banco de Moçambique sets a daily rate, which is adjusted gradually in response to significant deviations relative to the average selling rate of banks at exchange bureaux. All restrictions on the making of payments and transfers for current account transactions³⁵ have been eliminated, with the exception of the need for prior approval for remittances of family living expenses over \$5,000 per month, which is granted by the central bank on a

³⁴ An allied problem is a persistent and large spread brought on by a lack of effective competition in the banking sector combined with large bad loan portfolios in two of the biggest banks.

³⁵ In IMF parlance, Mozambique is an Article XIV country (IMF, 2003a, Appendix I, p. 2.) Prior approval must be obtained from the central bank for payments of invisibles above US\$5,000 as well as for transfers of profit remittances abroad. The possibility of accepting the obligations under Article VIII is being studied.

case by case basis. In effect the latter restrictions is not binding because individuals may also purchase foreign exchange privately. Exporters may retain foreign exchange earnings in full and dispose of them at will.³⁶ An auction system for foreign exchange will be put in place in 2005.

25. The real effective exchange rate had a major appreciation-and-depreciation in the mid-1980s. Since 1992 it has fluctuated within a band of ± 16 percent (Figure 1), and the 2004 figure is almost exactly the same as that of 1992 (index = 54), which in turn is considerably depreciated compared with 1980 (index = 100). Even though aid payments have amounted to 12-19 percent of GDP since the 1990s, only in late 2004 did there emerge any appreciation of the currency, and this was short-lived as the nominal rate returned to its previous level in 2005. On the face of it there does not seem to be a “dutch disease” problem.

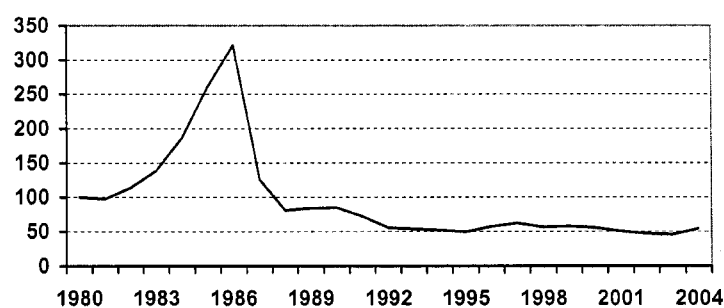


Figure 1. The real effective exchange rate (1980=100, - depr.)³⁷

Trade policy

26. *Mozambique has made important progress in trade policy.* The trade weighted average tariff is 9 percent (Yagci, 2004), one of the lowest in Africa. There are four non-zero bands. The top tariff rate has been steadily lowered, from rates approaching 100 percent in the early 1990s, down to 25 percent in 2003. Further reductions in tariffs will follow as the SADC trade protocol is implemented. The plan is to reduce the top tariff rate to 20 percent in 2006. Management of customs was contracted out during the 1990s, leading to increases in efficiency of collection which more than compensated for the decline in the tariff rates.³⁸

27. Mozambique’s export performance has been strong, growing at 22 percent annually (in US dollar terms) between 1996 and 2003, mainly owing to mega-projects. This expansion is substantially faster than that of world exports of about 6 percent. As a result, Mozambique is one of the rare countries in Africa whose share in world exports has risen. However, the “traditional” export base is still weak and poorly diversified (mainly agricultural), having grown at only 2.3 percent in the same period. (See Table 25 (p. 57) for detailed composition of trade data.)

³⁶ The export surrender requirement was abolished in 1997 (IMF, 2003b, Annex, p. 4).

³⁷ Source: IMF. A decrease (e.g. 100 in 1980 to 49 in 1995) denotes a depreciation.

³⁸ See further discussion of trade in Chapter 4 on private sector development, p. 46.

28. In a poor economy like Mozambique, the expansion of exports has to constitute a key avenue for growth, because local purchasing power is not sufficient to support strong growth rates. In addition, emphasis needs to be placed on attracting direct foreign investment because the national saving rate is low.

29. Market access is not a binding constraint on export growth at the present, as the country has access to the EU market under the Cotonou Agreement and the Everything-but-Arms Initiative, and to the US market under the Africa Growth and Opportunity Act. The country's access to the South African market is also relatively free. In the medium term, market access may be a binding constraint when the country reaches its full export potential. To avoid this, Mozambique needs to participate in the on-going mid-term review of the SADC Trade Protocol to improve the rules of origin, and also in the Economic Partnership Agreement with the EU which will replace the Cotonou Agreement.

30. "Behind-the-border" problems continue to be the chief barrier to the needed expansion of "traditional" exports. Business startup is still expensive and slow, and contracts are difficult to enforce through the legal system. Stimulating growth in exports will also require improvements in competitiveness by addressing labor rigidities, high transportation costs, and high lending risk. Further priorities are: the extension of export incentives to small companies, accelerating VAT reimbursement, setting up an export credit system, and improving standards and capacity to meet the sanitary and phytosanitary requirements, particularly for the EU market. Further detail on trade policy is given in Chapter 4 on private sector development, page 47.

Resource mobilization

31. *New tax laws have improved revenue performance, but much remains to be done.*³⁹ With a view to long-term fiscal sustainability, a value added tax was introduced in 1999 and is now the largest single taxation item. A large taxpayer unit was launched in 2001. A new income tax law was passed in 2002, rationalizing corporate and personal income taxes, reducing the corporate tax from 35 to 32 percent, and broadening the tax base. A new code of fiscal incentives was passed, establishing standard concessions and transparent rules for foreign investors. The plan of the PARPA was to raise revenue from 11 percent of GDP in 1998 to 15.4 percent of GDP by 2005; in the event, revenue rose to only 12 percent in 2004 (Table 3). It would have risen further had it not been for a slackening of the revenue effort in 2004, possibly associated with the elections in that year. A set of administrative measures were adopted in early 2005 which the Government is confident will enable the PARPA goals to be met with a delay: 15 percent by 2008.

32. *Deficits after grants were relatively low until 2000*, thanks to a prudent fiscal stance accompanied by substantial external assistance. Combined with a prudent monetary policy, especially in the period 1996 to 1998, and a program of structural reforms based on privatization, tax and customs reform and trade liberalization, this resulted in low inflation, high private investment and high growth rates. Since 1998 there has been a shift in resources in favor of health, education and agriculture, reflecting an

³⁹ For a thorough review of tax in Mozambique, see Coelho *et al.* (2001).

increasing anti-poverty focus. Education, health and agriculture increased their combined share in total budgetary allocations from 29 percent in 1998 to 39 percent in 2001, where their share has remained.

33. *However, Mozambique remains aid-dependent*, with deficits before grants rising from 11 percent of GDP in 1998 to 19 percent in 2002 (Table 3). Expenditures grew at 17 percent annually in real terms from 1997 to 2002, due to bank bailouts, an increase in the civil service wage bill of 46 percent in real terms between 1999 and 2002⁴⁰, and to higher social spending. These deficit levels have only been possible because of high levels of foreign grants. External assistance is likely to remain high in the short run, but in the long run Mozambique is unlikely to be able to further increase its share in total world aid; given that the latter is growing by about 2 percent annually, and the Mozambican economy is likely to grow at more like 5-7 percent annually, this would imply a gradual decrease of the ratio of aid to GDP from 15 percent currently to 11 percent by 2015. Hence it is appropriate that fiscal adjustment has become a priority of Government policy. It is also appropriate that further efforts be made to improve the prioritization and efficiency of expenditures.

34. *The macro framework envisages important changes on the revenue and spending sides.* Table 4 presents a feasible scenario, on the basis of reasonable assumptions of economic growth, revenue capability, and donor contributions (with grants averaging some US\$350 million annually). Note that here the intention is to look at the growth numbers that the authorities anticipate. Since these (obviously) do not incorporate meteorological or institutional risk, they are on the optimistic side, but this may not be inappropriate for the short to medium term. (See the less rosy longer-term projections Chapter 6, p. 103.) Revenue is programmed to reach 13 percent of GDP in 2005. In the pursuit of long-term fiscal sustainability, revenue should reach 16-17 percent by 2010. On the expenditure side, spending is programmed to fall, in line with the medium term perspective of the Government's *Action Plan for the Reduction of Absolute Poverty* (PARPA), from the very high level of 32 percent of GDP in 2002 to 26 percent in 2005 and 24 percent in 2010. This represents a considerable reduction in percentage terms but in real terms expenditures are still growing at 4 percent per year between 2002 and 2010. Hence it is not politically unrealistic.

⁴⁰ Thus the bill grew by 13 percent per year between 1999 and 2002, well in excess of GDP growth.

Table 4. Macro framework, 2003-2006

	2003	2004	2005	2006	2007
	<i>Actual</i>	<i>Est.</i>	<i>Projected</i>		
Output and prices					
Real GDP growth rate ^a	7.8	7.2	7.7	7.4	6.4
Inflation (period average)	13.4	12.6	8.0	7.3	6.5
Exchange rate (000 Mt/US\$)	23,782	22,581	..	..	..
Money <i>(as a percentage of GDP)</i>					
Money and quasi-money	28.3	24.9	24.5	24.3	24.3
Net foreign assets	12.7	17.5	15.2	13.8	13.5
Net domestic assets	9.5	6.7	9.1	11.2	12.4
Credit to the government	-3.1	-3.1	-0.6	0.8	2.1
Credit to the rest of the economy	12.6	9.8	9.7	10.3	10.2
Public Finance					
Total revenue	12.9	12.3	13.2	14.0	14.6
Total expenditure and net lending	26.5	23.7	25.6	24.4	24.5
Current	14.4	13.8	13.7	13.7	14.0
Capital and net lending	12.1	9.9	11.9	10.6	10.5
Overall balance before grants	-14.0	-11.7	-12.4	-10.2	-10.0
Primary balance after grants	-3.3	-3.4	-5.2	-3.5	-3.3
Public external debt					
NPV pub. external debt/exports (percent)	102	83.8	83.6	89.5	96
Sources: Mozambican authorities; World Bank and IMF staff estimates and projections.					

35. The public external debt, as was remarked above, was considerably reduced through the two HIPC operations. Combined with the country's excellent prospects for exports, the net present value of foreign debt service divided by exports is projected to fall from its current (2004) level of 102 percent to 74 percent by 2006 and to 50 percent by 2020. Mozambique is well clear of a growth-reducing debt overhang.

Public finance management

36. Mozambique's fiduciary accountability can at best be described as weak, although the Government is taking measures to improve it. The weakest areas are accounting, auditing and procurement. Mozambique scored 4 out of 16 by one assessment⁴¹ and 5 out of 30 by another – less than the sub-Saharan African average.⁴² This is a matter of concern in its own right. It will also be critical for growth in the next decade, because:

⁴¹ The HIPC AAP rating, viz. Highly Indebted Poor Countries initiative: Activity and Action Plan for expenditure reform (World Bank, 2003d). See footnote 42, p. 12, for the sort of questions asked.

⁴² The combined World Bank/EU/DfID assessment framework (Scanteam, 2004). 5 in 30 refers to the fact that there were five questions which scored "B", and none which scored "A", on a scale of "A" to "D", "A" being good and "D" being poor. The questions cover: fiscal deficit, composition of expenditures, revenue outturn, arrears, risk oversight, budget coverage, budget classification, identification of poverty expenditures, audits, medium term expenditure framework, parliamentary review, cash flow management, debt management, internal controls, payroll controls, procurement, timeliness of audits, and so on.

- improved spending efficiency is needed to achieve better service delivery, which in turn is needed to spur growth, particularly in infrastructure, education and health. It has been found that public works are substantially more expensive (20 to 30 percent higher) in Mozambique than in the region,⁴³ and so it is incumbent upon the authorities to ensure that the most efficient procurement practices are being followed;
- total expenditure can no longer expand at the rate it used to. Total expenditures are likely to remain at around 26 percent of GDP. Hence it will be essential to secure efficiency improvements in the future;
- donor funding has assisted growth and poverty reduction, and without steady improvement in public finance management some of the donor funding may be put at risk. This is especially important because Mozambique is receiving more aid than many other countries. The justification for such generosity is that the aid is being well used – as evidenced in high growth rates and big improvements in social indicators – but if any of these is let slip, Mozambique’s special justification will fall away and its rather weak fiduciary record may well result in its aid levels falling.

37. The Government has embarked on a program of reform in this area. It has followed the right sequencing, starting with a new financial management law in 2001 and accompanying regulations in 2002, which set the basis both for modern accounting procedures and for procurement reform. The electronic financial control system SISTAFE is being piloted in two ministries in 2005. Next will be the rollout to other sectoral ministries during 2006. It is expected that this will soon enable more accuracy in accounting and permit greater timeliness in auditing, thereby facilitating parliamentary oversight. Then should follow the improvement of the classifiers (program, functional, regional) so as to provide detail sufficient to permit analysis of poverty impacts. Budget comprehensiveness is another goal which will be facilitated by the SISTAFE rollout, though further work will be needed to get proper accounting of donor-funded spending.

38. In parallel, the regulations and institutions governing procurement are being revised so as to promote competition, transparency and value for money.

39. A further important task is to coordinate the SISTAFE implementation with the reform of public sector, and in particular to enable coincidence between the staff establishment held by the Ministério da Administração Estatal and the pay list of the Ministry of Finance. In so doing it will be necessary to eliminate supernumerary staff: the Government’s public expenditure review of education in 2003 concluded that as many as 20 percent of the staff in primary education were not properly accounted for.⁴⁴

⁴³ This has been found by Bank staff working with Government projects in the areas of rural borehole drilling, urban water contracts, road rehabilitation and school building. See World Bank (2003b).

⁴⁴ See the discussion on “ghost workers” in World Bank (2003b).

C. EXAMINING GROWTH FROM THE DEMAND SIDE

40. We now proceed to examine the growth record in a systematic way, from four different perspectives: the demand side; the supply side (sectoral contributions); a Solow-Denison growth accounting exercise; and idiosyncratic contributors to growth covering, in particular, the influence of the mega-projects and of foreign aid. In this section, then, we examine the demand side.

41. Table 5 presents the standard breakdown of the demand side of GDP. Important factors underlying the growth of GDP are the increase in investment (whose share in GDP rose from 27 percent to 32 percent) and the improvement on the external side, as the growth of exports far outstripped the growth of imports. The share of exports in GDP rose from 14 percent to 20 percent. It will be seen below (p. 23) that foreign investment associated with the so-called mega-projects is at the heart of both of these phenomena.

Table 5. Growth of GDP components, 1992-2003

	1992-95	1996-99	2000-03
	<i>Annual growth rates^a</i>		
GDP	3.1	9.6	7.8
Resource balance			
Exports	5.3	15.6	28.4
Imports	3.0	12.5	7.0
Consumption	1.4	6.5	4.0
Public	2.2	14.3	10.2
Private	1.5	6.0	3.3
Gross domestic investment	19.0	16.5	9.7 ^b
Public	12.0	12.0	16.2 ^b
Private	28.0	26.4	8.1 ^b

Sources: Live Data Base, in turn from Mozambican authorities, World Bank staff estimates and IMF.
^a Arithmetic average of the 4 annual growth rates for each period.
^b Least squares growth rates. Used on account of large year-to-year fluctuations of investment in this period. (The arithmetic average growth rates were 4.6, 13.0 and 10.1 percent respectively.)

42. Owing to the pronounced increases in investment and exports (most of which in turn originated in the mega-projects), GDP as a whole grew faster than private consumption. Between 1996 and 1999, GDP grew 9.6 percent annually and private consumption grew at 4.7 percent; between 2000 and 2003 the equivalent figures were 7.8 percent and 4.0 percent.⁴⁵ The wedge between output and consumption is likely to persist over the next five years as exports from the mega-projects are expected to continue to grow at high rates.

43. The growth of consumption, which was well in excess of population growth, provided the basis for the observed reduction in poverty. Much depends, of course, on the distribution of the growth in consumption. In the next section the supply side of GDP

⁴⁵ Consumption as measured by the household surveys was higher than these numbers. It is not unusual to find that consumption by the national accounts shows faster growth than that measured by household surveys – this has been observed in India and the United States. See the discussion by Deaton and Kozel (2004). (See also the reference in Chapter 3 on poverty, footnote 67 (p. 34).)

is examined, and this will give some insight into where and how the consumption increase was generated, noting particularly the role of agriculture.

D. EXAMINING GROWTH FROM THE SUPPLY SIDE

44. The sectoral breakdown of GDP is presented in Table 6.

Table 6. Sectoral breakdown of GDP, 1996-2003

	1996	1997	1998	1999	2000	2001	2002	2003
	<i>P e r c e n t a g e</i>							
Agriculture	30.4	30.0	27.3	25.7	21.2	20.1	20.6	19.4
Fishing	4.0	3.9	3.0	2.5	2.4	1.9	1.5	1.4
Mining	0.2	0.3	0.3	0.1	0.3	0.3	0.3	0.3
Manufacturing	8.6	9.5	10.9	11.6	12.0	13.6	12.0	11.7
Electricity and water	0.5	0.8	2.0	2.8	3.0	3.2	3.7	3.9
Construction	6.6	6.6	8.3	7.8	8.8	8.1	7.9	11.7
Commerce	23.8	23.0	22.3	22.1	21.5	22.7	24.7	22.5
Restaurants and hotels	0.8	1.2	1.1	1.2	1.3	1.4	1.3	1.3
Finance and insurance	3.7	3.2	2.7	2.0	4.0	3.7	3.8	3.2
Real estate	3.9	3.7	3.6	3.1	2.6	2.2	1.8	1.7
Public admin. & defense	2.6	2.5	2.8	3.6	3.6	3.7	3.6	3.8
Transport and commun.	8.6	8.9	9.2	9.6	10.5	10.8	11.3	12.2
Education services	1.4	1.5	1.8	2.5	2.8	2.5	2.4	2.5
Health services	0.4	0.4	0.5	0.8	1.1	1.1	1.0	1.0
Other services	4.3	4.2	4.1	4.4	4.9	4.8	4.1	3.5
	—	—	—	—	—	—	—	—
Total	100	100	100	100	100	100	100	100

Sources: Ministry of Planning and Finance, and mission computations. Shares computed using current Mt.

45. Between 1996 and 2003 there was growth in construction, tourism, certain manufacturing sub-sectors (particularly where the mega-projects are represented, as well as food and beverages), transport, services, and certain agricultural sub-sectors. There was less progress in certain manufacturing sub-sectors such as textiles. Detailed data on growth rates by sector are provided in Table 7 for 1996-2003. Also, Table 7 gives the contribution to overall growth, decomposed by sector, for the period 1995 to 2003.

Table 7. Gross domestic product by sector: real growth rates (percent)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	Mean 95-03 ^a	Contri- bution ^c
Overall GDP (m.p)	3.3	6.8	11.1	12.6	7.5	1.9	13.1	8.2	7.8	8.6	8.7
Agriculture	17.0	8.7	9.5	9.5	6.5	-13.1	10.6	12.1	9.0	5.2	1.69
Fishing	2.8	10.1	2.1	-11.0	-2.1	4.8	0.6	1.1	4.4	0.1	0.05
Mining	20.1	-19.9	21.1	20.6	-6.5	59.6	10.8	28.7	3.9	16.2	0.04
Manufacturing:											
incl. mega-projects	7.8	18.9	31.8	14.4	14.7	15.1	34.7	8.7	13.6	18.9	2.27
excl. mega-projects	7.8	18.9	31.8	14.4	14.7	1.9	0.4	0.7	4.3	9.9	0.81
Electr. & water ^b	6.6	18.0	37.9	279.0	78.3	-8.3	9.9	10.4	3.9	43.1	0.60
Construction	19.0	24.0	18.1	26.2	3.4	13.0	6.7	10.8	7.0	12.8	0.86
Commerce	-0.3	-1.0	8.3	12.1	2.5	3.2	17.6	4.6	4.6	7.0	1.15
Restaur. & hotels	-5.3	18.0	35.5	-2.1	5.4	6.8	4.0	5.1	9.3	8.4	0.11
Finance & insur.	3.5	-3.2	29.9	-17.4	-26.9	80.8	21.3	15.8	10.2	10.4	0.19
Real estate	2.7	4.4	2.3	9.8	2.8	1.5	4.6	0.7	6.1	3.9	0.15
Public adm. & def.	-52.2	-5.6	-0.9	2.8	18.1	6.1	22.3	7.4	11.2	8.6	0.18
Tpt & comm.	11.1	10.1	17.3	4.8	9.0	2.6	6.9	8.4	14.4	8.2	1.00
Education services	10.0	10.1	7.2	7.4	9.5	9.7	19.0	4.7	6.6	9.6	0.15
Health services	13.4	9.1	5.1	9.5	17.1	11.7	9.0	5.7	6.9	9.8	0.04
Other services	16.8	9.7	9.2	9.7	10.0	18.3	6.8	3.3	0.1	9.2	0.33

Source: Instituto Nacional de Estatística, Mozambique - website.

^a The annual least squares growth rate for the period 1995 to 2003. If X is the variable and t is time, the growth rate r is $[\exp(b^*) - 1]$ where b^* is the estimate of b from the regression $\ln X_t = a + bt$. The latter is derived by logging the compound growth equation $X_t = X_0(1+r)^t$ and setting $b = \ln(1+r)$. This is the equivalent of fitting an exponential trendline and has the advantage of exploiting information from all years and not just the two ends.

^b The very swift growth in the rubric "electricity and water" (42 percent) is due to the provision of electricity for the MOZAL aluminium plant during the construction period 1997 to 1999.

^c Contribution to overall annual growth in the period, in percentage points. Let $X_{i,t}$ be real output, where i indexes sectors, t indexes time (referring here to 1995) and $t+n$ refers to 2003. Then the contribution to growth of sector i is

$$\frac{X_{i,t+n} - X_{i,t}}{\sum_i X_{i,t+n} - \sum_i X_{i,t}} * 100 * \left(\frac{X_{i,t+n}}{X_{i,t}} - 1 \right)^{1/n}$$

46. Growth of the tourist industry is reflected in Table 7 in growth of the sub-sectors restaurants and hotels (10 percent annually between 1996 and 2003) and construction (13 percent between 1996 and 2003). As would be expected, given the expansion of educational, health and other services of government, the growth of the relevant sectors was very high, around 10 percent. The manufacturing sector had annual growth of 19 percent, much of it due to the mega-projects MOZAL I and II.⁴⁶ With the latter excluded, average growth was 10 percent for the period, slowing sharply to between 0.7 and 4.3 percent between 2001 to 2003.

47. The rightmost column in Table 7 presents the contribution to growth by each of the sectors, in percentage points. These numbers take into account the share of each sector. The most important single contributor to growth was manufacturing, with an overall contribution to growth of 2.3 percentage points per year, if the mega-projects are

⁴⁶ See the section on mega-projects, p. 23.

included, and 0.8 percentage points if they are excluded. This points up the significant role played by the mega-projects, discussed later in this chapter (see page 23). The second most important single sector is agriculture, with a contribution of 1.7 percentage points per year. Although agriculture grew at a slower rate than did the other sectors, it is the largest sector still (22 percent of GDP) and so its contribution to growth was large. We saw in the above section that consumption grew considerably during the period; the growth contribution of agriculture is one of the important elements in supporting consumption growth. As will be seen in Chapter 3 on poverty, this important result ties in with the finding that the sector with the largest contribution to poverty reduction was agriculture.

48. The next most important contributors to growth were commerce (1.2), construction (0.9) and transport & communications (1.0). The contribution of construction is understandable because the mega-projects required a great deal of construction, as can be seen in the jump in the growth rate of the sector in the late 1990s. The contribution of transport and communications reflects, among other things, the national road rehabilitation and maintenance effort and the growth of the telecommunications industry, particularly through cell phones. The contribution of infrastructure is discussed below (p. 20).

Growth in agriculture

49. In this section a brief description will be given of the agricultural sector and the factors underlying its growth in the past decade. In addition, the future prospects for the agricultural sector are covered in Chapter 6 (p. 110), and the rural land access is dealt with in Chapter 5 (p. 72) on natural resources. Three other pieces of work have recently been prepared: *Rural development strategy*, *Impact of extension services*, and *Contract farming and supply chain financing*. These are summarized in boxes 2 (p. 112), 3 (p. 113) and 4 (p. 114) respectively, and so only their main policy conclusions are mentioned in the main text.

50. While the industrial and service sectors of the economy have the potential to absorb increasing shares of formal sector employment in the long run, Mozambique remains largely an agricultural country. Some 80 percent of the economically active population is employed in the agriculture, forestry, and fishing sectors. The service sector (including government) employed 15 percent of the work force, with industry absorbing just 5 percent. Hence in the medium term further reduction in poverty will depend crucially on progress in the smallholder agricultural sector.

51. Smallholders in Mozambique generally have limited access to capital, have little schooling, and are exposed to meteorological risk and price risk. While 94 percent of rural households operate some land (mean 1.4 ha⁴⁷), only about a third sell any crop output. The most important commercial crops are basic food crops (maize, beans, cassava, rice) followed by cash crops (groundnuts and cotton). In contrast, fruit crops (cashew, mango and banana) are sold by many but in small quantities and are not major earners.

⁴⁷ Perumalpillai-Essex and Loening, 2005.

52. The household surveys of 1996/7 and 2002/3 reveal substantial improvements in the living standards of smallholders. This improvement arose from various sources: agricultural growth, improvements in technology, increased market integration, and increased generation of nonfarm income. As these candidates are discussed, in the subsequent pages, it will become clear that sustained productivity growth has not yet been achieved and that much of the growth in agriculture is ascribable to factor increases.

53. *Growth and "bounce-back"*. Overall, agricultural GDP growth between 1992 and 1997 was 6.8 percent per annum, slowing to 4.6 percent per annum between 1997 and 2003. It is no surprise that agricultural GDP grew fastest in the period 1992-1997/8/9. As late as 1996 internal refugees were still returning from the cities to their rural villages. Smallholders contrived to raise their maize yields from a nadir of 160 kg/ha in 1992 to over 1,000 in 1999, thereby catching up with the pre-Independence (1972) peak (see Figure 7 below, p. 111). The annual growth of foodgrains from 1994 to 1999 was 16 percent; that from 2001 (after the flood) to 2004 was 5.5 percent (Figure 2). Other big contributors to growth were sugar and tobacco. Some of the increase in output arose from area extension, particularly in the period 1993 to 1998, when sown area grew at a very swift 6.5 percent per year. The process of retrieving, between 1992 and 1999, what had originally been achieved, might well be called "bounce-back": an increase in factor inputs (labor,⁴⁸ land, unimproved seed), with very little technical advance, due to a post-conflict recovery.

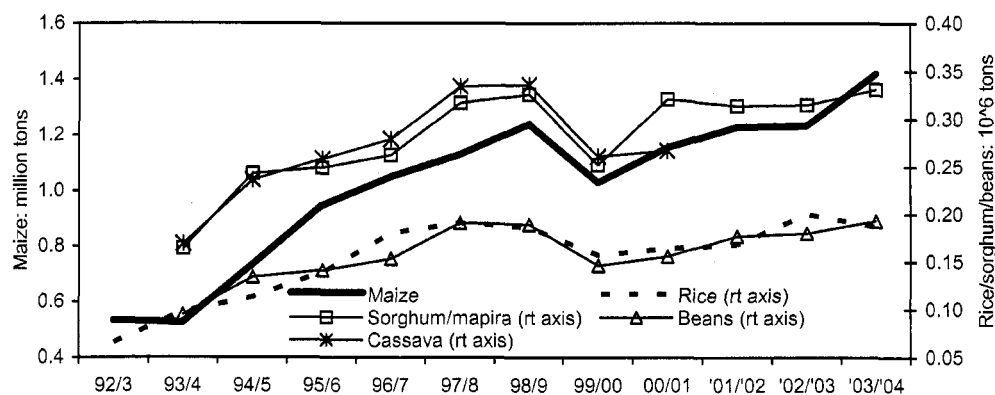


Figure 2. Food crop output, 1996/7-2003/4⁴⁹

54. Evidence on informal cross-border exports (particularly maize to Malawi) confirms the impression of substantial food crop output growth given by the national data.

⁴⁸ The labor force in agriculture grew by about 1 percent per annum between 1996/7 and 2002/3. See the discussion and figures in footnote 83 (p. 39).

⁴⁹ Source: 1993/4 – 2003/4: MADER – DINA – Departamento de Aviso Prévio. See also the synthesizing note by Sousa, Loening and Perumalpillai-Essex (2004). 1992/3 from Finney (2003), in turn from Aviso Prévio.

55. *Cashew and cotton* production both made impressive post-conflict recoveries but the gains appear to have tailed off since about 1998. As Mauritian investors rehabilitated the old factories, *sugar* production has shot up to its 1970 level, aided by a variable tariff of some 90 percent, as well as exemption from sales tax and investment incentives.

56. *Improvements in technology.* Food crop production is still rainfed, done by hoe, and mostly without fertilizer or improved seed. Some modest advances have been made, such as increased use of drought-resistant varieties and animal traction. A survey of farmers to examine the impact of agricultural extension (World Bank, 2005e) revealed that 43 percent of respondents had introduced new varieties in the previous five years if they had had extension advice, and 21 percent had introduced new varieties if they did not have extension assistance. This likely explains some of the yield increases in key crops such as maize (see Figure 7, p. 111 below). Use of natural or chemical fertilizer rose from 4 to 9 percent of households between 1997 and 2003. Cash cropping became more widespread – cashew cultivation increased from 28 percent of households in 1996/7 to 37 percent in 2002/3, cotton cultivation increased from 5 to 7 percent, tobacco from 2 to 4 percent. Many of the smallholders who increased fertilizer use are tobacco farmers in the Zambézia area, responding to the impulse from Zimbabwean farmer immigrants. However, this list of modest advances cannot explain value added growth of 5 to 7 percent per year; this reinforces the argument that factor mobilization was the key element responsible.

57. There is some modest evidence of *increased trade and market participation.* The north, center and south of the country used to be near-autarkic due to high transport costs and poor communication. With improvements in the quality of the roads, long-distance trade is occurring and there has been a tendency for prices to converge across sub-regions. Meanwhile, the fraction of households engaging in agricultural production for the market rose from about 14 percent in 1996/7 to 26 percent in 2002/3.

58. *Increased generation of nonfarm income.* There are some indications of modest increases in nonfarm income. Off-farm labor by agricultural households became commoner: in 1996/7 only 7 percent of households had a member engaged in off-farm labor, but by 2002/3 this had increased to 16 percent. Households with a member working for Government or NGOs rose from 2 percent in 2002/3 to 6 percent by 2002/3. These improvements were generated mostly in the three southern provinces (18 percent of the population), where the natural resource base is limited and the climate is not conducive to agricultural production.

Growth in manufacturing

59. Between 1995 and 2003, manufacturing value added increased by 10.1 percent per annum (18.1 percent per annum if the mega-project Mozal is included, which was better than GDP growth which averaged 8.4 percent annually. The share of manufacturing in GDP was 9 percent in 1996, and since manufacturing growth exceeded overall GDP growth, its share rose to 10 percent by 2003 (13 percent with Mozal).

60. *Manufacturing sub-sectors.* By far the largest manufacturing sector is food, beverages and tobacco, with 74 percent of the total sector's output (Table 8). It is followed by non-metallic minerals with 16 percent. All the rest have shares of 2 percent or less.

Table 8. Real industrial production index by subsector (1999=100)

	1999	2000	2001	2002	2003	Ann. growth ^a	Share in 2003
Manufacturing	100	109	121	144	203	19	100 %
Food, beverages and tobacco	100	109	115	148	212	21	74
Textiles, clothes and leather	100	41	53	57	81	-5.0	1.6
Lumber	100	105	152	98	74	-7.4	0.3
Paper (graphic arts & publications)	100	85	92	110	130	6.8	1.7
Chemistry and petroleum products	100	102	111	89	92	-2.0	3.3
Non-metallic minerals	100	152	213	191	334	35	16
Metallurgy excl. Mozal	100	32	12	17	20	-33	0.1
Metallic products & tpt equipment	100	131	143	235	158	12	2.1
Other manufacturing products	100	127	141	160	189	17	0.03

Source: Instituto Nacional de Estatística, Mozambique – website.
^a Annual percentage growth, 1999-2003, using endpoints.

Manufacturing growth between 1999 and 2003 was driven basically by the largest subsector, namely food, beverages and tobacco (21 percent annually in real terms). Lesser contributions came from non-metallic minerals (growing at 35 percent annually), paper (7 percent) and metallic products (12 percent). The remaining subsectors stagnated or declined.

Growth in infrastructure

61. Mozambican business people report that two of the few aspects in which the business environment has improved are telecommunications and roads. While it is not possible to quantify the impact that this had on growth, it is worth documenting the improvements made.

62. The *telecom liberalization* has proven to be a remarkable success story of institutional change. As of 2000, there were 85,000 land lines and 51,000 cellphones. Telephone charges were high and the quality of the cellphones was poor. The government created an independent regulatory body, revised the sector law and attracted a new mobile operator. By 2005 there were 800,000 mobile phone subscribers, many of them outside of Maputo, and the quality of service has improved substantially.

63. While Mozambique still has one of the least developed *road networks* in the southern African region, it can boast of remarkable achievements in network rehabilitation. Between 1992 and 2000, roads in good or fair condition rose from 10 percent to 57 percent of the classified network, and impassable roads decreased from 50 percent to only 8 percent.⁵⁰ This noteworthy achievement is superior to that of some of Mozambique's neighbors. For instance, Mozambique's unpaved roads in good to fair condition rose from 20 percent to 51 percent, while those in one large neighboring landlocked country decreased from 65 percent to 26 percent. Given the importance of

⁵⁰ Since then, road in good and fair condition rose to 70 percent by 2003, and impassable roads fell to 5 percent (source: the Mid-Term Review of the 10-year roads program in May 2005). However, these data are less reliable because they are not survey-based.

roads for internal trade, for communications, for agricultural production, and transport of personnel, the rehabilitation of the road network may well have contributed to the growth process.

E. A “GROWTH ACCOUNTING” APPROACH

64. It is useful to try to understand the extent to which factor increases and productivity increases have played a role in inducing Mozambique’s growth in the past decade. Recent analysis by the IMF (2005) is quoted at some length. A standard Cobb-Douglas production function is used, together with assumptions which are commonly used in the growth accounting literature: (a) that the capital stock series can be constructed using the perpetual inventory approach; (b) that depreciation was constant at 6 percent and that the capital-output ratio was 1.5 in 1980; (c) that population can be used as a proxy for labor force in the absence of employment information; (d) that, as in Tahari *et al.* (2000), the labor and capital shares were 0.6 and 0.4 respectively.

65. Before proceeding to examine the results, the limitations of the methodology should be stated plainly. Interpreting the “Solow residual” as total factor productivity is a heroic assumption, because besides gains in economic efficiency, the residual may also reflect political factors, institutional and policy changes, climatic shocks and measurement errors (Bosworth and Collins, 2003, and Tahari *et al.* 2004). If the residual is only the “measure of our ignorance” (Solow, 1957) then the TFP numbers are uninterpretable.

66. The results in Table 9 suggest that growth has been increasingly driven by improvements in “total factor productivity” (TFP). This is in line with similar exercises for other sub-Saharan African countries.⁵¹ The increases in the TFP contribution in 1993-2004 coincides with the postward period of macroeconomic stabilization and implementation of structural reforms and higher inflows of foreign capital and concessional assistance.

Table 9. Sources of economic growth from a Solow-Denison model (percent)

	1981-2004	1981 - 1984	1985 - 1992	1993-2004
Real GDP growth	3.94	-6.0	3.2	7.8
Factor accumulation 1/	2.4	-0.7	2.1	3.6
Solow residual (interp. as TFP) 2/	1.6	-5.3	1.1	4.2
<i>Memorandum items:</i>				
Investment-GDP ratio	22.4	18.7	21.7	25.5
Real investment growth	6.2	-1.2	2.5	9.1
1/ Accumulation of labor and capital, using factor shares of 0.6 and 0.4 respectively.				
2/ Residual from the growth accounting exercise.				

⁵¹ See Tahari and others (2004) for Sub-Saharan Africa countries’ comparisons and Treichel (2005) for Tanzania.

67. Factor accumulation accounted for most of growth in the period 1985 to 1992 (2.1 percent of 3.2 percent). Factor accumulation picked up after 1993 to 3.6 percent per year, but TFP rose even more to 4.2 percent. If the TFP findings can be believed, then Mozambique's experience confirms what the empirical literature has indicated are the main determinants of TFP growth:

- improved institutions and human capital development (health, education);
- a favorable macroeconomic policy environment (less external debt, lower government consumption, lower inflation); and
- diversification of the economic base arising from structural reforms including privatization, financial sector reform, and trade liberalization.

68. We are on slightly firmer ground when restricting the examination to the factor accumulation side – because this frees us from the assumptions about the nature of the TFP residual. The approach can be used, then, to examine the impact of education on growth. From regression approaches on household data sets, the impact of education on consumption and on wages in Mozambique may be characterized simply:

- positive but small impacts (about 3 percent per year of school) in rural areas – which reflects essentially smallholder agriculture;
- large impacts (between 10 and 15 percent) in rural non-farm pursuits (Walker *et al.* 2004, and Perumalpillai-Essex and Loening 2005);
- large impacts (5 to 15 percent per year of school) in the urban economy, with returns rising sharply at the higher levels (see Chapter 3, Annex Table 32, p. 158).

69. Carrying out the standard Denison (1967) decomposition of growth yields two key findings (see Benito-Spinetto and Moll, 2005):

- The rate of growth of labor force quality – viz. the impact of education on the quality of the work force – is 0.6 percent per year, within the range of that achieved in other countries. In order to continue labor force upgrading at this pace, it will be necessary to vastly expand secondary schooling access.
- In Mozambique, education accounts for about 7 percent of the growth observed between 1997 and 2002 (or about half a percentage point of growth per year). Again, this is within the range of what is calculated for other countries.

F. IDIOSYNCRATIC SOURCES OF GROWTH

70. What factors could explain Mozambique's idiosyncratically high growth rates? Candidates are: exceptionally high investment rates owing to megaprojects and links with neighboring countries; postwar catch-up and the recovery of traditional markets, especially in agriculture, and massive foreign aid receipts.

Investment rates, foreign investment and skills

71. As a result of massive aid, megaproject interest, and location adjoining South Africa, investment rates in Mozambique were high. Investment as a percentage of GDP

rose from 23 percent in 1995 to 28 percent in 2003. By contrast, investment during the 1990s in sub-Saharan Africa was 19 percent of GDP.

72. *Foreign investment and skills.* During the 1990s, Mozambique became an attractive location for foreign investment. South Africa, in particular, became the Mozambique's biggest trade partner, accounting for 40 percent of Mozambique's imports and 20 percent of its exports. South Africa has become the largest investment partner of Mozambique. South African investment represents 35 percent of foreign direct investment (FDI) inflows to Mozambique. In most years, FDI from South Africa greatly exceeds domestic private investment. It involves such things as the Maputo Corridor (road infrastructure), Motraco (electricity supply to Mozal), sugar, beer, soft drinks, cereal milling, most tourism facilities, and some agro-industry projects such as cashew processing and coffee.

Post-war catch-up and recovery of traditional markets

73. Before independence Mozambique was the tourist's playground. During the 1990s the country started to regain this large market, as well as attract international conferences. An indication is the 17 percent growth rate in the number of rooms in luxury hotels.

74. Recovery of traditional agricultural markets is another factor. In the early 1970s cash crops accounted for almost two-thirds of Mozambique's export revenues. During the socialist period, production of cash crops declined sharply. Some agricultural markets are starting to recover their pre-independence volumes, e.g. citrus, bananas, sugar, and tobacco.

Mega-projects

75. Mozambique currently has three "mega-projects"—the Mozal aluminum smelter Mozal, the Cahora Bassa hydroelectric plant and Sasol gas project which extracts gas at Temane and exports to South Africa via pipeline. Several more are planned up to 2010. Two factors weigh heavily in the decisions of these instances to invest in Mozambique: tax and importation advantages which were negotiated on a one-on-one basis; and the availability of natural resources – gas, titanium, water, and coal.

76. As a group, between 1998 and 2002, the mega-projects increased from zero to 7 percent of GDP. By implication, the megaproject contribution to GDP growth in the period was about 1.6⁵² percentage points of GDP growth annually. On average, the megaprojects added some 0.4 percent of GDP per year to fiscal revenues, and 48 percent of GDP per year to exports of goods.⁵³ Contributions to the overall BoP are modest given the generated debits, such as the imports of raw materials, debt service payments, profit repatriation, and investment and management services. Nevertheless, the mega-projects contributed on average US\$113 million per year in net flows to overall BoP

⁵² Divide the *growth* of GDP from mega-projects by total *growth* of GDP: suppose GDP is 1 in 1996, then total GDP *growth* is $1.08^5 - 1$, and total mega-project *growth* is $0.07 * 1.08^5$. Dividing, the mega-project contribution is $0.07 * 1.08^5 / (1.08^5 - 1) = 20\%$. And 20% of the 8% growth rate = 1.6 percentage points.

⁵³ See Annex Table 8, p. 139, for a detailed table of the various impacts of the mega-projects.

between 1998 and 2002. It is estimated they will contribute US\$ 327 million per year on average between 2003 and 2010.

77. The mega-project direct contribution to local employment also varied greatly depending on the phase the project was at (construction or operating). Mozal employed 5,000 people during construction, and about 1,000 during the subsequent production phase. More important is the contracting of Mozambican supplier firms which creates employment indirectly. Total local purchases by the mega-projects, at an estimated \$50 million per year, are still a fraction of total sales of \$1 billion per year (water, electricity, catering, cleaning and security), but the figure is rising, with technical assistance from a multilateral aid project.

78. The tax contribution has been very limited – 0.4 percent of revenues – given all the attractive incentives such as free profit repatriation under the provision of the industrial free zone legislation and the Investment Project Authorization. However, the authorities project that future contributions will increase to 3 or 4 percent of revenues by 2010 as the special provisions start to expire in 2005.

79. The future contribution of the mega-projects, including Moma Heavy Sands, Gaza Heavy Sands and the Mpande hydroelectric plant, is expected to peak at 12 percent of GDP in 2007, falling to 10-11 percent by 2010 as construction terminates.⁵⁴ They will contribute about 0.5 percentage points to the growth rate annually. All in all, their main impact on poverty is through their tax contribution, and so a fruitful avenue for poverty-reducing policy in the future is to simultaneously improve the efficiency of tax collections and to improve the quality of spending in poverty-relevant areas. The megaprojects helped “put Mozambique on the map” and will probably encourage *non-megaproject* investment also. All these effects have been positive to greater or lesser degrees, and no negative effects have been observed. Hence overall there is at least a *prima facie* case that the authorities’ unorthodox policy of tailor-made tax breaks and importation advantages has been successful.⁵⁵

Foreign aid

80. Between 1997 and 2003, Mozambique’s foreign aid receipts were of the order of 12-19 percent of GDP (see Table 3, p. 8), or \$500-700 million, including both program and project assistance. Mozambique is one of the continent’s largest recipients of aid, garnering \$58 per inhabitant, more than double the sub-Saharan African average of \$26 (Figure 3).

⁵⁴ See Annex Table 9, p. 140, for further detail on the future of the mega-projects.

⁵⁵ A complete cost-benefit analysis of the mega-projects is beyond the scope of this Memorandum. Such an investigation would need to compare – in a general equilibrium framework – the cost of the tax breaks and the poverty-reducing impact of the lost taxes, versus the employment effects and the broadening of the long-term tax base that the mega-projects brought.

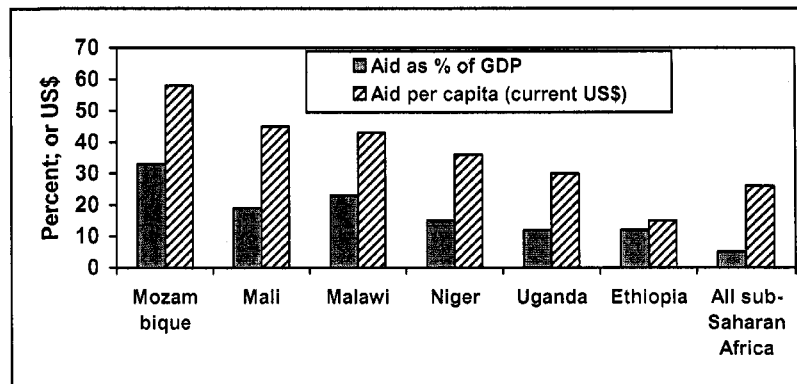


Figure 3. Selected sub-Saharan countries: Net aid as a percentage of GDP, and annual per capita aid, average 1983-2002⁵⁶

81. During the period under review, the nature of aid to Mozambique has changed in several dimensions. Program aid has gained in importance *vis-à-vis* project aid, rising from 23 percent of all aid in 1995/6 to 31 percent in 2001/2. Grants have grown relative to loans, increasing from 52 percent of all aid in 1995/6 to 69 percent in 2002/3. In addition, there were the two rounds of the Heavily Indebted Poor Countries initiative, in 1999 and 2001, which massively reduced Mozambique's external debt stock. Sectoral allocations remained constant, barring health's share which rose from 9-11 percent in 1995 to 14 percent of all project aid by 2002.⁵⁷

82. Did aid "work"? By and large it seems that it did. A broad range of indicators in the health and education fields suggest substantial improvements since the early 1990s (Table 10). The key health indicator is the infant mortality rate, which fell from 149 in 1995 to 101 in 2003, one of the fastest reductions observed in Africa. In education, the headline figures are the gross enrolment percentage for lower primary, which rose from 56 to 100 percent, and the completion rate for lower primary, which rose from under 20 percent in 1990 to 36 percent in 2002. Literacy rose from 40 percent in 1996/7 to 45 percent in 2002/3. There have been big improvements in the quality and the coverage of the road system, as mentioned above. There have been major improvements in access to safe water in rural areas – from 12 percent of households in 1996/7 to 27 percent in 2002/3 and smaller improvements in urban areas. At the same time, it must be recognized that aid is often used inefficiently. An example of this is given by the widely differing unit costs of building educational facilities or rehabilitating roads, depending on which donor is involved.

⁵⁶ Source: World Bank, 2004. *Africa Development Indicators*, Chapter 12, tables 9 and 15.

⁵⁷ See Annex Table 10, p. 140, for detail on the distribution of project aid by sector.

Table 10. Indicators: health, education, water, 1990-2003

	Start year	Statistic	End year	Statistic
Health				
Infant mortality rate (per 1,000)	1995	149	2003	101
Use of contraceptives by women (%)	1995	6	2003	17
Births attended by a health professional (%)	1993	26	2003	48
HIV/AIDS prevalence (%)	1995	n.a.	2004	16.2
Vaccination coverage (%)	1995	55	2003	82
Education				
Gross enrolment rate, EP1 (%)	1992	56	2003	110 ^c
Gross enrolment rate, EP2 (%)	1992	13	2003	35
Gross enrolment rate, ESG1 (lower secondary) (%)	1997	6	2003	15
Completion rate, EP1 (%)	1990	<20	2002	36
Adults with completed primary (EP2) (%)	1996/7	8	2002/3	11
Average years of education of the <i>rural</i> population:				
Men	1996	2.1	2002	2.7
Women	1996	0.7	2002	0.9
Literacy (self-ascribed, "can read and write")				
Urban (%)	1996/7	40 ^a	2002/3	45 ^b
Rural (%)	1996/7	71 ^a	2002/3	69 ^b
Men (%)	1996/7	32 ^a	2002/3	33 ^b
Women (%)	1996/7	59 ^a	2002/3	64 ^b
Water	1996/7	24 ^a	2002/3	30 ^b
Access of households to safe water, rural (%)	1996/7	12	2002/3	27
Access to household to safe water, urban (%)	1996/7	56	2002	64
Sources: Health from the two DHSs and the Ministry of Health. Education enrolment from the Ministry of Education. Average years of education from the IAF. See further detail in Benito-Spinetto and Moll (2005). Water access from the IAF; see paragraph 270 and footnote 128 (p. 80) for further discussion of water access figures.				
^a Literacy 1996/7: from Ministry of Planning and Finance <i>et al.</i> (1998), Table 2.10. In turn from IAF. Referring to adults aged 18-65.				
^b Literacy 2002/3: from IAF, underlying calculations for Fox <i>et al.</i> (2005). Referring to people aged 18-65. Note that urban literacy has gone down – this is probably because of the change in the definition of "urban" which resulted in the urban population increasing by half, and encompassing people with less education who had previously been classified as rural.				
^c GER: from World Bank (2005a, Table 3.3, p. 21), in turn from Ministry of Education, <i>EducStat</i> annual school survey, 2003				

83. What was the impact of aid on growth? Some simple approaches would suggest a substantial impact. An ICOR (incremental capital output ratio) approach suggests that aid may have delivered 2.5 to 4.0 percentage points of growth per annum. Manipulating the coefficients relating to the effectiveness of aid in Burnside and Dollar's (1997b) multi-country study suggests an impact of 4.8 percentage points. Alternatively, a study of aid in post-conflict societies (Collier and Hoeffler 2002) concludes that aid delivers an increment to growth of two percentage points in the period 3-8 years after the reestablishment of peace.

84. In order to investigate the links between infrastructure, public investment, aid, growth and poverty, a simple general equilibrium model was built, in the spirit of work by Agénor *et al.* (2004) and the well-known 1-2-3 model (Devarajan *et al.* 1994).⁵⁸ The 1-2-3 component of the model posits a small open economy which produces an

⁵⁸ Thanks to: R. Agénor for the idea of linking growth, infrastructure, and aid (Agénor *et al.* 2004), and for advice on modeling; D. Go for advice on modeling and for providing the 1-2-3 EXCEL-based model; L. Koryukin for EXCEL Model Builder.

exportable and a non-tradable, and in which there is imperfect substitution in demand as between the nontradable and imports, and imperfect substitution in supply as between the nontradable and exports. The 1-2-3 is static, applying just to a single year. In order to get a multi-year perspective, a set of growth equations is set up in which output is a function of worker education levels, public health capital stock, population, the private capital stock, the public infrastructure capital stock, and the quality of infrastructure. In addition, several variables are estimated econometrically. The details of the model are explained at greater length in Benito-Spinetto and Moll (2005).

85. Aid influences the economy through government consumption, government investment, and tax. In turn government investment is allocated (by assumption, exogenously) over health and infrastructure investment, thereby adding to the existing stock of capital in health and infrastructure; and these feed into the equations determining the growth rate. The imperfect substitution assumptions permit us to examine the impact of policy changes on the real exchange rate.

86. The key simulation is that of a 10 percent reduction in aid in the first year, 2004. (This is not to say that aid is about to fall; one might equally experiment with an increase in aid of x percent per year.) This results in a reduction of average annual growth between 2005 and 2010 by 0.42 percentage points. This would give an upper bound on the impact of aid of 4 percentage points.⁵⁹

87. What happens to the real exchange rate in response to the simulated reduction in aid? If one were to consider only the demand side, the lowered demand for non-tradables would result in a decline in their price, viz. result in a weakening of the real exchange rate. But this model takes into account the supply side also. The withdrawal of aid reduces public investment, particularly in health and infrastructure, so that public health capital and infrastructure capital grow by smaller amounts. This results in lower growth of output. In this case, the lessening of supply neatly offsets the lessening of demand for nontradables, and there is barely any change in the real exchange rate between the base and the simulation scenarios. Hence “dutch disease” appears not to be an important factor. This ties in with the observation in Figure 1 (p. 9) that the real exchange rate has strengthened by only 20 percent despite the massive inflows of aid since 1992.

Combining the sources of growth

88. It is not possible, given the present state of economic knowledge and given the country’s data base, to give a complete breakdown of Mozambique’s growth rate by source. Nevertheless it is possible, after the above investigation, to provide at least a rough explanation for a good part of the growth observed.

89. There is a broad overlap between the findings from the four dimensions of growth – demand side, supply side, growth accounting and idiosyncratic factors. The increase in investment and exports noted on the demand side (p. 14) corresponds to the large contribution of the manufacturing sector on the supply side (Table 7, p. 16). This in turn corresponds to the “idiosyncratic factor” of the mega-projects, which were calculated to have raised GDP by about 1.6 percentage points per annum (p. 23). When looking at the

⁵⁹ A CGE model (Tarp et al., 2002) indicated that, as of the mid-to-late 1990s, aid added 5 percentage points of GDP per annum.

supply side, it was found that the agricultural sector accounted for the second-largest sectoral contribution to growth (1.7 percentage points out of 8.6). This corresponds with the finding in Chapter 3 on poverty that agriculture was the sector with the largest contribution to poverty reduction. The agriculture contribution also corresponds to the finding from the section on growth accounting (p. 21) that a substantial part of the growth observed was due to factor increases – in the case of agriculture, increases in land area.

G. CONCLUSIONS

90. This inquiry has shown a fairly optimistic picture about Mozambique's growth record. In answer to the first question – *was growth broad-based?* – it is clear that growth was broad-based, with considerable progress being registered in agriculture, but also that there was growth in virtually all sectors, the sole exception being that parts of the manufacturing sector declined (at least in total employment – see Table 21, p. 39), probably due to the restructuring associated with privatization in the mid-1990s.

91. In answer to the second question – *is growth sustainable?* – the response goes two ways. Some part of the growth is not sustainable. The bounce-back in agriculture is unrepeatable and agricultural growth rates have fallen since their 1990s levels. The impact of aid will decline in the future simply because the amount of assistance will fall as a fraction of GDP.

92. On the other hand, much of the growth observed is sustainable, provided there is improved economic management. Mega-project investment appears to have good prospects for the next decade; tourism has good prospects also as will be seen in Chapter 6 (p. 116), and several key natural resources are far from fully exploited, as will be seen in Chapter 5 (p. 69).

93. In answer to the third question – *did Government efforts assist in the growth process?* – it has emerged that the authorities' efforts did indeed make a contribution. Relative macroeconomic stability, the expansion of infrastructure, and the development of education were all essential elements. More effort will be needed, however, to secure improvements in public finance management and in resource mobilization. In particular, better focused attention is needed for "behind the border" policies to facilitate trade, and this will be discussed further in Chapter 4 (p. 47).

CHAPTER 3. POVERTY

A. INTRODUCTION AND SUMMARY

94. This chapter surveys Mozambique's progress in poverty reduction over the last six years. Using two cross-sectional national household surveys (1996/7 and 2002/3), growth in household consumption, changes in the distribution of that growth and the role these two factors played in reducing poverty, are analyzed. Changes in non-income poverty measures are also analyzed, including changes in assets and access to services. The correlates of poverty in 2002/3 are analyzed using bivariate and multivariate techniques. Finally, a profile of household livelihood strategies and labor market behavior of households is provided as a basis for linking macro and sectoral strategies to households.

95. The main finding is that as a result of strong growth in incomes in the agricultural sector as well as the non-agricultural sector, poverty declined rapidly in Mozambique over the 96/97-02/03 period in rural areas and in most urban areas. The decline was broad based, and can be seen in improvements in both monetary and non-monetary poverty measures. One key reason for the good poverty performance is that inequality did not change much, so aggregate growth in consumption reached poor households and raised their consumption levels.

96. Despite this good progress, more than 50 percent of the population remains in poverty today. The poor in Mozambique are mostly living in rural areas and working in agriculture, although increasingly one earner in the household will get income from another sector as well. Poor adults have little education, and their children are less likely to be in school. Many still do not have access to safe water, and have inadequate housing. Lifting the other 50 percent out of poverty will require continued broad-based growth in the economy, coupled with continued expansion of social services to the poorest.

B. TRENDS IN POVERTY MEASURES⁶⁰

97. There is overwhelming evidence that income poverty declined sharply between 1996/7 and 2002/3, from 69 percent to 54 percent. In this examination, the Ministry of Planning and Finance methodology was used, which calculates a consumption aggregate by deflating food prices temporally and spatially.⁶¹ This amounts to computing different

⁶⁰ This section builds on the analysis done in the Ministry of Finance and Planning of these two surveys. See Ministry of Finance and Planning *et al.*, 2004.

⁶¹ An adjustment that was experimented with was to use adult equivalent consumption (that is, taking into account the size of the household and compensating for the fact that adults consume more than children) instead of per capita consumptions. In the event none of the key results is changed by using this approach.

nominal poverty lines by province, by urban/rural location, and by year. Poverty fell in all provinces but Maputo and Cabo Delgado (Table 11).⁶²

Table 11. Poverty headcount by province (percent)

	1996	2002
All	69.1	54.1
Urban	61.7	51.6
Rural	71	55.2
Niassa	69.9	49.5
Cabo Delgado	56.8	62.8
Nampula	68.7	53.6
Zambezia	68	45
Tete	80.3	58.7
Manica	62.3	44.4
Sofala	88.2	34.1
Inhambane	83.8	81.1
Gaza	65.4	59.7
Maputo	64.8	71
Maputo city	47.3	53.2

Source: Fox *et al.* (2005), using the IAF surveys.

98. Rural poverty fell slightly more (by 22 percent) than urban poverty (by 16 percent), as emerges in Table 12. This result is somewhat misleading because the Government changed the definition of an urban area based on the census data, increasing the urban population by 50 percent. In the last two columns, we show the changes using a consistent definition of urban areas, and see that in the most urbanized locations, poverty did fall in step with rural areas.

⁶² But see footnotes 63 and 64 (p. 31).

Table 12. Percentage change in poverty rates, adjusting for urban/rural border changes

	Using per capita consumption		Using per adult equivalent consumption, consistent 1996 urban/rural	
	Urban	Rural	Urban	Rural
Niassa	-27.1	-26.3	-23.2	-30.3
Cabo Delgado	-15.5	15.0	0.6	11.3
Nampula	-45.6	-11.6	-66.3	-9.7
Zambezia	-23.1	-35.1	-58.1	-33.7
Tete	-12.6	-29.3	-8.4	-28.9
Manica	-14.9	-36.0	-7.3	-34.9
Sofala	-44.5	-63.4	-47.1	-64.8
Inhambane	15.2	-3.0	18.1	-7.3
Gaza	-17.4	-3.6	-14.1	-8.1
Maputo	28.2	5.5	33.1	7.4
Maputo City	12.8		12.5	
All	-16.5	-22.3	-19.4	-22.3

Source: Fox *et al.* (2005), using the IAF surveys.

99. Poverty reduction was broad based: it decreased overall and in most areas, and also the depth (poverty gap) fell by 28 percent, and the severity (squared poverty gap) fell by 34 percent.

100. In respect of poverty reduction performance, Mozambique has overtaken some countries in the region. To compare Mozambique's poverty rate with that of its neighbors, we use the percent of the population living on less than \$1 (USD) in PPP terms, per day. According to this poverty line, 29 percent of the population would be classified as poor in 2002/3. Compared to its neighbors, Mozambique is poorer than South Africa (7 percent in 1995), Tanzania (20 percent in 1993) and Uganda (25 percent in 2002) but richer than Zambia (64 percent in 1998), and Malawi (42 percent in 1998). Mozambique is no longer the country with the highest poverty rates in the region.

101. Regionally, poverty reduction was greatest in the Center, especially in rural areas.⁶³ Poverty increased in the South, especially Maputo, as well as the surrounding province and in urban areas in Inhambane.⁶⁴ The small poverty reduction in the rural South was overwhelmed by the increase in urban poverty.

102. Poverty decreased unequivocally between 1996/7 and 2002/3, as emerges from the summary in Table 13. The mean percentile growth rate of 4.1 percent is the growth

⁶³ Government analysis attributes the increase in Cabo Delgado to poor sampling in both years but primarily in the earlier survey, which led to an underestimation of poverty in the 1996/7 data.

⁶⁴ This finding should be tempered: if the Government team had used the same food basket for both survey years, poverty in Maputo City would have fallen by 2 percentage points, rather than increased. But the change in poverty nationwide would have been smaller (-6.2 compared with -15.3 with the new basket). The change in baskets corrects for the large change in relative prices which occurred between the two surveys, partly due to the devaluation, which raised the price of imported food and non-food items. The Government paper argues that there was an increase in the quality of food consumed in the cities, which may have led to the finding of higher poverty rates.

rate of consumption of each percentile of households, between 1996/7 and 2002/3, and then averaged over all percentiles. The Ravallion-Chen (2003) “rate of pro-poor growth” is the mean growth rate of the poor, which is also positive, although less than the growth rate at the mean or the median, reflecting rising inequality.

Table 13. Growth of consumption and pro-poor growth

	Growth rate over the period 1996-97 to 2002-2003 (%)	Annual growth rate (%)
Growth rate in mean	30.9	4.6
Growth rate at median	27.4	4.1
Mean percentile growth rate	27.2	4.1
Rate of pro-poor growth ^a	25.7	3.9

Source: Fox *et al.* (2005).
^a Assuming a headcount index of 69.1 percent, and a poverty line of 11,240 Mt./day in 2002 real terms.

Non-income welfare trends

103. Other measures of well-being confirm that poverty has declined. The share of household expenditures on food has declined, indicating that poverty has fallen, because as households get richer they spend relatively more on non-food (Table 14). Households now own more durable goods such as radios and bicycles and have invested in home improvements. Noteworthy is the improvement in the proportion of houses which have been fitted with a better roof (16 percent up to 25 percent). In the poorest quintile, this rose from 11 percent to 27 percent, a good indicator of increases in wealth and welfare.⁶⁵

Table 14. Non-monetary measures of welfare (percentage)

	All		Urban	Rural
	1996	2002	2002	2002
<i>Food share</i>	68	61	50	66
<i>Durable goods</i>				
Radio	29	65	65	65
TV	5	9	23	1
Clock	24	43	60	34
Motorbike	1	2	3	1
Bicycle	13	40	23	50
<i>Housing</i>				
Durable wall	31	85	87	85
Durable roof	16	25	56	11

Source: Fox *et al.* (2005). See Annex Table 11, p. 141, for a breakdown by quintile.

104. Public policy has played an important role in improving welfare. The use of safe water (i.e. private or public tap water and protected springs) increased from 24 to 37

⁶⁵ See Annex Table 11, page 141 for the breakdown of Table 14 by quintile.

percent, the distance to water sources decreased, and latrine usage increased (Table 15). School enrollments increased dramatically (as has already been pointed out in discussing the role of foreign aid, Table 10, p. 26).⁶⁶

Table 15. Access to services

	<i>percentage</i>	
	1996	2002
<i>Water</i>		
Use safe water	24	37
Less than 30 minutes to water	69	90
<i>Sanitation</i>		
Latrine	35	45
<i>Education</i>		
Enrolled 7-12	51	93
Enrolled 12-18	41	69
Source: Fox <i>et al.</i> (2005). See further detail, and a breakdown by consumption quintile, in Annex Table 12, p. 142.		

105. Access to services has improved: attended births rose from 26 percent in 1993 to 48 percent in 2003, and vaccination coverage rose from 55 percent in 1995 to 82 percent in 2003 (Table 10, p. 26). Despite the increased “health effort”, health outcomes show a mixed picture. Infant and under five mortality rates have improved in all quintiles (Table 16), and contraceptive use has risen (Table 10, p. 26). But total fertility rates (TFR) have barely moved as a strong decrease in urban areas was balanced by a slight increase in rural areas. HIV/AIDS prevalence has risen to 16.2 percent. Malnutrition continues to be serious, with 41 percent of children stunted and 4 percent suffering wasting. The outcome on malnutrition is not exceptional. Income growth alone will not be sufficient to meet the Millennium Development Goal of halving the prevalence of underweight children (low weight-for-age), and direct interventions will be necessary (Haddad, 2003).

⁶⁶ See further detail, and a breakdown by consumption quintile, in Annex Table 12, p. 142.

Table 16. Selected health outcome indicators

	Total fertility rate (TFR) ^b		Infant mortality		Under 5 mortality	
	1997	2003	1997	2003	1997	2003
Total	5.6	5.5	147	124	219	178
Urban	5.1	4.4	101	95	150	143
Rural	5.8	6.1	160	135	237	192
Poorest quintile ^a	-	6.3	188	143	278	196
Poorer quintile	-	6.1	136	147	214	200
Middle quintile	-	6.3	144	128	216	203
Richer quintile	-	5.2	134	106	187	155
Richest quintile	-	3.8	95	71	145	108

Source: Fox *et al.* (2005); in turn from Demographic and Health Survey, 1997 and 2003; Gwatkin *et al.*, 2000.
^a Quintiles are wealth quintiles.
^b TFR: total fertility rate for ages 15-49, expressed per woman.

Inequality

106. One key reason for the strong poverty performance can be seen in the growth and distribution of consumption. Overall, consumption according to the household surveys grew at an average annual rate of 4.6 percent, which is slightly higher than the growth of private consumption measured in the national accounts.⁶⁷ Table 17 shows that in rural areas, the average consumption of the bottom quintile grew less than the other quintiles: 21.6 percent for the period, compared with around 30 percent in all other quintiles. In urban areas, real consumption growth was highest in the bottom and top quintiles and lower in the middle three quintiles. As a result, growth did not translate into as much poverty reduction in urban areas.

Table 17. Growth of consumption by quintile, 1996/7-2002/3 (percentage)

	1 st quintile	2 nd quintile	3 rd quintile	4 th quintile	5 th quintile	Total
Rural	21.6	30.0	31.1	31.1	30.1	27.5
Urban	27.0	11.2	14.8	16.5	28.2	24.4
All	23.4	25.6	27.8	28.1	36.1	30.9

Source: Fox *et al.* (2005)

107. These changes in the distribution of consumption can be summarized by the measures of inequality, the Gini and the Theil (Table 18). For Mozambique as a whole, there was a small increase in inequality over the period.⁶⁸ The movement in the Ginis was less than the movement in the Theil.⁶⁹ Inequality in urban areas is substantially

⁶⁷ See the discussion about the national accounts figures for consumption, footnote 45, page 14.

⁶⁸ This can also be seen in the growth incidence curve, Annex Figure 14, p. 144. James and Arndt (2005) claim that the increase was too small to be statistically significant.

⁶⁹ This may be because the Gini coefficient in effect weights more heavily changes around the middle of the distribution, whereas the Theil stresses the lower end of the distribution more.

higher than within rural areas. Despite the increase, Mozambique's overall level of inequality is one of the lowest in Africa.⁷⁰

Table 18. Measures of inequality, 1996/7 and 2002/3

	1996/7		2002/3	
	Theil	Gini	Theil	Gini
Urban	0.40	0.45	0.46	0.46
Rural	0.24	0.36	0.26	0.36
All	0.29	0.38	0.34	0.40

Source: Fox *et al.* (2005)

108. Are Mozambique's regions becoming more unequal? Concern has been expressed about a possible bias of growth in favor of the major cities of Maputo and Beira. As of 2000, per capita GDP was much higher in the provinces which include large cities (Sofala, at \$193, and Maputo at \$214, with Maputo City at \$1,137).⁷¹ Elsewhere, since the economies are overwhelmingly rural using similar technologies, the provincial GDP per capita within between the narrow compass of \$85 and \$137. If there were a bias towards Maputo and Beira, this would contradict the standard finding in the international literature that regions with lower GDP grow faster, conditional upon other growth-enhancing factors. Examining the hypothesis in Mozambique turned up three main findings (see Benito-Spinetto and Moll, 2005):

- Using provincial-level GDP data for 1996-2000, there is no relationship between starting GDP per capita, by province, and subsequent growth.⁷² Projecting forward, this would mean increasing inequality of GDP per capita at the provincial level.
- Using provincial-level investment data between 1996 and 2000⁷³, there is no convergence. In fact, Maputo province has a much higher investment rate per capita than the others.⁷⁴
- Using private consumption data for 1996/7-2002/3, there is no convergence for rural areas, but there is some convergence for urban areas.

109. Overall it is hard to conclude anything due to the data limitations. Accordingly no policy conclusions can be drawn. In any case, it should be noted that regional inequality may be driven by the process of growth. It may be that the best resources – in terms of institutions, infrastructure, labor, management, etc. – were available in the better-off areas, and for this reason the better-off areas attracted more investment. Hence there might be a welfare cost attaching to attempts to slow the divergence – if divergence it is. However, it is worth investigating whether through targeted infrastructural

⁷⁰ See Annex Figure 15, p. 145, for a comparison of Mozambique's inequality with other African countries.

⁷¹ See Annex Tables 4 and 5, p. 137.

⁷² See Annex Figure 6, page 138.

⁷³ Conservatively excluding MOZAL.

⁷⁴ See Annex Figure 7, p. 139.

investments, tax incentives, and other methods, ways could be found of directing investments to poorer provinces without “killing the goose that lays the golden egg”.

C. ACCOUNTING FOR THE CHANGE IN POVERTY

110. The major drivers of poverty reduction were (a) good results in the populous Center and North, (b) a reduction in rural poverty, and (c) a reduction in poverty of agricultural households. This emerges from Table 19, which shows the contribution to total poverty reduction of the growth in consumption of various groups, weighted by the share in the population.⁷⁵ From the decomposition of aggregate sectors, the change in poverty of households whose head works in agriculture accounts for fully 11 percentage points of the national reduction in poverty of 15 percentage points. Poverty continues to be primarily a rural phenomenon because the bulk of the population is rural.

Table 19. Decomposing poverty changes (geographical and sectoral dimensions)

Poverty in 1996 (%)	69	<i>Aggregate sectors</i>	(%)
Poverty in 2002 (%)	54	Change in agriculture poverty	-11
Total change in poverty 2002-1996 (%)	-15	Change in industry poverty	-0.7
		Change in service1 poverty	-0.9
<i>Regional decomposition</i>	(%)	Change in service2 poverty	-0.8
Change in poverty in the North	-3.4	<i>Total intrasectoral component</i>	-14^a
Change in poverty in the Center	-12		
Change in poverty in the South	0.2	<i>Urban-rural</i>	(%)
<i>Total intraregional component</i>	-15^a	Change in urban poverty	-2.5
		Change in rural poverty	-13
		<i>Total intrasectoral component</i>	-15^a
<p><i>Note:</i> Individuals are assigned to the sector where the household head is employed. ‘Service 1’ includes trade, transport and services; ‘service 2’ includes health, education, and public administration.</p> <p>^a The decomposition also allows for population shifts and an interaction factor. As these are small they are not reported.</p> <p>Source: Annex Table 17 (p. 147), in turn from Fox <i>et al.</i> (2005), Table 11.</p>			

111. The link between the agricultural growth noted in Chapter 1 (page 17ff) and poverty reduction in rural areas emerges from a graph of growth in maize and pulse output versus poverty reduction (Figure 5). There appears to be a reasonable correlation between changes in poverty and changes in food grain output, despite the expected problems of measurement.⁷⁶

⁷⁵ See the full details in Annex Tables 16 (p. 146) and 17 (p. 147).

⁷⁶ That is, in a perfect world all observations would be in quadrants 2 and 4, but in fact there are some in the other quadrants also.

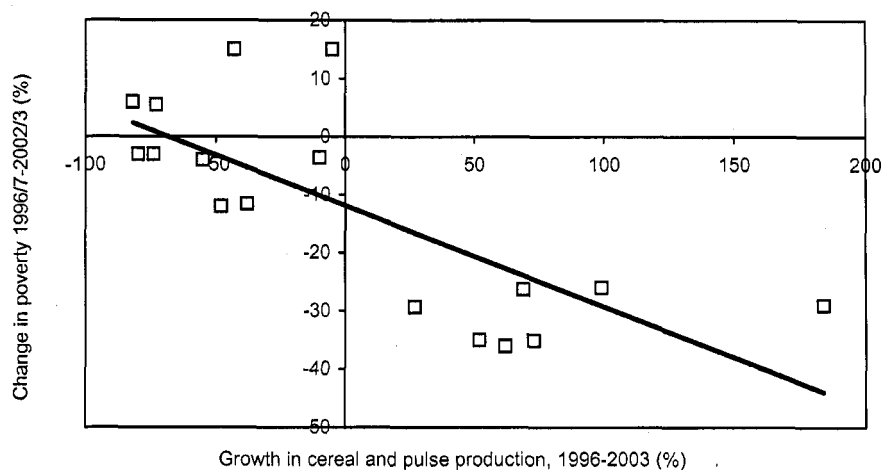


Figure 4. Food crop production and rural poverty, 1996-2003⁷⁷

Determinants of income and poverty, 2002/3

112. Poorer households can be characterized by a number of demographic and social factors (Table 20). They are more likely to be large. They have a larger number of dependants per working adult. They are more likely to be headed by a woman. They are more likely to have a disabled adult, and are characterized by low educational levels. The economic dependency ratio increased in all quintiles, especially in the bottom quintile where it rose from 1.1 to 1.5. Education – at least low levels of it, mostly just partially completed EP1 – has become more common: in the bottom quintile 50 percent of household heads had no education at all in 1996/7, and this fell to 38 percent in 2002/3. While the poor are most likely to be employed in agriculture, this too is changing: 87 percent of the bottom quintile were in agriculture in 1996/7 and this fell to 80 percent by 2002/3.⁷⁸ The top quintile works in agriculture, trade, services, education and public administration.⁷⁹

⁷⁷ Source: Jeeva Perumalpillai-Essex and Josef Loening (2005), in turn from staff estimates based on IAF 1996/7 and 2002/3 poverty data from Fox et al. (2005), and TIA 1996 and 2003 production data from Mather et al. (2005). The observations refer to provinces. Sofala province is omitted as an outlier for both grains and pulses, and Manica province is also omitted for pulses. This makes 9 observations (provinces) for grains and 8 for pulses. The estimated equation is: $\text{poverty_reduction} = -11.9 - 0.175(\text{crop_growth})$, with standard errors 2.9 and 0.039, and $R^2 = 0.57$.

⁷⁸ See Annex Table 18, p. 142, for details about sector of employment by consumption quintile.

⁷⁹ See Annex Table 18 (p. 148) for details on employment by consumption quintile.

Table 20. Household composition by consumption quintiles

	All		1 st quintile		5 th quintile	
	1996	2002	1996	2002	1996	2002
<i>Demographics</i>						
Household size	4.8	4.8	6.4	6.0	3.5	4.0
Female head	21%	25%	20%	27%	23%	25%
Disabled adult(s)	7%	7%	9%	10%	6%	5%
Economic dependency ratio ^a	0.99	1.23	1.14	1.54	0.77	1.04
<i>Head characteristics</i>						
Head no education ^b	41%	29%	50%	38%	32%	21%

^a Economic dependency ratio, i.e. number of people not working/number of people working.
Source: Fox *et al.* (2005), Table 13, which contains the full table, including all the quintiles and several more variables.

113. The key determinants of household consumption are *education, demography, and employment sector*, as emerges from a regression analysis.⁸⁰ *Education* of head has the expected positive signs, with convex returns (viz. larger effects per year of education as the level of education rises), reflecting the relative scarcity of secondary and post-secondary education. The impact of education is higher in urban areas than in rural areas for all levels of education.

114. Most *demographic* factors have effects that are roughly the same in rural and urban areas. The only exception is the number of men between 15 and 59 years old. This suggests that men in rural areas may not bring in as much in terms of household consumption as they take out, whereas men in urban areas do. The presence of disabled adults has a negative effect on household consumption in rural areas, as it adds to the dependency burden of the household. Households with a widowed head have less consumption in urban areas. As far as *sector of employment* is concerned, households in agriculture are among the lowest-consuming. Some of the sectoral differentials are quite large – of the order of 20 to 30 percent. In urban areas, working in education seems to garner consumption equal to that working in agriculture, which seems to suggest an emerging teacher pay issue.

115. Structural changes include a decline in the payoff to education in urban areas at the primary levels, and an increase for post-secondary education levels. The premiums for working in trade or services decreased in both rural and urban areas; this is presumably associated with the large observed increase in employment in these sectors. The premium for working in the manufacturing sector in urban areas fell from 16 percent in 1996/7 to virtually nothing in 2002/3; this may have been associated with the privatizations and restructuring of state enterprises which took place in the late 1990s.

Structure of income, livelihood strategies, and the labor market

116. Most households (88 percent in rural, 90 percent in urban areas) have at least one source of cash income, and many have more than one, in addition to income received in kind (e.g. from subsistence agriculture or self employment). Although subsistence production is by far the largest single source of income in rural areas, non-agricultural self employment income, as well as sales of agricultural produce and animal products

⁸⁰ The full consumption regressions are presented in Annex Table 19 (p. 149).

provide an important share.⁸¹ In urban areas, subsistence agriculture is much less important (only 12 percent of total income), as employment income provides the largest share, followed by self-employment income. Pensions are a significant source of income in urban areas, but they are virtually absent in rural areas. Remittances are a small source of income (2 percent of households).

117. By quintiles there are some significant differences in cash income sources. Not surprisingly, the top quintile gets less of its income from subsistence agriculture (26 percent) than the other quintiles (40 to 48 percent). Employment accounts for between 20 and 30 percent of income and there is no obvious pattern across the quintiles. Self-employment provides 20 percent of income in the top quintiles, but only between 5 and 8 percent in the other quintiles.

118. There have been dramatic inter-sectoral shifts in employment. As would be expected in the development process, the share of agriculture, forestry and fisheries in total employment fell from 87 percent in 1996/7 to 80 percent in 2002/3 (Table 21).⁸² This decline implies that the *absolute* number of people active in agriculture grew only slightly between 1996/7 and 2002/3.⁸³ The slack was taken up by trade, services and construction. Besides agriculture, the only other sector whose employment share declined was manufacturing: 2.3 percent to 0.8 percent. This was associated partly with the poor employment performance of the formal sector, as we shall see below. Most of the expansion of the labor force was absorbed by the informal sector, which grew at between 7 and 8 percent per annum.

Table 21. Employment by sector and by rural/urban location, 1996/7 and 2002/3

	1996/7 ^a			2002/3 ^a		
	Rural	Urban	All	Rural	Urban	All
	<i>p e r c e n t a g e o f w o r k f o r c e</i>					
Agric., forestry & fisheries	94.7	41.4	87.3	89.7	28.4	79.9
Mines	0.4	1.8	0.6	0.5	1.0	0.5
Manufacturing	1.2	9.2	2.3	0.5	2.3	0.8
Construction	0.5	4.6	1.1	1.3	6.6	2.1
Transport	0.2	4.3	0.8	0.5	4.1	1.0
Trade	1.1	16.4	3.2	4.0	25.0	7.4
Services	0.8	11.8	2.3	1.9	22.6	5.2
Education	0.5	2.3	0.8	1.2	3.8	1.6
Health	0.2	1.9	0.5	0.3	1.4	0.5
Public administration	0.3	5.1	0.9	0.4	4.9	1.1
Total	100	100	100	100	100	100

Source: IAF 1996/7 and 2002/3, Fox *et al.* (2005). The 1996/7 definition of "urban" was used in both 1996/7 and 2002/3. Urban areas were extended by some 50 percent in the intervening period. Age group: 10-59 years.
^a Employment includes self-employment, family employment and employers.
 For a breakdown of this table by poor and non-poor, see Annex Table 23 (p. 153).

⁸¹ Diagrams detailing the source of income are given in Annex Figures 20 and 21 (p. 150). The latter gives these by quintile.

⁸² See also a table on employment by employer type (Annex Table 3, p. 137).

⁸³ Using INE's figure of population growth of 2.4 percent per annum (Table 1, p. 2), this would imply growth of the agricultural labor force of 0.98 percent per annum between 1996/7 and 2002/3.

119. Poverty declined the most for households whose heads were in education (53 percent to 27 percent), health (61 percent to 43 percent), and transport (54 percent to 35 percent).⁸⁴ The increase in real public sector wages probably explains the decline in poverty in education and health sectors.

120. Formal sector employment growth – not unexpectedly – was very low indeed. Panel data surveys of the manufacturing sector give a growth elasticity of employment of only 0.1,⁸⁵ which is below the average in other African and developing countries.⁸⁶ What this means, in plain terms, is that if the economy grows by 10 percent, formal sector employment grows by only 1 percent.⁸⁷ This was in a context of swift growth of firm sales – of the order of between 6.5 and 30 percent per year. For lack of data, it is not known whether formal employment in other sectors (e.g. services) grew at faster rates.

121. *Does labor law hamper employment in the formal sector?* Mozambique has the eighth least flexible labor market in a survey of 145 countries (World Bank 2003e).⁸⁸ In almost every dimension, Mozambique's regulations are more restrictive than the region's, particularly in respect of severance pay and dismissal notice.⁸⁹ Retrenchment is costly and time-consuming: it costs 141 weeks of wages to retrench a worker in Mozambique, while the average in Africa is 60 weeks' wages.⁹⁰ To the extent that this cost is binding, making dismissals expensive may have the unintended effect of discouraging hiring in the first place. Almost 45 percent of foreign-owned firms claimed that they were being forced to retain excess workers on account of the high cost of retrenchment (World Bank, 2003a, p. 35) There are further problems. Piece rates, a standard way of linking pay to productivity, are not allowed. Hiring expatriate employees, despite the changes introduced by Decree 57 of 2003, is cumbersome and expensive.

122. There would seem to be a *prima facie* case for bringing Mozambican labor law into line with practice in the region, because:

- Mozambique is an outlier in terms of low labor absorption – hiring by the formal sector was lower than in comparable countries – despite high investment rates and vigorous value added growth;

⁸⁴ See Annex Table 22 (p. 152) for poverty rates by sector of employment of the household head. Also see a discussion of the decline of poverty in the mining sector, Table 37 (p. 96).

⁸⁵ The aggregate statistics give slightly higher elasticities, but these are contaminated because they include an unknown amount of informal sector employment also. For the record, private sector value added, excluding the megaprojects (but including an unknown amount of informal sector activity), grew at about 6 percent per annum between 1996 and 2002, the growth of urban private sector employment (including an unknown amount of informal sector activity) was between 1 percent and 2.6 percent per annum.

⁸⁶ See Benito-Spinetto and Moll (2005) for details about other countries' elasticities of employment with respect to growth.

⁸⁷ It should be noted that these surveys were of formal-sector firms that were unaffected by the restructuring of state enterprises.

⁸⁸ See the full listing in *Doing Business in 2004* at <http://rru.worldbank.org/DoingBusiness/ExploreTopics/HiringFiringWorkers/CompareAll.aspx>

⁸⁹ See Appendix Table 29 (p. 156) for the details of several countries in the region.

⁹⁰ Mozambique is the world record-holder in the amount of severance given per year of service (namely 1½ months). See table *Severance Payment* in Betcherman *et al.* (2001, p. 31).

- Mozambique is an outlier in the restrictiveness of its labor codes.
123. The case is not complete, however. There are gaps in our knowledge:
- In other countries the causation between labor market flexibility and employment growth is not always clear. The standard wisdom of the 1990s was that labor flexibility and employment growth in OECD countries⁹¹ are causally related, but some recent evidence is less than compelling.⁹² Stronger evidence of the negative effect of job security rules on employment comes from Latin America⁹³ where such rules have been tighter, making for measurable impacts. Across African countries, managers' perceptions of labor as a significant problem are related, if weakly, to firing costs as defined in law; but they do not seem to be related to the "difficulty of firing index"⁹⁴; the evidence for Africa is too scant to permit generalization.⁹⁵ This agnostic view does not mean that just any degree of labor rigidity is acceptable; it means that a country-specific investigation is needed to establish the case for increasing employment by reducing labor market rigidities.
 - Evidence is lacking as to whether restrictive labor regulation is a binding constraint in Mozambique. Some 38 percent of manufacturing business owners complained that labor regulations were a "major" or "very severe" problem (World Bank, 2003a), but other items were more serious – financing costs (84 percent), electricity (64 percent), corruption (64 percent), crime (54 percent), customs (49 percent) and so on.⁹⁶ In addition, there is as yet no objective measure of the costs involved. By implication, it is not yet possible to estimate the size of the likely increase in employment should the administrative barriers be lifted. Also, while more labor market flexibility may be a necessary condition for increasing employment, it may not be a sufficient condition.
 - There is a lack of evidence about potential losers from the process. Even if greater flexibility helped raise employment in the long term, it is possible that in

⁹¹ See Layard *et al.* (1994), OECD (1994), Nickell (1997), OECD (1999), Riboud *et al.* (2002).

⁹² See Baker *et al.* (2002).

⁹³ Guasch (1999), Heckman and Pagés (2000), Saavedra and Torero (2000), Gill *et al.* (2001), World Bank (2003e) and Kugler (2004). Betcherman *et al.* (2001, p. 7) provides an excellent review. But see Downes *et al.* (2000) who find no impact of rigidities on employment in the Caribbean.

⁹⁴ See Annex Figures 30 and 31 (p. 157) which give the detail and sources.

⁹⁵ Fallon and Lucas (1991) find that a 10 percent increase in dismissal costs in Zimbabwe increases long-term unemployment by 20 percent. No further empirical studies of the subject in poor African countries could be located. According to the RPED surveys, business people in Africa consider poor transport, red tape and power outages to be more serious than labor rigidities. As yet, there is little evidence that labor legislation reduces formal sector job creation (Fox *et al.*, 2004). Also using the RPED, Alby *et al.* (2005) find no correlation between labor market rigidity as defined in law and firms' perceptions of such rigidity as a problem. Eifert *et al.* (2005) find that Africa is a high cost region – due to poor roads, corruption, unreliable electricity, etc. – with price levels 30 percent above levels predicted on the basis on income per head. See also the congruent findings by Lindauer (1999) that regulatory reforms are likely to make only a modest difference in job creation; by Forteza and Rama (2002) that mandatory benefits did not affect growth in over 100 countries; and by ECA Labor Market Team (2004, section 5.2, p. 59) that job creation in Europe and Central Asia was affected by administrative barriers and high taxes – not labor market institutions.

⁹⁶ See a useful summary of the data at <http://rru.worldbank.org/InvestmentClimate/>.

the short and medium term some employees would be let go. What would be the size of the trade-off, and what mitigating policies could be adopted in the interim?

124. In order to investigate the likely outcomes of reform, a Poverty and Social Impact Analysis is being done jointly by the Government and the World Bank. Meanwhile, the Government is preparing a modernization of the labor law which will address the call for increased labor market flexibility.

125. There is a bright side to the growth-employment nexus. Within the manufacturing sector, the panel surveys showed that newly created firms with an export orientation tended to create more employment than older firms or firms producing for the local market. This may indicate that older firms are still restructuring and shedding workers. It could also suggest that the set of policies followed – a realistic exchange rate, reduction of tariff barriers, and other investment climate factors – have helped enhance job creation.

126. As mentioned above, the employment share of manufacturing has declined. In absolute numbers, employment in the sector was some 120,000 in 1996/7, falling to some 50,000 in 2002/3. By employer type, 55 percent of these (66,000) were employed in the private sector, the public sector, or government in 1996/7, and 62 percent (31,000) in 2002/3. The latter category can be taken as a proxy for the formal sector portion of manufacturing. The decline of more than half arose from two sources: (a) the closure and privatization of erstwhile state enterprises in the mid- and late 1990s resulted in job losses, and (b) among the surviving – and growing – firms, employment growth was low.

127. Employment shifts are consistent with theoretical predictions, as noted above. Table 22 shows average annual employment growth rates, value added growth rates and value added per unit of labor growth rates by four sectors, i.e. agriculture (including fishery), industry, private services (transport, trade, services) and public services (education, health, public administration). This table shows that labor has shifted out of the slower-growing agricultural sector into the faster-growing service sector. Not surprisingly, aggregate labor productivity improved in agriculture and fell in the sectors where employment expanded. It also improved in industry as a result of the restructuring.

Table 22. Average annual growth rates, employment and value added, by sector, 1996/7 to 2002/3

	Avg. annual growth of employment	Avg. annual growth of GDP at factor cost	Avg. annual growth of GDP / employment
Agriculture	-1.15 %	5.11 %	6.33 %
Industry	-1.10 %	16.43 %	17.72 %
Services (private)	16.47 %	5.69 %	-9.26 %
Services (public)	8.81 %	7.41 %	-1.29 %

Source: Fox *et al.* (2005). Employment data from the IAFs. GDP from INE.

128. Wages in the private formal sector increased only slightly, by about 1.6 percent a year in real terms between 2000 and 2003, less than consumption growth of 2.7 percent for the same period, and well short of GDP growth of 7.3 percent.

129. Expected developments in the urban labor market in the next ten years give little room for cheer. The working age population (ages 15-64) will increase by at least 2.4 percent per annum between 2005 and 2015 (Table 1, p. 2). With rural-urban migration, the *urban* working age population rises at a higher rate, possibly as much as 4.1 percent per annum. Meanwhile, at best formal sector wage employment may increase at 1.5 percent per annum. The substantial gap between growth of the urban working population and employment implies both that the informal sector will continue to expand and that formal sector wage levels (other than in public employment) are likely to stagnate.

130. *There are prominent gender differences in employment.* The majority of those in the labor force are self-employed or working in a family business. Men are more likely to be wage earners or self employed, and women are more likely to be working in a family business, particularly in agriculture, transport, trade and services.⁹⁷ Women are found more often in agriculture, men in the traditionally male-dominated sectors of manufacturing, construction, transport and public administration.⁹⁸ Both men and women are found in trade.

131. *Factors that influence wage levels* include education, marital status, and gender. This emerges from a regression analysis of the 16 percent of workers who are waged.⁹⁹ The labor market penalty for being female is 28 percent. When women's and men's wages are analyzed separately, the structure is different but only the coefficients on education, contract type and the construction sector dummy were significantly different by gender. Marriage confers a premium for men but not for women. Returns to education also differ between men and women after primary school, but in this case, women's returns are higher. As in the consumption regressions, the payoffs to education are convex, but given the low numbers who are able to complete any kind of post-secondary education, it is possible that these coefficients simply reflect the selectivity bias of those who are able to go to schools rather than any effect of education *per se*. Being a casual laborer rather than having a regular job seems much more disadvantageous for women.

132. *Rural self-employment and rural wage employment provide roads out of poverty.* Further regression work has been done using agricultural household data sets (the TIA of 2002) to examine the determinants of self-employment in rural areas, and the determinants of rural labor market access and wage levels. The econometric work is listed in Perumalpillai-Essex and Loening (2005, Tables 19 and 20) and need not be repeated here. The key conclusions are these:

- (a) Factors increasing the probability of *self-employment* include having a bicycle and the presence of all-weather road access. Low education is not a barrier to self-employment, but females are significantly disadvantaged. Once having entered into the labor market, land ownership, access to credit and education are important determinants of self-employment income. Education in the rural self-employment sector has a rate of return of about 10.8 percent.

⁹⁷ See the detailed breakdowns of employment by type of contract and gender, in Annex Tables 25 (p. 154) to 27 (p. 155).

⁹⁸ Detailed data on employment by sector and by gender are given in Annex Table 24 (p. 153).

⁹⁹ See the detailed regressions in Annex Table 32 (p. 158).

- (b) Education, infrastructure (roads) and market access¹⁰⁰ increases the probability for generating *rural wage income*. Once having entered into the labor market, education and market access become key factors in explaining rural earnings. Education has here a rate of return of 14.8 percent.

In sum, rural self-employment and rural wage employment appear to offer a route out of poverty. However, there is evidence that higher income non-farm jobs go to those with higher levels of education and that women are discriminated in the non-farm labor market. An important component of a comprehensive strategy for the development of rural areas and alleviation of rural poverty will be to deepen and extend the relationship with non-agricultural activities within rural areas. Non-farm employment income can expand only if the regional economies are diversified into year-round activities, including agro-processing, services, and manufacturing. A major limitation on such diversification is the lack of adequate infrastructure.

D. CONCLUSIONS

133. Poverty declined, measured by both monetary and non-monetary measures. Progress in reducing monetary poverty was substantial, as reflected in the headcount as well as measures of depth and severity, but it showed regionally unevenness. The most progress was recorded in the Center, with less progress in the North.
134. Non-monetary measures also show improvement – ownership of durables jumped, the share of food in total expenditures fell for all quintiles, and many households living below the poverty line were able to improve their houses. Access to a safe water source and a latrine or other sanitation facility improved. School enrollments are up as well in all quintiles, although the poorest still lag. With respect to distance to services (health and education) a gap exists between the top quintile and the other quintiles, except for distance to primary schools, which appears to be equal in all quintiles. So there is scope to improve access to services for the lower quintiles.
135. One key reason for the good poverty performance is that inequality did not change much, so aggregate growth in consumption reached poor households. Overall, household consumption per adult equivalent grew by 4.6 percent per annum per adult equivalent, a very healthy rate, and the lowest quintile in rural areas seems to have had the fastest growth. Thus the modest increase in inequality only reduced the national poverty performance by 8 percent. In all regions, the strong growth in consumption registered by agricultural households drives most of the poverty performance. However, the shift of households out of agriculture as the main source of income into other sectors also helps.
136. The poor in Mozambique are mostly rural, with larger households and more dependents. They are slightly more likely to report that an adult member of the household is disabled. Overall, more heads are reporting that they are divorced and/or are female in the 2002/3 data, but this feature does not seem to correlate with monetary welfare. Education of head does rise monotonically with consumption per capita, but even more noteworthy is the sharp rise in education of heads in all quintiles. In terms of

¹⁰⁰ The relevant variable is a dummy for “market in the village”.

sector of activity, many heads of poor households have diversified into trading and other private services.

137. Multivariate techniques indicate that the most important determinant of household consumption per capita is education of head. This is more important in urban than rural areas, but even in rural areas, education has a high positive marginal effect on consumption. Controlling for education, working in transport, trade, or health increases household consumption on the margin by about 30 percent. In urban areas, working as a teacher decreases consumption relative to nearly all other sectors, suggesting that there may be a problem with teacher salaries in urban areas.

138. Household demographic characteristics has a lesser effect on consumption, and for the most part the estimated negative effects of children and disabled adults were similar in rural and urban areas. Noteworthy is the difference that in urban areas, widowhood has a strong negative effect for both male and female headed households.

139. Mozambicans' livelihood strategy is to have a portfolio of household activities. Most households have at least two earners with agriculture as a primary or secondary activity, and with agriculture usually done by women (90 percent work in agriculture), and often by men as well. In rural areas, subsistence agriculture provides about half of total income, with the rest coming primarily from sales of agricultural products and employment income. In urban areas, the majority of household income comes from employment, followed by self employment. The fastest growing sectors of employment were trade and private services, as labor moved out of agriculture and into these areas. As a result, the absolute size of the agricultural labor force fell, and labor productivity increased. This probably contributed to the strong poverty reduction performance in rural areas. Men are over three times as likely as women to be in wage employment, and 1.5 times as likely to be in self-employment. Only 16 percent of the total labor force receives a wage, either as a casual worker or a salaried employee. Most women work in either subsistence agriculture for home consumption, or in a family business.

140. Women in wage employment earn on average 28 percent less than their male counterparts. At higher levels of education, women are actually rewarded better than men, but men and women are rewarded differently by sector – men earn more in agriculture, mining and transport. It is not clear to what extent these differences reflect discrimination or unobservable differences in job content (e.g. mining), hours worked, or quality of effort.

CHAPTER 4. PRIVATE SECTOR DEVELOPMENT: PRIORITIZATION AND SEQUENCING

A. INTRODUCTION

141. As remarked in Chapter 2, Mozambique has been successful at attracting foreign direct investment in large scale projects known as “mega-projects” to exploit its mineral and energy resources. This has helped fuel remarkably high real GDP growth rates. But since the employment impact of these investments is limited, private sector-led growth in Mozambique will call for the broadening of the base for growth, particularly through more rapid development of small and medium enterprises.

142. A great deal of valuable research has already gone into this important subject.¹⁰¹ Gargantuan action matrices have been assembled. The contribution of this Memorandum is not to rework this terrain but to arrive at a workable synthesis and prioritization of the many disparate recommendations arising from these efforts. Thus this chapter is not the all-encompassing review of all private sector- and business-related policies found in many Country Economic Memoranda; instead it focuses on a small number of key administrative barriers to growth. First, a brief description of the private sector in Mozambique is given. Then the criteria for selection of priority policy areas are discussed, and then the eight items selected are described in detail. In addition, Box 1 (p. 51) summarizes the main findings of the contemporaneous *Growth and competitiveness* study (World Bank, 2005c), so that these are not repeated in this chapter.

B. THE PRIVATE SECTOR: A DESCRIPTION

143. The largest body of private sector operators, and by far, are the three million-odd smallholder households. Much that is recommended in this Chapter is likely to benefit this group, particularly the recommendations on trade facilitation (see below, p. 51) as this would likely reduce the transaction costs for export and result in higher farmgate prices. To avoid repetition, however, the reader is referred here to the substantial parts on agriculture (Chapter 2, p. 17 and Chapter 6, p. 110) and on rural land (Chapter 5, p. 72).

144. The second-largest body of private sector operators comprises the informal sector in the towns. This can be inferred from the categories “self-employment”, “family labor” and “employer” in Annex Table 3 (p. 137) which sum to 60 percent of urban employment in 1996/7, rising to 76 percent in 2002/3. The implied growth of informal sector employment was between 7 and 8 percent depending on the assumption about urban population growth. (Remarkably, “employers” increased from 1.0 percent of the urban

¹⁰¹ Some recent examples include: (i) *The Investment Climate Assessment* (World Bank, 2003a); (ii) *Doing Business in 2004: Understanding Regulation* (The World Bank and IFC, October 2003); (iii) Biggs and Fisman (1999); (iv) da Silva *et al.* (2002), (v) FIAS (2001); (vi) Nathan Associates (2002); (vii) Booz Allen Hamilton (2002); (viii) Mwangi and De Wulf (2003), and (ix) *Matrices to the Seventh Private Sector Conference* (Mozambique, March 2003).

labor force in 1996/7 to 10 percent in 2002/3, reflecting the growth of small businesses, probably most of it informal.)

145. Our knowledge of the informal sector is extremely limited due to the absence of specialized surveys. Data difficulties obstruct the drawing of inferences about changes in earning levels in the informal sector.¹⁰² As the sector is going to play an increasingly important role in the future it will be essential, for policy-making purposes in the fields of education, health, small business promotion and poverty reduction, to conduct regular surveys of informal sector businesses, particularly in the urban areas.

146. The third-largest subset of the private sector is the so-called formal sector. Most of the ensuing discussion is focused on this sector. As has been seen in Chapter 2 (p. 14), the biggest sectoral shares in GDP are those of commerce (22 percent), followed by agriculture (19 percent), manufacturing, construction and transport & communications. Growth of value added was fairly strong in most sectors – 5 percent per annum in commerce, 5.5 in agriculture, 18 (10) in manufacturing including (excluding) the mega-projects, and 9 percent in transport & communications. As has been discussed, the biggest contributor to GDP *growth* was agriculture, followed by mega-projects in manufacturing, and then commerce, construction and transport & communications. In 2002 there were 31,735 private sector firms¹⁰³ employing 310,000 people (INE 2002). Of these 396 firms (1.4 percent) were “large”, employing over 100 people, 9.1 percent were “medium” (10-99 employees) and the rest were “small” (1-9 employees).

147. Mozambique has established itself as one of the leading recipients of direct foreign investment (DFI) in the region. The main sources of DFI were South Africa (about 28 percent), the UK (22 percent), and Portugal (19 percent), followed by Japan, the United States and Mauritius (United Nations, 2001). The key sector involved was manufacturing, followed by agriculture/forestry/fisheries and tourism. The majority of investments in manufacturing were directed at the local market, mainly in food & beverages and construction. DFI increased sharply in the late 1990s as “mega-projects” – initially aluminium processing, later mining – were set up; this was discussed in Chapter 2 (p. 23).

148. A weakness that was remarked on above is the poor export capability of Mozambican firms. Although exports rose sharply after 1998, most of this was due to the mega-projects; the export performance of the remaining firms has been weak, and only 7 percent of all output of manufacturing firms is exported (World Bank, 2003a). Moreover, the weak local private sector has not been able to take advantage of opportunities in the domestic market. Owing to unfavorable investment climate conditions and economic inefficiencies, the range and quality of services and products remains narrow, while prices tend to be high in comparison to Mozambique’s neighbors. Not surprisingly, Mozambican consumers purchase a substantial amount of goods and services in the South African town of Nelspruit near the Mozambican border.

149. The *Investment Climate Assessment* (World Bank, 2003a) and the contemporaneous work on value chain analysis (World Bank, 2005c) show that this lack of competitiveness is partly due to investment climate constraints. In particular, the cost

¹⁰² See Benito and Moll (2005, para., 56, p.22) for a discussion of this issue.

¹⁰³ Excluding non-profits and government.

and quality of infrastructure services, including electricity and transportation, impact directly on manufacturing costs of production, and the high cost of capital, coupled with high collateral requirements, makes it costly to produce goods and services.

150. How can the reforms proposed in this chapter be expected to impact on poverty? A disclaimer must first be given. The objective of this chapter was not to investigate the impact on poverty of private sector development but to arrive at an ordering of actions to facilitate development. To evaluate empirically the impact of these actions on poverty would require unusually rich data sets and a large computable general equilibrium model. Nevertheless some pointers can be given here.

151. First, it will be many years before the expansion of formal private sector employment will have a *direct* impact on poverty, that is, by the formal sector's drawing in laborers from households previously classified as "poor". This is simply because the formal sector is as yet a small fraction of overall employment, and the workers first in line are likely to be better educated, urban, and experienced. This can be seen in Table 23 which shows employment status of the labor force, categorized by the quintile of consumption of the worker concerned. The better-waged formal sector comprises, mainly, people in the top two quartiles in urban areas, who numbered 11 percent of the quintiles in 1996/7, increasing to 12-13 percent in 2002/3. (People below the third quintile are below the poverty line, and their wage levels are consistent with informal sector activities.) The point is that as the formal sector grows, it is likely to draw labor not from the lowest quintiles of self-employed and non-private waged work but from the upper two quintiles, which workers are already above the consumption-based poverty line.

Table 23. Employment status by consumption quintile and location, 1996/7 and 2002/3

	Urban					Rural				
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5
1996/7 employment status:	<i>percentage</i>					<i>percentage</i>				
Self-employed	86	79	75	69	63	96	96	96	86	95
Wage non-private	10	13	14	20	26	2	2	2	2	3
Wage private sector	4	8	11	11	11	2	2	2	2	2
Total	100	100	100	100	100	100	100	100	100	100
2002/3 employment status:	<i>percentage</i>					<i>percentage</i>				
Self-employed	76	73	74	68	56	95	97	97	96	93
Wage non-private	16	18	16	20	31	2	2	2	3	5
Wage private sector	8	9	10	12	13	3	1	1	1	2
Total	100	100	100	100	100	100	100	100	100	100

Source: Computations underlying Fox *et al.* (2005), using microdata of the household surveys. Weighted averages; for all individuals between age 15 and 59. Q1 is the poorest consumption quintile, and Q5 the richest.

152. Formal sector expansion will, in addition, have indirect impacts and in the short term these are more important. As workers are drawn into the formal sector from the upper quintiles of self-employed and non-private occupations, they will in turn be replaced by workers from lower quintiles; this is nothing other than the standard "ripple effect". Furthermore, as more workers earn better wages in the formal sector, they and

the firms they work for will demand more services, some of which are drawn from the self-employed and informal sectors – food and beverages, transport, domestic service, and the like.

153. Some specific pointers may also be given about the poverty impact of the measures contemplated below. Trade facilitation is intended to assist in exportation of all kinds, and as noted above, would probably lead to better farmgate prices, and more employment in labor-intensive industry. The other measures, and in particular improving access to energy and improving access to finance, are likely to improve the health of the private sector in general, and hence result in the indirect effects on poverty identified above: the ripple effect of employment and increases in demand for services.

C. CRITERIA FOR ESTABLISHING THE PRIORITIZATION

154. There is a need to focus the scarce resources of the private and public sectors on removing barriers that are binding and can be relatively easily removed, and will contribute to time and cost savings in doing business in Mozambique, while enhancing the attractiveness of Mozambique as an investment destination for small, medium, and large scale investments. One guide to what is “binding” is given by manufacturing firms’ opinions (Table 24). The *cost of financing* is considered the biggest barrier, and while this measure is hardly objective – what businessperson would not prefer cheap money? – the measure is a meaningful one in the “investment climate” context, for in other countries with no big banking sector problems, this measure is rated low (the cross-country average is 38 percent). Hence this factor is included in the “short list”.

Table 24. Firms’ perceptions of “major” or “severe” obstacles to business, 2001

-- percentage of firms rating the obstacle as “major” or “severe” --			
Cost of financing	84	Tax rates	55
Electricity	64	Crime, theft and disorder	54
Corruption	64	Customs and trade regulations	49
Macroeconomic instability	63	Tax administration	47
Anti-competitive or informal practices	60	Labor regulations	38
Economic and regulatory policy uncertainty	58	Skills and education of available workers	34
		Business licences and operating permits	28
		Transportation	27
		Access to land	27
		Telecommunications	21

Source: World Bank (2003a), summarized at <http://rru.worldbank.org/InvestmentClimate/>

155. Electricity was rated at 64 percent and so is discussed below. Corruption (64 percent) is next. This, together with the other governance measures – “anti-competitive or informal practices” (60 percent), and “crime, theft and disorder” (54 percent) – are not treated in general in this Memorandum as they are specialized topics, but one important component, namely the difficulty of contract enforcement, is discussed below. Macroeconomic instability (63 percent) has been discussed in Chapter 2. Tax rates (55

percent) are discounted because in fact Mozambique's tax rates are, on the whole, (too) low, as discussed in Chapter 2. Customs and trade regulations (49 percent) are discussed below under the rubric of "trade facilitation". So the four items pinpointed – the cost of finance, electricity, trade facilitation, and contract enforcement – form the core of the prioritization.

156. In addition, there are some "quick wins" that can be made. These will not necessarily make the biggest impact on investment or growth, but they can be achieved fairly quickly and at low cost, and would help to build goodwill between the government and the business community. They are: accelerating business registration, adopting a new Commercial Code, accelerating value added tax refunds and reducing the cost of inspections and fines while improving compliance.

A sequencing of actions to achieve these aims is presented in Table 28, p. 68.

BOX 1. SUMMARY OF *GROWTH AND COMPETITIVENESS*

This paper (World Bank, 2005c) uses detailed value chain analyses of cotton-to-garments industry, wood processing and tropical fruits (banana and mango).

In the cotton-and-garments industry, the two main issues that impacted the entire supply chain are the cost of transport and the low labor productivity and technical skills. The cost of transport dominates many portions of the value chain as the lack of a north-south transport corridor forces alternative routing and results in higher transport costs and longer durations. A north-south transportation corridor needs to be developed. Labor productivity in the production of T-shirts is 10-11 items per day, compared with Kenya's 20-24. Targeted subsidies for an ambitious program of skills upgrading could help stimulate investment. Public-private partnerships in skills development may be a useful vehicle.

In the wood-processing chain, cumbersome steps and fees plague the export process which makes up 27 percent of value added between forest and mill. Barriers (such as the lack of organized information on forest resources) could be reduced by computer-based tracking for forest resources, a transparent management system for the concession approval process, and clearly written guidelines for potential concessionaires.

In the tropical fruits value chain, the main recommendation are that all stakeholders should club together to organize cable systems (bananas) and to set up a regional agrochemical buying strategy for cheaper, bulk prices.

D. IMPROVING ACCESS TO FINANCE AND REDUCING ITS COST

157. The cost of finance is the most serious constraint to the development of the Mozambican private sector. Interest rate spreads are high (reaching 19 percentage points in 2002, falling to 12-15 percent in 2005), and real interest rates are high and volatile (16 percent in 2002, 15.5 percent in 2005). As of the time of the Investment Climate Assessment surveys, Mozambique's real interest rates were higher than those of countries

at similar levels of development which averaged 9.4 percent (Figure 5).¹⁰⁴ A decomposition of bank spreads reveals that 44 percent of Mozambique's bank spreads are explained by loan-loss provisions and 35 percent by high overhead costs.

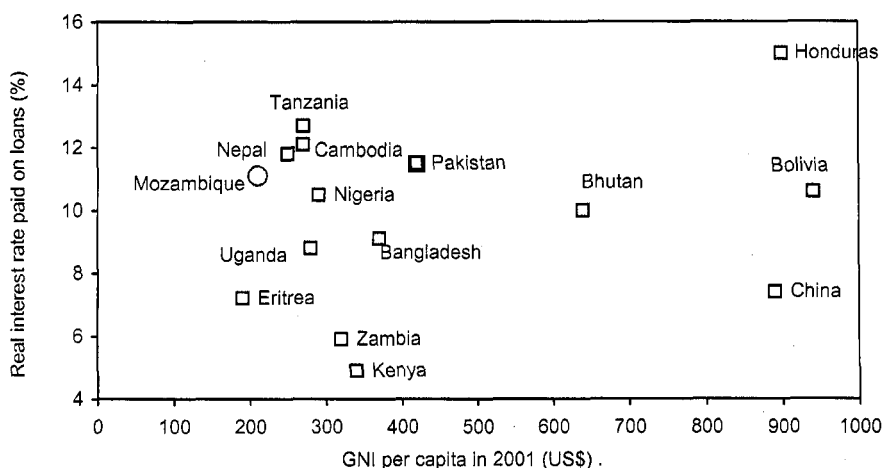


Figure 5. Real interest rates paid by manufacturing firms – intercountry comparison¹⁰⁵

158. Given the high cost of finance, most Mozambican enterprises rely on their own resources for investment and working capital. Only 29 percent of firms have bank loans. In this regard there is plenty of room for improvement; there are several countries at about Mozambique's level of per capita income with much better access to bank loans, e.g. Eritrea with 45 percent.¹⁰⁶ Only 12 percent of Mozambican manufacturing firms have overdraft facilities, less than the nine African countries surveyed whose average was 43 percent.¹⁰⁷ In Mozambique, some 13 percent of new investment is bank-financed, less than the Africa average of 21 percent. Smaller firms face greater barriers in obtaining external financing due to high transaction costs related to problems of information, communications and enforcement. Credit is of short duration, on average 35 months, insufficient for new investment. Collateral requirements are stringent, averaging 141 percent of the loan amount, which is higher than in most countries at a similar level of development.^{108 109} It is small wonder that, as shown in the *Investment Climate*

¹⁰⁴ Data source: Investment Climate Assessments, at <http://rru.worldbank.org/InvestmentClimate/>. Note that Mozambique's GNI and GDP per capita have increased since the time of these surveys.

¹⁰⁵ Sources: Investment Climate Assessments and associated Excel tables, at <http://rru.worldbank.org/InvestmentClimate/>. The real interest rate is the average of the nominal rates paid by the full sample of ICA survey firms, less the consumer inflation rate for the relevant year (between 1999 and 2003).

¹⁰⁶ See a graph of loan access by manufacturing firms, by gross national income per capita: Annex Figure 34 (p. 160).

¹⁰⁷ See <http://rru.worldbank.org/InvestmentClimate/ExploreTopics/Finance.aspx>.

¹⁰⁸ See Annex Figure 36 (p. 161) for an intercountry comparison of collateral required.

Assessment (World Bank 2003a), the lack of access to and the high cost of finance was cited by 78 percent of firms as a severe problem to their operations and growth.

159. *Recommendations.* In order to remedy this situation and stimulate the commercial banks in making sound new credits in the difficult Mozambican lending environment, immediate and medium-term policy reforms will need to be adopted. Based on the recommendations of the Financial Sector Assessment (FSAP) findings, the main areas of focus are as follows.

160. *Strengthening banking supervision.* Some progress has taken place in this area over the past two years, but much work remains. As most Mozambican banks are foreign-owned, the Banking Supervision Department needs to establish regular communication with the head offices of the foreign banks, and the banking supervisors in their countries of domicile. The current loan classification and loan loss provisioning systems need to be brought in line with international practices.

161. *Enhancing the scope of financial intermediation.* In order to stimulate the commercial banks in making sound new credits in the difficult Mozambican lending environment, several short- and long-term actions would need to be undertaken.

- The establishment of a commercial court, dealing with the largest cases.
- Simplification of judicial procedure. This is particularly important, given the lack of a trained judiciary.
- The enhancement of the scope and reliability of the credit registry administered by the Bank of Mozambique.
- The reform of the land registry and the establishment of a registry for movable property.

162. *Monetary and debt management.* Although the sharp tightening of monetary policy that took place in mid-2001 appears to have been effective in stabilizing prices and the exchange rate, it contributed to the high level and volatility of interest rates mentioned above. In order to reduce volatility of prices and interest rates and enhance the scope for local currency intermediation – thereby limiting financial dollarization – the Banco de Moçambique needs to pursue more transparent, pro-active (yet smoother), forward-looking, monetary management.

163. To achieve this goal, the current *monetary framework* needs strengthening. Market participants apparently do not fully understand the goals or procedures of monetary policy. This partly reflects insufficient efforts by the Banco de Moçambique (BM) to communicate and explain its goals and operating procedures, as well as flaws in the design and operation of its monetary instruments that send conflicting signals on the Government's stance on monetary policy. Acting preemptively to limit deviations from monetary policy objectives will also require a strengthening of BM's analytical capacity and a greater emphasis on inflation targets and developments. At the same time, it is important to rely more closely on an intermediate monetary target. To enhance transparency and avoid interfering with market signals, BM may need to conduct its

¹⁰⁹ Mozambique's level of credit relative to GDP, at 18 percent, has much room for improvement, but is not particularly low given its level of income -- see Annex Figure 34 (p. 158).

monetary operations in the overnight money market.¹¹⁰ Additionally, adequate care needs to be exercised to reduce the significant crowding out of private borrowing by Government borrowing.

164. The *capital market* in Mozambique is small and offers a limited scope for development in the short term. At this stage, the first objective should be to develop the market for public securities, thereby providing a market-driven benchmark for the issuance of private securities. The current capital controls will need to be reviewed to ensure that they do not unduly restrict regional integration and the movement of capital across the region.

165. *Microfinance industry.* Improving access to finance for micro enterprises would also contribute to lessening the constraint imposed by the high cost of capital in Mozambique. The microfinance industry has grown rapidly in recent years, but still has a small outreach, with a high concentration in Maputo. There are good prospects for its development in Mozambique and several best performing micro finance institutions are already in partnership with well-renowned, international microfinance service providers. However, important bottlenecks need to be eliminated, such as the lack of human resources.¹¹¹ Mozambican micro finance institutions could also strengthen their cooperation with well-known international NGOs.

E. IMPROVING ACCESS TO AND QUALITY OF ENERGY

166. Electricity is the most serious infrastructure problem for the Mozambican manufacturing sector, with nearly 64 percent of firms ranking it as a major or severe problem. Power outages and oscillation of the voltage has led to the loss of equipment. As capacity utilization increases, and firms begin to engage in continuous production, an erratic power supply will become an ever-increasing constraint. The *Investment Climate Assessment* (World Bank, 2003a) reported that firms suffered 17.5 power outages per month, or on 193 days in the year, well above the nine African countries surveyed whose average was 77 days.¹¹² Outside Maputo it is more acute: in the Center and the North, average monthly power outages were 30 and 29, respectively. A study of cotton ginneries found that power outages reduced the 81-day season by five days and forced ginneries to install generators, whence the cost of electricity is \$0.085/Kwh, as opposed to \$0.035/Kwh on the grid (World Bank, 2005c, p. iv).

167. Residential consumers also face inadequate services. Only 220,000 households (some 6 percent of all households) had access to electricity. An additional 50,000 connections are targeted for 2005. Since an additional 100,000 households will be established during that period, this means that the low electrification rate will slightly decrease. This is explained by the inadequate performance of the state-owned, vertically

¹¹⁰ *Repo* arrangements are programmed to start in 2006, permitting reliance on short-term (overnight to 7 day) intervention.

¹¹¹ The new Decree 57/2004 provides for microfinance companies, including microbanks which can take deposits. There are now no discriminatory restrictions on microfinance companies, provided that they satisfy the minimum capital requirements laid out in the Aviso 4/2005.

¹¹² See the cross-country data at <http://rru.worldbank.org/InvestmentClimate/>.

integrated electricity company, *Electricidade de Moçambique*, as well as by the lack of periodic tariff adjustments for prolonged periods, so that the sector is unable to generate the necessary revenues for investment.

168. The Government of Mozambique is well aware that the lack of adequate infrastructure, including electricity access and quality, is a constraint on economic growth. Its short-term response is to establish the “Beluluane Industrial Park-Free Zone” (BIP-FZ) some 50 kilometers from Maputo, occupying 646 hectares. The works will be completed by end-2005. Useful though it is, this approach is limited in scope, and a more systematic solution is needed.

169. *Recommendations.* In order to improve the access and the quality of energy supplied to residential and industrial users, and given that most issues in the provision of electricity are related to the lack of investment and concern distribution and supply, it would be important for the authorities to consider focusing the reform underway on this aspect of the business during the first phase of the reform. This will help *Electricidade de Moçambique* improve its efficiency by: (i) intensifying connections where the backbone supply lines are already in place, and (ii) preparing for a private/public partnership, which should be in place by the end of this phase. The latter will enable the Government to leverage additional funding for further intensifying connections and rehabilitating and reinforcing the network, while (iii) taking advantage of a concessionary aid scheme for otherwise non-commercial rural electrification. This third element will help mitigate the negative impact of rural electrification on *Electricidade de Moçambique*'s financial performance and help address the issue of affordability and accessibility of services for low-income people as well as for areas where there is a low population density.

170. In addition to these changes at the distribution level, the advantages and disadvantages of unbundling of *Electricidade de Moçambique* and creating a separate corporate transmission entity to provide transmission assets and perform system operations would need to be assessed, so as to determine whether this approach would contribute to improving the system's overall efficiency.

171. To be effective, these improvements will need to be coupled with enhanced financial, and operational performance at *Electricidade de Moçambique*. To that end, the level of energy losses, which is at more than 20 percent, will need to be brought to a more reasonable level. Since unavoidable technical losses are estimated at 8 to 10 percent, there is still room for improvement. Additionally, the ratio of payroll to operating expenses also needs to be brought down to international standards, while accounts receivable, which have deteriorated to 147 days, need to be improved.

172. Consumer services also needs to improve drastically. Pre-paid services, which were recently introduced, could be expanded as a means of improving revenue collection and customer services. This would particularly true if 24-hour automatic vending machines were installed to increase customer access to vending points. *Electricidade de Moçambique* could also launch a comprehensive Guide Book for its customers in order to provide them with all relevant consumer-related information. Finally, better management and proper customer notification prior to power outages will also improve customer satisfaction and help firms plan and manage their production process.

173. These changes at the operational level will need to be coupled with an institutional and legal reform that will aim at establishing the enabling environment that

is conducive to the sector's development. In particular, it is important that an adequate regulatory capacity be established, within a transparent environment that will allow the establishment and periodic review and adjustment of tariffs. This enabling environment will also help protect the rights of consumers as well as promote renewable energy sources, which could contribute to productivity gains. In so doing, adequate analysis will need to be carried out to determine the advantages and disadvantages of establishing one or more Multi Sector Regulatory Agency as a mechanism for achieving the desired cost effectiveness and harmonization across sectors. This would include comparisons with alternative mechanisms for achieving the same objectives.

F. FACILITATING TRADE

174. *Introduction and overview.* Rapid expansion of exports has been the main source of growth during the past ten years in Mozambique. Since the early 1990s, exports have expanded at 10 percent annually, much faster than world exports (6 percent). As a result, Mozambique's exports-to-GDP ratio has doubled. Mozambique has thus become one of the few countries in Africa that has seen an increase in its share in world exports. This rapid export expansion was led by private initiative, both national and foreign.

175. The export-led growth was induced by moderate improvement in the trade regime, investment climate, and business environment. The strong response of exports to these limited improvements in policy environment is a good indication that the private sector is responsive to changes in the incentive system. Given its excellent natural resource base, its low wages, and favorable location, Mozambique has the potential to maintain its current growth rate. Sustaining this growth rate will require a higher level of broad-based investments, in addition to the large-scale projects that generate relatively fewer direct and indirect jobs, compared to labor-intensive manufactured exports. Furthermore, in order to sustain broad-based growth, there is a need to increase the development of linkages between the mega-projects and local small and medium enterprises.

176. As in many other countries, for Mozambique, a private sector-led, export-based growth strategy represents the best long-term potential to sustain a high growth rate in light of the existing conditions: the domestic market is limited, and has a relatively low purchasing power. Additionally, given that the national saving rate is not high enough to generate adequate growth to make a marked impact on poverty, a particular emphasis needs to be placed on attracting foreign direct investment.

Trade performance

177. Mozambique's export performance has been strong, growing at 22 percent annually in US dollar terms between 1996 and 2003 (Table 25).¹¹³ Export earnings have risen from 6 percent of GDP in 1998 to 20 percent in 2003. Most of this expansion was due to three mega-projects: Cahora Bassa electricity, the Mozal aluminium smelter, and the SASOL natural gas pipeline. This expansion is substantially faster than that of world

¹¹³ See also more detailed macroeconomic variables, including trade variables, in Annex Table 1, p. 135.

exports of about 6 percent. As a result, Mozambique is one of the rare countries in Africa whose share in world exports has risen.

178. The “traditional” export base, on the other hand, is still weak and poorly diversified, having grown at only 2.3 percent between 1996 and 2003.¹¹⁴ Traditional exports are concentrated in a few agricultural products—prawns, cotton, timber, raw cashew nuts, and sugar. In particular, clothing and footwear showed barely no increase: these exports were \$5.8 million in 1999, and stood at \$6.0 million in 2002. The trade liberalization has apparently not helped this sector to grow, despite the benefits of the Africa Growth and Opportunity Act (AGOA) and other trade preferences. Given the importance of labor-intensive export growth for economic development, these discouraging figures put in relief the critical need for further reforms in the business environment.

Table 25. Exports by main category

	1990	1996 ^a	2000	2003	Ann. growth '96-'03
	U S \$ m i l l i o n s				percent
Exports (f.o.b.) ^b	126	226	360	896	22
Megaprojects	0.0	0.0	127	681	n.a.
Traditional exports	126	226	233	363	2.3
Prawn	43	70	69	76	7.1
Cashews (raw and nuts)	14	47	28	29	5.2
Sugar	7.9	13	5.2	19	-7.4
Fishery products	3.9	9.0	8.9	16	8.6
Timber	1.5	9.8	8.8	20	1.7
Miscellaneous	55	78	113	203	-6.2

Sources: Live Data Base, in turn from Mozambican authorities, World Bank staff estimates and IMF.
^a 1995 was not selected because exports were unusually low in that year.

179. Imports have grown *pari passu* with exports. Imports amounted to US\$ 245 million in 1998, and rose to over US\$ 1.2 billion by 2004 (see Annex Table 1, p. 135), or 26 percent of GDP. A good part of the increase was generated by the mega-projects, particularly during their construction phases.¹¹⁵ Remaining imports also grew, however, by about 7 percent per year, in pace with GDP growth. The imports of textile and clothing products in 2002 (\$20 million¹¹⁶) far exceeded exports by the sector (\$6 million).

180. *Direction of trade.* On the export side, the EU accounts for about 61 percent of export earnings (Toyoshima and Yoshino, 2004). The share of the EU is rising because of its absorption of aluminium. South Africa accounts for 18 percent of Mozambique's exports (Table 26). Zimbabwe accounted for 20 percent in 1998 but this had fallen to 6

¹¹⁴ Unrecorded exports, particularly to Malawi, may have grown faster, although no time-series data are available. See Macamo (1999).

¹¹⁵ The impact of MOZAL may be seen in Annex Table 33 (p. 159): alumina imports (the rubric “other metals”, which skyrockets in 2001), transportation equipment (which rises in 1999) and machinery.

¹¹⁶ See the table of commodity composition of imports, in Annex Table 33 (p. 159).

percent by 2002. Malawi takes \$10 million of Mozambique's exports, and the other countries in the region each take less than this (DTIS, p. 1-25).

Table 26. Exports by country of destination, 1998-2002 (in percent of total exports)

	1998	1999	2000	2001	2002
OECD countries	37.8	37.3	39.6	14.8	51.6
Japan	4.8	4.3	4.3	4.2	0.7
Netherlands	2.3	1.7	1.0	1.0	0.3
Portugal	7.6	9.0	11.6	4.0	4.4
Spain	13.0	12.7	10.7	3.8	2.8
United Kingdom	1.4	1.0	0.9	0.0	0.1
United States	5.7	4.7	4.7	0.98	1.6
Other	3.0	3.9	6.4	0.8	41.8^a
Other countries	62.2	62.7	60.4	85.2	48.4
South Africa	17.6	26.2	14.6	15.3	17.7
Zimbabwe	19.5	14.9	17.7	5.3	5.8
Other	25.1	21.7	28.1	64.6^a	24.9
Total	100	100	100	100	100
<i>Memorandum item</i>					
Total exports (US\$ millions)	245	284	364	703	682

Sources: Mozambican authorities; and IMF, *Direction of Trade Statistics*. Quoted from Meeuws (2004, Table 7).
^a Bolded numbers refer to figures that include exports of aluminium to the EU. The statistics do not permit a disaggregation.

181. On the import side – see Table 27 – a new element is that the European Union (EU) has become the most important partner for Mozambique (over 50 percent), even though this does not emerge very clearly in the data available (the EU is included under 'Other' in 'Other countries'). Correspondingly, South Africa used to be Mozambique's main supplier (57 percent in 1999), but its role had declined to some 30 percent of imports by 2002.

Table 27. Imports by country of origin, 1998-2002 (in percent of imports)

	1998	1999	2000	2001	2002
OECD countries	31.9	27.2	28.6	20.9	22.2
France	2.1	0.9	2.2	1.1	1.7
Japan	3.9	3.9	4.6	0.6	3.4
Netherlands	0.8	0.7	0.5	0.9	0.5
Portugal	7.9	5.6	7.6	8.4	6.2
United Kingdom	2.0	0.9	1.6	1.1	1.0
United States	5.3	6.7	3.5	1.8	4.4
Other	9.9	8.5	8.6	7.9	5.0
Other countries	68.1	72.8	71.4	79.1	77.8
South Africa	39.5	57.2	49.8	40.7	30.3
Zimbabwe	2.3	0.5	0.6	0.8	0.8
Other	26.3	15.1	21.0	37.6 ^a	46.7
Total	100	100	100	100	100
<i>Memorandum item</i>					
Total imports (US\$ millions)	817	1,199	1,163	1,063	1,263

Sources: Mozambican authorities; and IMF, *Direction of Trade Statistics*. Quoted from Meeuws (2004, Table 9).
^a About half the import data for 2001 originate in the European Union. The statistics do not permit a disaggregation.

182. *Terms of trade.* Mozambique's terms of trade, overall, declined by 14 percent in 1998 and again by 14 percent in 1999 (Annex Table 1, p. 135). The aggregate terms of trade rose by 25 percent in 2001, but the latter is really an indexing issue arising from the introduction of massive aluminium exports for the first time.

Trade policy

183. *Mozambique has made important progress in trade policy*, as was noted in Chapter 2. The trade weighted average tariff is 9 percent (Yagci, 2004), one of the lowest in Africa. There are four non-zero bands (2.5, 5, 7.5, 25). The top tariff rate has been steadily lowered, from rates approaching 100 percent in the early 1990s, down to 25 percent in 2003, and this was accompanied by a rationalization of rates and the almost total elimination of quantitative restrictions and export tariffs. Tariffs on capital goods and intermediates are between 5.0 or 7.5 percent, and those on raw materials are 2.5 percent. The differential of 15-20 percent creates high rates of effective protection – particularly for processed agricultural products, paint, tableware, and plastic goods. For this reason, as well as to reduce the scope for discretion, the DTIS (2004) recommended that there be a uniform tariff. Further reductions in tariffs will follow as the SADC trade protocol is implemented. The plan is to reduce the top tariff rate to 20 percent in 2006. Exceptions to the top tariff include: a variable surcharge on imported sugar (about 90-100 percent); surcharges on cement and galvanized steel; and surcharges on certain “luxury” items such as cars. It is notable the many agricultural products, including meat, dairy, and fruit and vegetable products are charged the consumer good duty rate.

184. On the export side, the only export tax that remains is that on unprocessed cashew (18 percent). As with the sugar surcharge, the authorities do not intend to phase this

export tax out in the foreseeable future because they feel that protection for cashew processors is needed for the survival of the industry. The only export ban extant is a ban on exports of uncut high-quality woods (see Chapter 5, p. 90, for a discussion of forestry industry and the export ban).

185. *Duty exemptions.* Export processing zones may be set up in specific geographical regions or for specific firms. Eleven of these had been approved by 2004. The benefits are duty-free imports of inputs and machinery, tax incentives (a 60 percent reduction in the corporate income tax rate), and exemption from VAT.

186. In 2003, the Ministry of Commerce and Industry attempted to eliminate tariffs on imported inputs required for export production, limiting the purview to large firms (sales of \$250,000) and to certain sectors (textile, clothing and footwear; food processing; other agro-based industries; metal and mechanical; chemicals, plastics and rubber). Only 16 firms had been approved by 2004. Most of these, however, do not export, and so the effect of the change has been to increase the effective protection of domestic producers.¹¹⁷

187. *Trade facilitation.* A recent trade facilitation audit (Meeuws, 2004) identified a two persistent problems:

- (a) *High transport costs.* Both road and railway costs are higher than international norms for well-run systems. For example, it costs \$7,000 to truck a 24-ton container from Maputo to Pemba, which is 2½ times the cost of shipping it from Dubai or China (\$2,550).¹¹⁸
- (b) *Inadequate customs facilities, lack of harmonization of customs procedures with neighboring countries and lack of coordination among inspections at border crossings.* Management of customs was contracted out during the 1990s, leading to increases in efficiency of collection which more than compensated for the decline in the tariff rates. Since then, the management of customs has undergone further reform as the service is being turned over to national operators (Mwangi and De Wulf, 2003). Waiting times at the borders are still long, however, owing to inadequate border facilities and a lack of cooperation between customs, other border agencies, transport authorities and law enforcement authorities.

188. *Trade agreements.* Market access is not a binding constraint on export growth at this time, but may be a serious constraint in the medium term. Mozambique has duty- and quota-free access to the European Union (EU) market, under the Cotonou Agreement and Everything-But-Arms (EBA) Initiative; and to the US market, under the Africa Growth and Opportunity Act (AGOA). Mozambique's access to the South African market is also relatively free. While the SADC Trade Protocol has very rigid rules of origin, they are not yet binding for Mozambique. Additionally, Mozambique has access to the Nordic countries (Denmark, Finland, Norway and Sweden), through the Nordic/SADC Accord,

¹¹⁷ See DTIS, vol. 1, p. 30.

¹¹⁸ Compiled by Global Development Solutions, LLC, for World Bank, 2005c, p. 116f. In turn from DTIS (2004) and Sowman (2001).

which provides market opportunities for SADC-made products on favorable terms. Mozambique's inability to benefit fully from trade preferences is due to constraints on the supply side.

189. Recently the question was raised as to whether Mozambique would benefit from membership in the Southern African Customs Union. The main benefit would be duty- and quota-free access to the SACU market without meeting SADC's restrictive rules of origin. However, benefits of similar size can be secured through other ways, e.g. using the existing (or an improved) bilateral trade agreement with South Africa, which has more liberal rules of origin compared to SADC. Furthermore, SACU membership carries two distinct disadvantages. First, by joining SACU, Mozambique would adopt the present tariff structure of SACU, which serves largely the interests of South Africa. For example, South Africa produces some capital and intermediate goods and protects them heavily. Mozambique imports these products and prefers to have zero or very low tariffs on them (Yagci, 2004). Second, trade diversion resulting from SACU membership may be large because SACU's common external tariffs (CET) are high and SACU accounts for only 26 percent of Mozambique's exports. On balance, it appears that the benefits have not yet been shown to outweigh the costs, and further study would be needed to determine whether Mozambique should join.

A reform agenda for economic diversification

190. The broadening of the base for growth requires the implementation of second generation reforms to deepen and expand the efforts to establish an enabling environment that is conducive to broad-based, private sector-led growth. Several recommendations to that end are already made in this Memorandum. Additional recommendations on the most binding constraints that need to be removed are presented below regarding market access, the trade regime, trade facilitation and "behind the border" issues. If adopted, they will contribute to fostering trade development.

191. In the medium term, market access may be a binding constraint, when Mozambique reaches its full export potential. To avoid this, Mozambique needs to actively participate in (a) the on-going, mid-term review of SADC Trade Protocol to improve the ROO; and (b) the reciprocal Economic Partnership Agreement (EPA) with the EU, which will replace the non-reciprocal Cotonou Partnership Agreement. To this end, technical assistance can be provided to the authorities and the private sector under the Integrated Framework program, to improve trade capacity in Mozambique in both the public and private sectors and participate in these negotiations more effectively. For the time being, it appears that SACU membership is unlikely to serve Mozambican interests.

192. The trade regime will undergo further change in the future. As remarked above, the top tariff rate is programmed to fall from 25 percent to 20 percent in January 2006. In addition, Mozambique is committed to further liberalization through SADC Trade Protocol, and will negotiate a further duty phase-down in the context of the EBA.

193. Much needs to be done to improve the support services for exports to eliminate the anti-export bias inherent in the import duty system. The priorities are: extension of export incentives to small companies, acceleration of duty/tax reimbursement, setting up an export credit system, and improving standards and the capacity to meet the sanitary

and photo-sanitary requirements particularly for the EU market. Technical assistance can be arranged under the Integrated Framework to meet the priority needs.

194. There is a need for institutional capacity strengthening for public institutions that play an important role in trade, such as the Export Promotion Agency (IPEX), the National Directorate for Industrial Property and the National Institute for Norms and Quality or (Instituto Nacional de Normalização e Qualidade, INNOQ). Concerning the latter, a national policy on quality has been drafted and is awaiting approval by Council of Ministers. Moreover, a strategic plan for quality improvement has been developed by INNOQ, with the assistance of Swedish Cooperation. An action plan should be developed to make the INNOQ an autonomous and financially sustainable institution to regulate food, drug and consumer product quality control.

195. Trade facilitation. In order to address the delays remarked on above, there is a need for advance data exchange between controlling government entities and transport operators (e.g. via web sites, border crossing manuals) with full information on tariffs, procedures and necessary documents. There should be further simplification and standardizing of documentation requirements (viz. no duplication of international/national documentation). An integrated border management approach would also involve pre-arrival processing and advance clearance, controls on the basis of risk management and selectivity, such as to balance security and facilitation requirements. Further inland clearance facilities should also be built.

196. Behind the border policies: Given that the macro economic and fiscal conditions are improving and the exchange rate regime is broadly appropriate, the key constraints on the proposed strategy are the cumbersome investment climate and the weak infrastructure system. A selected number of these questions are addressed in this chapter.

G. CONTRACT ENFORCEMENT

197. The overall quality of the legal and judicial system in Mozambique is unsatisfactory. Courts take long to render legal decisions, and the enforcement of these decisions takes too long. This situation is partially explained by the large number of vacancies at the first instance (district) and second instance (provincial) courts. Additionally, there is a significant number of sitting judges in both the first and second instances who lack the formal legal training to discharge their functions effectively. This situation is further exacerbated by the fact that a number of district courts have not been established. As a consequence of this ineffective and unreliable legal and judicial system, the cost and risk in doing business in Mozambique has increased. Many firms avoid using the legal and judicial system to resolve their commercial disputes.

198. Public confidence in the legal and judicial system is low. A study on corruption by *Ética Moçambique* (2001) revealed that 58 percent of Mozambicans believed that “many” or a “majority” of court officials were “involved in corruption”. While there have been recent efforts to start reducing corruption in a systematic way (i.e. with the establishment of the Anti-corruption Unit and enactment of the 2004 Anti-Corruption Law), the public confidence has continued to erode due to a number of high profile scandals.

199. The *2005 Doing Business Report* finds that it takes, on average, 540 days to resolve a commercial dispute in Mozambique. This compares unfavorably with South Africa (277), Lesotho (285) and Botswana (154). An important factor in the high cost of external finance and lack of trade credit in Mozambique is the difficulty of enforcing contracts. Efforts should be directed toward improving the efficiency of the judicial system and encouraging the widespread use of the private system for Alternative Dispute Resolution established in 2000 to help enforce contracts.

200. *Recommendations.* An effective legal and judicial system requires sufficient institutional capacity and resources to properly manage the system and make it fully functional to render justice and have it enforced in a timely manner.

201. The Ministry of Justice, the Supreme Court, the Administrative Tribunal, and the Office of the Attorney General could jointly carry out an assessment of the skills of their current staff to determine whether such staff would be able to effectively carry out their functions and provide training, where needed, to develop staff skills. Additionally, it would be important for the respective institutions to consider implementing an internal performance assessment system for their staff. This would allow the management to assess the timeliness and quality of the performance of individual staff and their respective contributions to an appropriate performance by the legal and judicial system. Among other features, the performance assessment system could include an incentive system which rewards staff who carry out their functions professionally and honestly, and penalizes those who do otherwise.

202. This approach could prove effective if it also includes the design and implementation of analytical methods and data collection of court cases to monitor the performance of the legal and judicial system, including areas that may require specific attention. In order to bring about these desired changes, the respective institutions mentioned above would also benefit from developing and implementing a hiring and training program to attract and retain quality key staff to work as court administrators and be appointed in other critical positions in the legal and judicial system.

203. Given that the formal judicial system is overburdened, the authorities could consider strengthening alternative dispute resolution mechanisms. The Arbitration, Conciliation, and Mediation Center (CACM) is an independent, non-profit organization which was established to assist in resolving commercial disputes. Since becoming operational in 2002, CACM has taken up and resolved fewer than 10 cases. The authorities should consider innovative approaches to expand the dispute resolution services in order to expedite legal decisions and accelerate their enforcement.

H. “QUICK WINS”

Reducing the time and cost for registering a business

204. *Current status.* Overall, the Mozambican economy has been slow to adjust and reallocate resources to their most efficient use. The difficulty of entering and exiting the market has reduced competitive pressure to improve productivity and allowed inefficient firms to survive. It has also discouraged informal firms from becoming formal and availing themselves of some of the benefits of formality. It is thus important that the

Mozambican authorities move swiftly to bring the time and cost of starting a new operation in line with its international competitors as a way of easing entry of firms in the formal economy. To that end, the registration procedure must be simplified, expedited, and made more transparent. Moreover, all public organizations that play a part in the registration process should provide better support to investors when going through the firm registration process.

205. Two surveys report that it takes between 132 and 153 days to start a company in Mozambique (*2003 Investment Climate Assessment Survey* and the World Bank publication, *Doing Business in 2004: Understanding Regulation*). While any data on the number of days and cost that it takes to register a company inherently has a degree of subjectivity and could thus be disputed, there is a general consensus in the business community that the registration process of firms is extremely complex, time-consuming and costly. The regional average is 63 days. In Mozambique, it costs 96 percent of the per capita income to register a firm. Few entrepreneurs are willing to endure this process and pay such a high cost, so entrepreneurs may give up on the investment or remain unregistered.

206. The registration process is cumbersome and time-consuming. For example, the step of commercial registration, which takes a few hours in many other countries, took over 30 days. Additionally, the publication of the company bylaws takes well over 30 days.

207. *Recommendations.* The Government could consider two sets of complementary actions. The first one is the streamlining of the registration process and integration of the operations of all three institutions involved in this process. It is recommended that the three institutions, namely the Notary Office, the Public Commercial Registry (*Conservatória de Registo Comercial*) and the State Printing Office (*Imprensa Nacional*) merge into a joint Management Information System so that the relevant public officials of any one of these institutions can retrieve the information entered by another institution, process it and make it available for processing by yet another institution involved.

208. The second set of actions is to modernize the registration process by computerizing the entries and retrieval of information regarding the registry on enterprises. Currently, the steps to register a company are the same as those used in the 19th Century, when the Notary Public wrote out the articles of incorporation in longhand in ledgers and prepared handwritten extracts for Public Commercial Registry and the Printing Office. Modernizing this process would allow the authorities not only to quicken the speed at which enterprises are registered, but also increase the accuracy of the registry. In addition to this, proper consideration of the outsourcing of the publication function also needs to be assessed; and, if appropriate, the publication should be sourced out to private parties.

Approving the new Commercial Code

209. *Current status.* Mozambique's Commercial Code dates back to 1888. (Johannes Brahms was composing his masterpiece Op. 117.) This Code is in need of a substantial revision so as to modernize the law governing commercial transactions. Relatively new commercial concepts, such as goodwill or leasing, are not taken into account in the Commercial Code. Commercial disputes could be avoided by having a clear Commercial

Code, thereby relieving the overburdened judicial system, which takes 540 days to resolve the average business dispute. Information technology could be used with legal backing.

210. To remedy this situation, the authorities have been working on a revision of the Commercial Code since 1998. Although a revised Commercial Code was submitted to the Parliament in 2001, it has yet to be approved. It seems likely that, with a close follow-up on the work of the technical team, the Commercial Code, revised to the satisfaction of the Government, the private sector, and the Parliament, could be completed in the last quarter of 2005.

211. *Recommendations.* Regarding the process, it is important that the authorities ensure that all the relevant stakeholders are adequately consulted and that a consensus is established regarding the amendments to the Commercial Code. Given that a Commercial Code has been submitted to Parliament and that it is generally accepted to be adequate, the process leading to the approval of a new Commercial Code by the Parliament could be done through the establishment of a tripartite technical team, which would include representatives of the Government, Parliament and the private sector.

Accelerating value added tax refunds

212. The Mozambican VAT refund policy “*Código do Imposto sobre o Valor Acrescentado (Código IVA)*” was established to provide tax relief and stimulate activities for eligible private sector firms and activities which fall under the value-added tax refund structure. However, delays in VAT refunds to private firms have become a significant constraint to private sector development in Mozambique. In the sample of 194 firms surveyed for the preparation of the *2003 Mozambique Investment Climate Assessment*, 24 firms reported being owed refunds, and the average amount owed was more than 13 percent of their annual sales. This situation contributes to further straining the cash flow of these firms in a country where the cost of capital is high and considered a binding constraint on private sector development. One firm was awaiting a refund of over 3 billion Meticaís (approximately \$150,000) for over 12 months.

213. While some delays in tax refunds can sometimes be attributed to an inadequate understanding of VAT refund procedures by private operators, this factor does not explain the delays experienced by firms that have gone through the process several times and have a sound accounting system. Several firms interviewed suspect that the delays in VAT refunds are due to cash shortages in the VAT refund system. A potential solution is to permit offsetting the VAT refund against upcoming VAT payments for imports (offsetting is already allowed in respect of sales made within Mozambique.)

214. Another dimension of this issue is that some firms are not compliant with their VAT payment. The authorities should more effectively pursue firms that are non-compliant in order to increase revenues to pay compliant firms. The private sector associations should also encourage firms to be compliant with their tax payments by ensuring that they work with suppliers that are also VAT compliant.

215. *Recommendations.* The time it takes to make VAT reimbursements should be lowered to 30 days. To that end, the authorities will need to adopt several measures:

- Hiring additional VAT staff at the Directorate of Taxes and Audits could also be considered to improve collections.

- All the relevant laws and regulations should be disseminated.
- A task force could be established to review all cases and ensure that the respective refund payment is processed and made.

Reducing the cost of inspections and fines while improving compliance

216. In order to ensure compliance with relevant laws and regulations, the Mozambican authorities undertake inspections related to public health, environmental safeguards and protection, fire safety, labor standards and safety. Firms registered and operating in Mozambique can thus be the object of these inspections. While most companies understand the need for these inspections, there are concerns about the way the inspections are carried out and the resulting cost for their respective enterprises. The main concerns that entrepreneurs raise are as follows.

217. Generally, the inspections are done in a random, inconsistent and uncoordinated fashion by many authorities and for different purposes. Some firms are frequently inspected, while others are not. The unannounced nature of inspections is disruptive. A labor inspection can take place at a time when the responsible staff for human resources is away from the office, and the inspector requires the concerned staff to stop working and provide any set of documents, some dating back a few years.

218. What concerns entrepreneurs most are two other characteristics. The first one is that it seems that the inspections are not aimed at bringing about compliance with the existing laws and regulations, but rather fining companies. The second one is the discretionary manner in which most inspections are conducted. Given the absence of guidelines and/or standards on why, how and when to conduct an inspection, the system is characterized by arbitrary and inconsistent decisions.

219. Several entrepreneurs have also complained that the inspections are often carried out by a corrupt, low-level official who assess a high fine on a firm so that the company would have enough incentive to negotiate with the inspector for an “off the record” settlement. These complaints about the existence of corruption is corroborated by the USAID-funded study, *Assessment of Corruption and Red Tape as Barriers to Trade and Investment in Mozambique* (December 2002), which establishes the existence of a relatively high level of corruption and the estimated cost associated with it. Based on this study, Mozambique forgoes between US\$64 and US\$137 Million of FDI due to red tape and corruption. Additionally, Mozambique also loses revenues through “off the record” negotiated settlements of fines between inspectors and some entrepreneurs. More importantly, small informal businesses do not have the incentives for entering the formal sector and small- and medium-size enterprises stated that they were the most negatively affected by the inspections. Finally, this type of system has the perverse effect of allowing dishonest entrepreneurs to evade compliance with existing laws and regulations, while corrupt inspectors receive bribes.

220. Two additional areas of weakness further compound the ineffectiveness of the inspection system. The first one is that inspectors seldom provide either a rationale for the fine they have assessed or how the amount of the fine was determined. The second one is that the current inspection system does not distinguish between firms which have a good track record on being compliant with existing laws and regulations and those that have a poor record of compliance. This discourages firms which comply and maintain a

good record from being compliant and reflects a lack of focus on firms where there is real need for follow-up inspections.

221. The Ministry of Industry and Commerce (MIC) has started to emphasize the need for inspections to aim at educating the entrepreneurs and bring them into compliance with the existing laws and regulations. While this initiative will certainly contribute to slightly reducing the cost and inconvenience of the inspections for businesses, it will only be effective if and when the same initiative is broadly adopted by other ministries, such as Ministry of Planning and Finance, Ministry of Health, Ministry of Labor, Ministry of Tourism, and Ministry of the Environment.

222. *Recommendations.* The system of inspections needs to be simpler and better coordinated across the several ministries that undertake inspections. The system would be accepted and effective only if it is transparent, consistent, fair, and allows for appeals.

223. From an implementation standpoint, it would seem wise to avoid wholesale changes in existing administrative requirements. Instead, efforts should be aimed at bringing about changes in priority areas and incrementally. Some of the “quick wins” that could be pursued are as follows:

- Inspections should be announced with at 15 days’ notice to allow the firm to prepare documentation and plan its activities to minimize disruption to the work flow. Upon completion of the inspection, the firm should be given an official, written document stating that an inspection was carried out.
- Each ministry should develop rules and standard operating procedures for carrying out inspections to significantly reduce discretion and ensure consistency.
- To minimize harassment and discretionary behavior, inspectors should prepare a written report containing their findings.
- Fines should only be levied following the issuance of a letter to the firm stating the nature of the violation as well as the corrective measure(s) to be adopted to become compliant.
- All fines should be made payable to the Director of Treasury at the Ministry of Planning and Finance. This would ensure that collection and payment procedures for fines levied be registered centrally and completely, separate from individual ministries.

224. The ministries may need to carry out an assessment of the skills of its current staff to determine whether such staff would be able to effectively carry out their functions and provide training where needed to develop staff skills. Additionally, it would be important for the respective ministries to consider implementing a internal performance assessment system for inspectors which will allow the respective ministries to ensure adequacy of fees, provide written reports, and strengthen the system so that preferential treatment is not given. To this particular end, the assessment system could include an incentive system which rewards inspectors who carry out their functions professionally and honestly, and penalizes those who do otherwise.

225. The private sector associations also need to help in improving the inspection arrangements. This assistance could take the form of seminars to disseminate rules,

regulations and procedures related to the inspections to their respective members, once such rules are established.

Table 28. Summary of business climate constraints and proposed recommendations

Type of administrative barriers	Main characteristics	Some proposed solutions	Proposed implementation period
Limited access and quality of electricity	2% revenue losses due to power outages 18 average monthly power outages	Intensify power connections Improve operator's performance	Started a few years ago Will continue on for the medium term
Cost of and access to finance	Low level of credit (18% of GDP) High interest rate ($\geq 30\%$) High level of collateral (141% of credit amount)	Strengthen banking supervision Enhance financial intermediation Improve monetary and public debt management	Started 2001 Will continue for the medium term
Slow, costly contract enforcement	Enforcement is slow: 540 days Costly and risky for firms	Broaden the use of alternative dispute resolution mechanisms Create specialized courts for commercial disputes	Started mid-1990s Will continue on for the medium term
High cost and time to register a firm	138 days to register a firm Cost: 96% of per capital income	Streamline the registration process Modernize the registration process	Started in 2004, 2005: main implementation 2006: consolidation
Commercial Code inadequacies	Current Code is 116 years old Absence of modern concepts Inadequate for modern trade	Adopt the Commercial Code Use a consultative/participatory process to do so.	Started in 1999 2005: period of Code approval 2006: consolidation period
Slow value added tax refunds	99 days average refund time Severe constraint on firms' cash flow	Use offset mechanism to refund Disseminate, clarify existing laws Hire more inspectors Establish a task force for refund	2005: period of main actions 2006: consolidation period
High cost of inspections	Random, inconsistent, frequent Too punitive, not educative	Schedule inspections Emphasize obtaining compliance Reward good firms, penalize firms that are non-compliant	2005: period of main actions Will continue for the medium term

CHAPTER 5. THE ROLE OF NATURAL RESOURCES IN FASTER GROWTH AND POVERTY REDUCTION

226. Natural resources are central to this Memorandum on growth and poverty for three reasons:

- Mozambique is a natural resource based economy. Agriculture is the biggest contributor to growth and to poverty reduction, and other resources are also crucial – fisheries (10-15 percent of exports), tourism and mining (mega-projects). This chapter seeks to show that effective natural resource management will be crucial for maintaining the process of growth in the future. There are important growth opportunities in forestry and mining. Land reforms could present growth opportunities in the form of medium-scale and large-scale capitalized farming.
- The poor are crucially dependent on natural resources and changes in legislation can dramatically affect their welfare. It is crucial to understand the mechanisms of the present allocation systems so that when policy changes are introduced, the welfare of the poor is not jeopardized. Also, without further reform some of the Millennium Development Goals will not be attained (e.g. in water).
- There is a particularity about the legal setup: generally it is focused so determinedly on *equity of access* that less attention was given to the specific mechanisms for ensuring access, to promoting an efficient use of resources, and to monitoring and enforcing compliance with the norms. The challenge becomes one of how to secure growth opportunities without reducing equity of access.

227. Hence this chapter starts by examining the characteristics which the five key natural resources have in common, specifically in relation to their role in growth creation and poverty reduction. Then it proceeds to examine each of the five key natural resources in turn, explaining their potential contributions to sustaining high growth rates and reducing poverty further.

A. NATURAL RESOURCES: CHARACTERISTICS IN COMMON

228. The five key natural resources of Mozambique share certain characteristics. One is that their legal and administrative frameworks were, without exception, designed with the intention of protecting the poor, but that various factors conspire to result in outcomes that frequently fail to protect the poor. A second is that the Government is failing to collect rents, at a considerable fiscal loss. The third is that there is frequently a gap between the written regulation and actual implementation – the gap arising from low capacity, excessive interference, and rent seeking behavior – and this creates uncertainty for the poor, as well as for investors. The fourth characteristic is that there is frequently a lack of transparency in procedures; this reduces accountability and encourages arbitrary and rent-seeking behavior.

229. *Equity in design, but often inequitable or sub-optimal outcomes.* Natural resources management policies in Mozambique suffer from a fundamental general

problem. The laws rely on the use of instruments for the management of natural resources which have proven successful in most OECD countries as well as in many developing countries. This includes long land leases, water basin committees, delegated management of drinking water supply, quotas, concessions and fees in fisheries, forestry and mining. In the cases of all five key natural resources, the poor have benefited from intentionally free or nearly free-access regimes, which have been serving as economic buffers. Nonetheless, while much attention has been given to ensuring *equitable access* to resources, less attention has been given to the *specific mechanisms* for ensuring access, for promoting an efficient use of resources, and also for monitoring and enforcing compliance with the norms. Between the Constitution, the laws, regulations, and final implementation and enforcement there is a myriad of factors which frequently lead to poor outcomes.

230. The framework laws and regulations seek to protect the poor: in the case of land, fisheries, forests and mining, regulations focus primarily on larger scale, commercially oriented private interests, while poorer populations benefit from simplified procedures to access resources, or simply have complete open access. The problem is therefore not the access to these resources but the incentives to make optimum and efficient use of them. The economic implications of their potential gaps and failures are very significant, particularly in the case of land.

231. In many cases, the regulations appear to have been “captured” by government bureaucracies which have created unnecessarily complex procedures that may deviate, in implementation, from the original intentions of the framework laws. Opportunities for rent seeking and corruption have been created, harming both private commercial interests and the poor.

232. In economic terms, while the framework laws are clearly designed to protect the poor, and this is a laudable achievement since poverty is the key issue in Mozambique, open access to natural resources cannot be the solution (except in the case of subsistence fisheries, para. 308, p. 89). The next challenge is to implement an effective regime of secure and transparent property rights that respects the interests of traditional users but permits and encourages more intensive development of resources. Such development will require the combination of natural resources with substantial capital investment, much of which will have to take the form of foreign investment. Hence, property rights must be seen as being secure for both local populations and foreign investors.

233. **Failure to collect rents.** Major efficiency and equity gains could be achieved in the management of four of the resources by implementing better mechanisms for charging for both services and access to resources. At present, the government is foregoing significant rents for access to and the use of resources without achieving any clear benefits in return.

234. Subject to the inevitable uncertainty about such estimates, public revenues from natural resource rents could be increased from US\$ 30 million to US\$ 67 million per year under current economic conditions, mostly by adopting a reasonable level of rents/charges for land (Table 29). Looking ahead over the next decade, if the policies recommended in this study were adopted, public revenues from natural resource rents in 2015 could realistically increase to US\$ 215 million per year, representing almost 3 percent of GDP or 20 percent of total tax revenues. The bulk of the increase after 2005

will come from the mining sector, where investments are already expanding very significantly, so that the total contribution from this sector alone would almost equal that of the other natural resources combined.

Table 29. Current and potential rents from natural resource use

	Current rents		Potential rents	
	<i>US\$ million per year, constant prices</i>			
	2003	2005	2005	2015
Fisheries	24	37		40
Forests	3	3		5
Mining	3	7		120
Agricultural land	1	20		50
TOTAL	30	67		215
As a percentage of GDP ¹	0.7	1.5		2.9
As a percentage of tax revenue ¹	5.3	11.0		19.4

¹ Based on CEM projections. See the relevant section in this chapter for the mechanisms resulting in the increased rent capture.

235. ***Gaps between regulations and their implementation, generating uncertainty.*** The way regulations are written and implemented creates major opportunities for rent seeking by the government bureaucracy. There is excessive government interference in part originating from the fact that all resources belong to the State, introducing an unnecessary level of uncertainty, bureaucracy, and an unfavorable business environment. In the area of monitoring licenses, leases, etc., where the government should have a strong grip, it shows weak capacity. This lack of capacity to monitor in turn creates opportunities for interference and rent seeking. The current regulations and their actual implementation have been leading to both inefficient use and capture by elites, contrary to the objectives of the overall framework laws.

236. Many examples support the above conclusions, as is shown in the remainder of this chapter. The transfer of land titles requires the land to have been developed in accordance with the authorized land use plan. The government capacity to actually monitor this is minimal, and in enforcing the regulation there is great scope for bureaucratic discretion and thus either corruption or meddling, creating an uncertain business environment.¹¹⁹ In the case of fisheries, there is a complex combination of quotas, license fees and payments for royalties which do not apply uniformly to all the industry, but are differentiated in accordance with criteria which are obscure. It is difficult to trace revenues, licenses, allowed catches, and other critical economic parameters of the sector. This hinders the effective collection of government rents and monitoring the extent to which the industry is in compliance with regulations.

237. Efficiency and equity gains would be reinforced by clarifying many regulations that create uncertainty, introducing a higher degree of transparency in the system, and

¹¹⁹ Teams are being set up in the provinces to inspect the land use plans.

improving the capacity to monitor licenses. Also, it is essential to minimize the numerous opportunities for rent seeking and corruption which undermine more efficient and equitable use of natural resources.

238. ***Lack of transparency in procedures.*** Clear and transparent rules are very basic requirements of a good business environment. They are also critical to make bureaucratic and political bodies socially accountable and thus to minimize rent seeking and corruption. Natural resources in Mozambique are characterized by low degrees of transparency. For instance, in the concession of licenses and equivalent permits in all sectors, the poor communities are effectively alienated from the process of resource allocation. Transparency is lacking also in the publication and dissemination of various forms of data and information: catch statistics, land rights and land transactions, fines imposed and collected in all sectors, forestry management plans, and others.

239. For instance, in the case of lands, rights to large areas of land are being acquired or transferred on the basis of expectations about its value in future uses, while the land itself is not being farmed or used for other purposes. In the case of fisheries, licenses and concessions are granted under procedures that lack transparency, a problem that is acknowledged even by the fisheries administration.

240. The subsequent sections on the five key natural resources will discuss how these problems – poor outcomes, low rents, uncertainty and lack of transparency – may be addressed.

B. RURAL LAND

241. It was found in Chapter 1 that the agricultural sector was the second-largest contributor to growth in the past decade; this coincided with the finding in Chapter 3 that agriculture was the sector that contributed most to reducing poverty. But growth in the agriculture sector has slowed and technological advance has been limited. Therefore considerable efforts will be needed to ensure continued poverty reduction. Among the efforts the Government can do is to improve the administration of two of the key natural resources: water and rural land. In the section on rural water (p. 75) it will be shown that selected reforms could help bring about increased irrigation access and reduce risk to agricultural households from floods and droughts. In this section, on rural land, it will be shown that land access for smallholders is reasonably secure but that for large-scale endeavors is not. While the Government's effort in increasing agricultural productivity should concentrate primarily on smallholders, as is argued in Chapter 6 on growth prospects (p. 110), it will be shown here that at negligibly low cost the large-scale commercial sector could be further encouraged to invest also, and this can help reduce poverty by creating employment in rural areas.

242. The total land area of Mozambique, excluding rivers and inland waters, is about 784,000 km². The FAO estimates that about 360,000 km² (36 million ha) are cultivable, but the area cultivated for arable and permanent crops was estimated to be only 4.9 million ha in 2003. Over 90 percent of the 4.9 million hectares of cultivated land in 2003 were devoted to food crops. The total area cultivated for food crops increased by only 0.9 percent per year from 1997-98 to 2003-04. The pressure on cultivable land is relatively low.

243. Projections suggest that the growth in land use for crop production and mixed farming area can easily be accommodated within the existing land resources over the next 10-15 years. Cropping rates on cultivable land will remain below 20 percent for the country, while total land used for cropping and mixed farming systems should remain less than 40 percent up to 2020. This should mean that there is ample scope for providing land for a rapid expansion of medium and large scale commercial farming that has not been included within these estimates.

244. *Land distribution.* The estimated total number of farm holdings is in the range 3.1 to 3.2 million in the period 2000-03 with an average cultivated area of about 1.35 ha per holding and a total cultivated area of about 4.25 million ha. Holdings with more than 5 ha of cultivated land account for a little under 12 percent of the total area under cultivation. Since farms of 50 ha account for less than 2 percent of cultivated land, this group does not represent a threat to small-scale farming.

245. *Legal and institutional arrangements.* The 1997 Land Law, together with subsequent regulations, sought to resolve land conflicts by including several core principles:

- All land remains property of the state, but land leases can be granted for up to 50 years. They are renewable, inheritable, and transferable subject to prior administrative authorization.
- The award of a lease is subject to the presentation of a land use or development plan, which can be cancelled if the lessee fails to comply with its conditions.
- Investments in infrastructure and improvements on leased land can be bought and sold, again requiring an administrative authorization.
- Traditional land use rights are recognized and formalized through a system of community land management, with co-titling of community lands.
- Local consultation is required before land leases can be awarded.

The law succeeded in its main aim of protecting the traditional land use rights of smallholders. In many respects the new land regime established under the law has been a success: agricultural production has been increasing, some investments are being attracted, there are no landless peasants and no tenants are paying rents to absentee landlords, as is observed in some other African countries.

246. However, Mozambique has still not succeeded in attracting large amounts of capitalized and commercially oriented farming investment, and that few partnerships between large land users and local communities have taken place. Capital-intensive operations continue to complain about the difficulties of obtaining secure leases and navigating the bureaucratic system. This suggests that further reforms are needed which go beyond the provisions of the 1997 Land Law and its accompanying regulations. (Obviously there are also other constraints on investment, such as inadequate infrastructure, as elucidated in Chapter 4 on private sector development).

247. Related to this problem is the result that on account of the way in which land is allocated, many of the concessions are under-used. Since the system of acquiring land rights lacks transparency and allows the well-connected to obtain large holdings at virtually no cost, rent-seeking behavior is encouraged. The existing mechanisms for the

award of land rights cannot be expected to deliver either efficient or fair outcomes in current circumstances. Indeed, it could be argued that if the prospective profits from land conversion are large, a bureaucratic system cannot control the process of land acquisition or transfer other than by completely suppressing all manifestations of market transactions. A combination of greater transparency and more attention to market incentives is required to produce outcomes that are seen as being reasonable and capture a share of the surplus generated by development for the State as landowner.

248. This is not an argument for a freehold land arrangement. It is proposed here to retain the leasehold arrangement but to make it secure and untrammelled by bureaucratic interference. To summarize the reforms which will be discussed in the following paragraphs:

- The leasehold arrangement is left intact. No change to the law or the constitution is envisaged. Rural leaseholds of land will still not be saleable *as such*. However, improvements and buildings will continue to be freely transactable.
- The land tax on properties over 10 ha is raised to, say, \$12 per hectare, which is a little over half the level which a free rental market would have thrown up.
- Bureaucratic interference is reduced by abolishing land use plans and by letting rural land *automatically* accompany the sale of improvements and buildings, as is done with urban land presently (at least in theory).

It is argued that this set of modest reforms will alter the system of incentives such as to attract investment by small, medium and large-scale farmers, while protecting smallholders' rights.

249. The rationale for the land tax is as follows.¹²⁰ The land law regulations specify a standard tax rate of Mt 30,000 per hectare but with a series of multipliers according to holding size, location and use, so that they range between Mt 7,500 and Mt 180,000 per ha. Customary land users are exempted. The elaborate differentiation of tax rates is too complex for consistent implementation. Above all, the tax rate is extremely low and is the tax is not consistently paid.¹²¹ The total revenue from land taxes of Mt 13 billion is equivalent to only 0.07 percent of agricultural value added. Hence it has no impact on land use or land distribution.

250. If the Government were to establish the principle that land titles will be subject to a land tax, then future and current land occupants would build this expectation into their decisions regarding how much land to occupy and how much to invest in improvements. If the enhanced land tax were imposed only on holdings over 10 ha of cultivated land, and assuming that the share of imputed rent to value added is 10 percent (a low figure by comparison with other countries), then the imputed rent would be Mt 55-60 billion or US\$ 18-20 per hectare of cultivable land per year. This level of imputed rent could readily permit a land tax of, say, \$10-12 per hectare. Data do not exist to permit complex differentiation of the tax by land quality. Since the objective is in any case *precisely* to

¹²⁰ Note that the proposal for an effective land tax is not new. The recommendation was made in 1993 during the Bank's agricultural missions, and was emphasized in the *Agricultural Sector Memorandum* (World Bank, 1997).

¹²¹ As of 1999-2000, about 50 to 60 percent of concession holders paid the tax.

encourage high-value uses rather than low-value uses, the best way to do it is to pitch the rate on the low side, compared with putative rents, as has been done in the above computation, and impose it per unit area without any differentiation. The likely revenue of a little over US\$10 million is not large, but it would establish a clear principle that land taxes must be paid on land leased from the government in lieu of rent. Holders of large leases would, in time, either put their land to better use or cede the unused parts of their leases.

251. The next recommendation is to eliminate bureaucratic interference, or the threat of it, as it is a disincentive to invest. Scope for bureaucratic discretion, and thus either corruption or meddling, occurs when leases are transferred. The main pressure point concerns whether or not the land has been developed in accordance with the authorized land use plan. It would be much better to rely upon an appropriate set of economic incentives for the efficient use of land resources than on bureaucratic monitoring. Penalties and enforcement for non-compliance with conditions on land leases must be simple, unambiguous and easily enforceable. In practice, this means that payment of the land tax is the only condition that can reasonably be enforced.

252. The requirement that potential lessees propose and implement a development plan for the land is theoretically understandable, but the government does not have the resources to check the validity of and subsequent compliance with development plans for commercial agricultural land throughout the country.¹²² Hence it is proposed that this requirement be dropped for rural land in all but very special exceptional cases. This would imply that rural land leases would be able to accompany sales of improvements and buildings automatically, as leases are (theoretically) permitted to do in the case of urban land.¹²³ This would allow transfers to be entirely a private matter subject to registration at the National Land Registry.

253. Having in this way eliminated the scope for bureaucratic interference when people seek to transfer land titles, the leasehold title system should provide all the security that is needed by investors at the medium-scale and large-scale level.

C. WATER

254. Water is essential for poverty reduction and improvement of quality of life in Mozambique. As will be shown in this section, if the country is determined to improve its poverty indicators and to reach the Millennium Development Goals, it should place a great deal of emphasis on the sound management and use of its water resources, and seek to focus more on the provision of improved water supplies to the rural population and to poor groups in urban areas. Additionally, Mozambique needs to expand its provision of water for smallholder subsistence irrigation – which has an important role to play in poverty reduction – and commercial agriculture, and reduce its vulnerability to droughts.

¹²² Note that families and communities are not required to present land use plans.

¹²³ Note that there is no legal or administrative impediment to the sale of improvements and buildings. But, as pointed out above, in rural areas it does not automatically follow that the land lease on which the improvements and buildings is located is also transferred to the new owner. For the land lease itself to be transferred, a further administrative authorization must be sought. It is here proposed that this administrative requirement be scrapped.

255. *Water availability.* Mean annual rainfall is around 800 – 1,000 mm along the coast, around 1,200 mm in the mid-part of the country, and between 1,000 – 2,000 mm in the North. There is considerable variation – even within the wetter North there are areas of low rainfall. Upstream rivers are important for water resources: 46 percent of surface water resources are generated by local rainfall while the remainder originates in upstream countries. Some 14 million Mozambicans – nearly 75 percent of the total population – rely on groundwater supply. Wells have an average depth of 50 m, allowing for the use of hand pumps.

256. *Institutional and legal framework.* The institutional and legal framework for the water sector in Mozambique is overall coherent and is largely consistent with experience and good practice in many middle and high income countries. The management structure was established with the approval of the Water Law in 1991. The Ministry of Public Works and Housing (MOPH) has the central role in water management, with cross-sectoral coordination ensured by the National Water Council (CNA), a consulting body of the Government. Within MOPH, the National Directorate of Water (DNA) is in charge of water planning, and the ARAs (Regional Water Administrations) for water management. Following the publication of the National Water Policy in 1995, responsibility for implementation resides with a number of (relatively) autonomous regional and sectoral entities.

257. In the area of water resources management, de-concentration and decentralization are being implemented with the creation of Regional Water Administrations (ARAs). In the area of water supply and sanitation, the 1995 Water Policy was approved and started to implement a framework for delegated management, attracting the participation of the private sector for utility management. Under this framework, two new institutions were created: the Water Regulatory Council (CRA) which is responsible for economic and other regulation of water sector systems that are under delegated management, and the Investment and Assets Fund for Water Supply (FIPAG), which has been set up as the body that owns the assets in urban areas that are either managed or leased by private operators. For all other urban areas as well as for the rural water supply, DNA continues to assume the leading role, until autonomous institutions can manage all systems in the medium term.

258. *Public expenditures in water.* Total public expenditures in the water sector were between US\$17 and 19 million between 2002 and 2004, equivalent to between 0.3 and 0.5 percent of GDP (Table 30). The water supply and sanitation sub-sector have historically accounted for between 83 and 97 percent of total expenditures in the water sector, the remainder being allocated to water resource management. Government expenditures in sectors other than water were much higher, education and health each getting over 4 percent of GDP, roads getting around 3 percent and agriculture 1 percent.

Table 30. Expenditures in selected sectors, 2002-2004

	Expenditures as percentage of GDP			Expenditures in US\$		
	2002	2003	2004	2002	2003	2004
Total expenditures	30	29	27	1,082	1,249	1,479
<i>of which:</i>						
Education	4.4	5.1	4.9	158	220	270
Health	4.1	4.1	4.1	146	176	230
Agriculture	1.3	1.0	1.0	46	42	55
Roads	2.8	3.8	3.5	102	165	195
Water	0.5	0.4	0.3	17	18	19
Memo items						
Total expenditures (Mt trillions)	25.6	29.7	33.4			
GDP (Mt trillions)	85.2	102.8	125.3			
CPI (1998=100)	148	168	189			
Exchange rate (Mt/US\$) ÷ 1000	23.7	23.8	22.6			

Source: Budget Execution Reports.

259. Insight into the relative distribution of spending on water supply as between urban and rural areas comes from the joint Bank-Government *Public Expenditure Review* of September 2003 (World Bank, 2003b),¹²⁴ as well as from updated spending data for 2004.¹²⁵ Overall spending on urban water has historically exceeded that on rural water. Now we factor in the fact that the rural population is 73 percent of the total, and the fact that rural people are much less served (27 percent) with water from improved sources than are urban people (65 percent). It emerges that Government spending (own revenues and donors' contributions) on expanding water access, per head of those as yet unserved, was six times greater for urban than rural in 2003 and 2004. It should be noted, however, that projects to the value of \$135 million are being developed by the African Development Bank and bilaterals including DfID and SIDA. It may be that the tide has turned in favor of concessional/grant financing of rural water supply.

260. **Water resources infrastructure.** In Mozambique, there are only five large dams with sufficient storage capacity to have an impact on multi-year uses including flood control. The useful capacity of the country's dams represents only 5 percent of the mean annual runoff of the country's rivers, excluding the Zambezi. This is very low by

¹²⁴ The PER used the Government's *PARPA* (2001) and the *Revised PARPA Water Program Budget* prepared by the National Directorate of Water. See Finney and Kleemeier, 2003 (Table 9), for sources and detailed discussion. This background paper was prepared for the 2003 Public Expenditure Review (World Bank, 2003b).

¹²⁵ These data originate with the Departamento de Cooperação Internacional (DCI) of the Ministry of Finance. The data sets assembled by DCI are used (together with accounting data) to compile the quarterly Budget Execution Reports.

international standards and indicates that the country needs to develop its infrastructure to store a larger share of the runoff.¹²⁶

261. The Government could make significant progress in reducing vulnerability to droughts by dealing with issues related to rural water supply, irrigation water for smallholder farming, and the operation and maintenance of existing systems. This could be complemented by measures improving the information database, including with upstream riparians, and warning systems that would serve both for the management of droughts as well as floods. Small dams and reservoirs should be built throughout the country in the most drought-prone areas.

262. Floods and droughts have direct implications for poverty. Just to quote one example: with the cyclone of early 2000, some 11 percent of the cultivated land in four provinces was flooded, and about 490,000 people, most of them rural dwellers, were either displaced or trapped in flood-isolated areas (World Bank, 2002, p. 4). The important subject of natural disasters and poverty is not dealt with here because it has been covered thoroughly in a contemporaneous study, *The role of water in the Mozambique economy: identifying vulnerability and constraints to growth* (World Bank, 2005b). The study sought to quantify the cost of water shocks, both at the macroeconomic level and at the household level. It notes the coping strategies employed by households – game hunting, sale of firewood, temporary labor migration, and so forth. It recommends reducing the vulnerability of the rural poor to water shocks through flood management and increasing water accessibility for productive use.

263. Storage reservoirs are certainly the most controversial of all structural measures, especially in light of potential environmental and social impacts. Dams can contribute to the attenuation of floods and the mitigation of droughts but they can also aggravate the effects of floods if not well maintained. Two major dams have been identified as being urgently needed – Moamba Major, for the water supply of Maputo, and Bué Maria, for the water supply of Beira and for the large irrigation developments being considered for the Lower Pungué. Medium sized dams are also required in the short to medium term to ensure the water supply to cities such as Nampula, Nacala, Quelimane and Lichinga. This will be a major effort for the Government and it will require strong support from the donor community.

264. The operating rules for all existing dams should be reviewed and adjusted to current needs in terms of flood attenuation as well as other uses. As most floods originate in upstream countries, Mozambique will have to continue to work with upstream riparian countries to ensure that the operation of upstream reservoirs does not contribute to aggravating floods in its territory. Implementing the legal, institutional and regulatory framework will involve capacity development, institutional strengthening, and the development of water resources management tools such as basin plans, mapping and contingency plans.

265. **Irrigation.** About one-tenth of the country's 36 million hectares of cultivable land is suitable for irrigation. The total area of land currently under cultivation is about 4.3 million ha. Of this only 0.9 percent is irrigated, the lowest in the region (compare

¹²⁶ Excluding Cahora Bassa, the storage per person is 330 m³, far lower than South Africa at 746 m³. See further discussion of the storage backlog in World Bank (2005b).

Kenya at 1.6 percent and Zimbabwe at 4 percent). The benefit-cost ratio for small-scale irrigation is high: an investment of US\$ 20 million per year over 15 years would increase total agricultural value added by about US\$ 250 million in 2020 (at 2005 prices), raising the overall rate of growth of agricultural value added from 6 percent to 6.7 percent per year.

266. In a context of limited water storage capacity, and a lack of financial resources, public resources would better be concentrated on improving conditions for smallholder farming than on commercial irrigation. For cost effectiveness, the focus would best be on small-scale, low-cost schemes rather than large projects. Attention should be concentrated on the best located and least expensive sites, rather than large capital-intensive schemes. Encouraging smallholder irrigation would also lead to increased high-value crops and increased incomes for some of the nation's poorest households. Smallholders will need to form associations in order to be able to afford irrigation and win access to technology and markets, thereby moving from subsistence to small commercial farming.

267. While there is substantial potential for the expansion of commercial irrigation, this should be driven by the private sector. The role of the Government is to put in place the legal, institutional and regulatory framework, as well as to support the development of water storage infrastructure provided this is linked to multi-purpose projects (energy / water / transport / drought management). For reasons of controlling risks and mobilizing the necessary investment resources, the private sector is likely to be much more interested in small or medium-sized schemes rather than the larger projects that tend to attract international donor interest. Hence, irrigation in the Zambezi, Punge, Buzi, Limpopo and Incomati basins is likely to be most attractive for commercial farmers, since the irrigation systems would rely primarily upon diverting water from rivers and small dams.

268. Some support for the development of water storage infrastructure may be warranted when this is linked to multi-purpose projects through energy production, water supply, transport, or drought management. Private-public partnerships should also be considered, for example with the Government providing funds for storage works and rehabilitation of irrigation infrastructure and the private sector reserving part of the irrigated area (10 percent for example) for small farmers and giving them support for production and commercialization. Irrigated sugar-cane production, for example, has potential to foster development by means of outgrower arrangements.

269. If commercial and smallholder irrigation are to contribute to long term agricultural growth, it will be necessary to promote investment not only in irrigation infrastructure but also in complementary activities ranging from transport to export processing and marketing.¹²⁷ Irrigation is only one element in a larger package that is currently hindered by all of the issues of the business environment. Without the market environment and infrastructure that meets the needs of commercial agriculture, there will

¹²⁷ Managing the risks of market development is also a critical issue. Investment in sugarcane irrigation, estates and mills to expand commercial production is a heavy commitment, while the world market is notoriously volatile. The Government should not promote such investments unless it is able to attract private partners willing to share the risks. Similar considerations apply to the development of commercial and smallholder schemes focusing on crops such as citrus, tobacco, tomatoes, other vegetables and fruit that have substantial processing or marketing requirements.

not be the skills, processing plants, etc required for smallholders to make the transition to higher value-added activities.

270. **Water supply.** Of all the natural resources, the one needing the most attention by policy-makers is water. The lack of clean water is a major factor in poor health and lowered work productivity. Even though great strides have been made in making and implementing far reaching policy reforms, given the huge challenges that the sector represents, a tremendous amount remains to be done, particularly in rural water supply.

271. Here we build on work done by the *Public Expenditure Review* (World Bank, 2003) – informed by the dramatic finding, which was not available for the latter study, that rural water access is lower than had been thought (namely 27 percent as opposed to 40) and urban water access is higher than had been thought (64 percent as opposed to 38). The detailed data are as follows.

272. According to the household surveys (IAFs), access to clean water in rural areas was raised from 12 percent in 1996/7 to 27 percent in 2002/3, and in urban areas from 56 percent in 1996/7 to 64 percent in 2002/3.¹²⁸ The Millennium Development Goal¹²⁹ is to halve the proportion of people without safe water by 2015, which means raising access in rural areas to 56 percent¹³⁰ and in urban areas to 78 percent. Clearly there is a much greater distance to be traversed in rural water (27 to 56) than in urban (64 to 78). The PARPA objective for urban water was 50 percent coverage of household piped water by 2005; this goal was obviously unrealistic and has not been attained (the level is approximately 30 percent). Urgent improvement in water access is called for. This will also require major investments.

273. **Urban water supply.** The quality of urban water service does not compare well with countries at a similar level of development. In terms of unaccounted for water, Mozambique has a median of 48 percent in the 5 biggest cities (Maputo: 53 percent) in 2004¹³¹, exceeding the African average of 39 percent.¹³² Business people complain that

¹²⁸ The Government's official figures of water access are 40 percent for rural areas and 38 percent for urban areas. These sets of numbers are not necessarily in contradiction; they measure different things. The IAF reports the *outcome*, namely whether the household has access to an improved water source as per the MDG definition (see the definition at www.who.int/water_sanitation_health/monitoring/jmp042.pdf). The Government's number is a computation of the number of boreholes dug, multiplied by a coefficient to allow for breakdowns, and multiplied by a coefficient for the number of households using the average borehole. This Memorandum uses both sets of numbers, but will focus the MDG discussion on the household survey number – because: (a) the same basis is used by the household survey in both urban and rural areas, (b) household survey numbers are internationally comparable, which the administrative records (output-cum-coefficients) are not because the coefficients vary from one country to another, and (c) it is an outcome measure rather than an input or output measure.

¹²⁹ For a summary of all the MDGs in Mozambique, see Annex Table 2, p. 136.

¹³⁰ The base year for all the MDGs is 1990. We assume that the figures for 1990 and 1996/7 were the same.

¹³¹ Data from the Government (June 19, 2005). See also: Aide-mémoire of the Second National Water Development Project, World Bank, August 23-September 23, 2004.

¹³² African average UFW: see World Health Organization and UNICEF, *Global water supply and sanitation assessment 2000 Report*, section 4.4. Source: http://www.who.int/docstore/water_sanitation_health/Globassessment/Global4-4.htm. See also Kirkpatrick *et al.* (2004, p. 42) who report the African average for 1999-2001, for state-owned water

water supply failures occur 152 days in the year, the worst of nine African countries surveyed, which together averaged 56 days.¹³³ Hours of service vary from 11 to 19 hours in the five biggest cities,¹³⁴ while the average for developing countries is 20 hours per day, and the average for African cities was 17 hours per day in 1999-2001.¹³⁵ Staffing ratios are 16 to 24 per 1,000 connections, vs. 17/1,000 for East and Central Africa and 19/1,000 for South Asia.¹³⁶ Bill collection ratios are between 70 and 88 percent in the five biggest cities.¹³⁷ The low levels of operational efficiency reflect poor management and incentives, skill shortages, and the usual range of problems that afflict most publicly-operated utilities in Africa. The PARPA objective for urban areas was 50 percent coverage of household piped water by 2005; this goal was obviously unrealistic and has not been attained (the level is approximately 30 percent).

274. The costs of expansion of supply differ sharply by method. The network cost of a new household connection is about US\$ 250, while upgrading water treatment and transmission capacity would double this figure to \$500; dividing by the official number of 5 persons served per connection, the per capita cost is \$100. The cost of a standpipe is about \$5,000, which covers 25-50 households, or about \$27 per capita.

275. Recent new directions in urban water supply have turned out to be a success story.¹³⁸ As of 2000-2001, efficiency was low as was pointed out above. The government opted for a “delegated management” model, introduced by competitive bidding for five major cities including Maputo. A private sector contractor commenced operations in 1999. The improvement in outcomes by 2004 have shown that the right decision had been made. In Maputo city, and supply improved from 9 to 13 hours, the number of functioning standpipes doubled, the collection ratio rose from 61 to 73 percent, and the number of connections rose from 70,000 to 90,000 (Table 31). Furthermore, the urban water sector has attracted further investment. If the arrangement works, the Government intends to contract out the management of the urban water utilities for five more cities/towns in the medium term.

utilities, as being 34.8 percent. The data are outdated, but probably the African average has risen since, so that it is safe to say that Mozambique’s cities perform poorly by comparison.

¹³³ Supply failures: see cross-country data from the investment climate surveys at on investment climate at <http://rru.worldbank.org/InvestmentClimate/>.

¹³⁴ Maputo 13 hours, Beira 14, Quelimane 11, Nampula 19, Pemba 13, as of May 2005.

¹³⁵ Kirkpatrick and Parker (2004, p. 42) report 17 hours per day of piped water in African cities for the year 1999-2001.

¹³⁶ Developed countries have 2.1 staff per 1,000 connections; the best 25 percent of developing country utilities have 5 or fewer staff per 1,000 connections (Tynan and Kingdom, 2002). The average staffing ratio in Africa in 1999-2001 for state-owned water utilities was 20.1 per 1,000 (Kirkpatrick and Parker, 2004, p. 41).

¹³⁷ See also: Aide-mémoire of the Second National Water Development Project, World Bank, August 23-September 23, 2004, which indicates a median of 65 percent.

¹³⁸ See a more detailed description of the institutional change in urban water, in Chapter 6, section (c) Future growth and institutions, p. 107, and also paragraph 370, page 109.

Table 31. Water indicators for Maputo city, 2000 and 2004

	2000	2004
Connections	70,000	90,000
Functioning standpipes	264	438
Average hours of supply/day	9	13 ^a
Collection ratio (%)	61	73
Source: Walker (2005).		
^a As of May 2005; see above paragraphs for source.		

276. Rough estimates suggest that 90 percent access to piped water in all 21 urban centers in Mozambique could be attained by 2015 at a cost of some US\$ 20 million a year. An investment program of this scale could be financed, provided that the utilities charge tariffs that are designed to cover the full costs of service. A part of the cost of the program could be raised from initial connection charges. When determining the level of the charge, the authorities should take into account the trade-off between erecting a barrier to achieving high coverage levels in poor areas versus the need for adequate funding for further expansion. To cover capital costs of US\$ 500 per connection, it would be necessary to charge an average tariff of about US\$ 0.55/m³. In fact the average price actually paid per cubic meter by domestic consumers at mid-2005, in the five major cities, was between US\$ 0.42 and 0.51/m³, so these tariffs still need to be raised further. The tariffs are much lower in the smaller cities (US\$ 0.32 to 0.38), calling for increases of as much as 50 percent. In addition there is a connection fee of about \$100.

277. Ideally, almost all urban consumers would receive service through private connections, but a period of at least two decades will be required to get close to that goal in Mozambique. Hence, standpipes will play an important part in urban water supply provision in the poorer areas of Mozambique's towns and cities for a decade or more. Since the poor are especially dependent on standpipes, the improvement of standpipe service would make an important contribution to urban poverty alleviation and should be given high priority, as is already recognized by FIPAG.

278. The record of managing urban standpipes in Mozambique is poor. It is reported that no more than one-fifth function properly. This is a common pattern in many cities in Asia and Africa where standpipes are operated by municipal or public utilities, which typically have no incentive or resources to ensure that standpipes are maintained and operated properly. Further options should be explored further: (a) standpipes are transferred to community organizations (church groups, local NGOs) which take on the responsibility of operating and maintaining them, or (b) standpipes are franchised to private operators, who compete with local water vendors. There have been limited experiments in Mozambique – notably in Tete and Angoche – with both models and these could be extended more widely. Another option (c) is that where the management of water utilities is transferred to the private sector, the incumbent firm be given proper incentives to maintain and extend the network of standpipes. Appropriate provisions are being included in management contracts and similar arrangements for private participation in water services in South and South-East Asia. This option could be considered when the existing arrangements in Mozambique are reviewed or extended.

279. Given the rate of urban population growth and the existing level of urban water coverage, it is unlikely that 90 percent coverage would be reached within the next two decades if policy were to focus exclusively on providing household connections. Even if standpipes are an interim and not entirely satisfactory solution, nonetheless they provide a route to ensuring that almost all of the urban population has access to some form of piped water supply within a few years.

280. *Rural water supply.* In parallel, the government has pursued the “demand driven approach” in rural areas, which requires communities to make a specific request for the installation of a water source, pay a fee, and take responsibility for its maintenance.¹³⁹ Even so, at any one time about 28 percent of water sources are non-functional for lack of spare parts close to communities, poor installation or supervision of works, weak community management and extreme poverty.

281. Rural waterpoint installation is expensive compared with neighboring countries. Sinking a borehole (with a handpump) costs \$10,000 in Mozambique, versus \$5,000-7,000 in Malawi, Tanzania, Zambia and Ghana. Given the country’s low population density, the average number of people served by each connection is about 250,¹⁴⁰ making the per capita cost some US\$50. This high figure is mainly due to drilling costs. Some of the differential has been attributed to reasons beyond the control of the authorities, such as aquifer conditions, an as yet undeveloped drilling industry, the small size of the Mozambique market which limits the gains from economies of scale, poor roads, large distances, inadequate infrastructure and services, a high level of business risk associated with high interest rates, and delayed payments on Government contracts. However, several countries in the region also face these problems. Additional factors may be poor organization and a lack of competition in drilling reinforced by reliance upon parastatal drilling companies. The elements need to be investigated and if necessary acted upon.¹⁴¹

282. Even assuming no improvements in efficiency, the investment required to meet the Millennium Development Goal of halving the proportion of the rural population without access to clean water would be about US\$ 130 million over 10 years. Financing an investment program of US\$ 15 million per year should not be a major barrier. Costs would be lower if the cost of borehole drilling could be reduced.¹⁴² It is essential that any increased program of capital expenditure should be accompanied by mechanisms designed to ensure the long-term sustainability of rural water points, including increased support to community-managed schemes and/or the testing of alternative management approaches such as handpump leasing or private sector management contracts.

¹³⁹ See Ministry of Public Works and Housing (2001), p. 21.

¹⁴⁰ 250 people per well is the figure used in most international calculations. The Government’s computations typically use 500 (see Finney, 2003). Assuming a rural population of 12 million, with clean water coverage of 27 percent, and 8,000 functional wells, and assuming that half of rural people get their water from other sources, then the number of people per well is 203.

¹⁴¹ A first step towards addressing this issue has been taken with an ongoing consultancy service to Assess National Private Sector Drilling Capacity For Rural Water Supply in Mozambique. This study will also evaluate the structural cost of boreholes in the SADC region and provide an insight into the major problems facing the drilling sub-sector in Mozambique, and find ways to make the sub-sector more competitive.

¹⁴² Other forms of saving can also be made, e.g. hand dug or augured wells, and rope pumps.

283. The *policy and institutional framework* has a weak link: the lack of clear policies for rural water management, which should encompass drought mitigation, irrigation development and rural water supply. There are targets for selected items among these, such as the rehabilitation of non-operational irrigation schemes or the expansion of rural drinking water supplies, but there is little sense of a coherent strategy towards a set of issues that are critical for a large part of the population, including most of the poor.¹⁴³

284. One reason for this problem is the division of responsibilities between ministries (primarily the Ministry of Agriculture and the Ministry of Public Works and Housing). Another factor is that donor efforts, especially with respect to investments in rural drinking water schemes, have been poorly coordinated and have, therefore, failed to promote a common approach that could achieve lower costs and better sustainability of projects. A final aspect, overlaying the other two, is that this is a sphere that requires major investment, either from Government or external sources. However, the lack of domestic resources combined with the absence of a coherent strategy has meant the funds have been used opportunistically rather than with the aim of achieving specific medium or longer term goals.

285. The underlying difficulties will not be resolved easily or quickly. But, equally, the country is unlikely to meet the MDGs for water supply or poverty alleviation without higher spending on rural water supply, drought mitigation and smallholder irrigation – either via joint schemes or specific projects. A major barrier to such investments is the high level of costs exacerbated by the poor record of operational maintenance. Putting in place reliable sources of funding combined with institutional changes to promote competition and greater efficiency in the provision of rural water infrastructure will be critical elements of any policy strategy.

286. *Small piped systems.* The performance of small piped water systems is poor, with most of them ceasing to operate after a few years. The costs of rehabilitating or constructing these schemes are much higher than borehole supplies – some as much as \$85 per capita. These differentials suggest that the Government should consider the rehabilitation and expansion of small piped systems only when unit costs of investments are not too high (say, not more than US\$50 per capita), when technical and financial sustainability is ensured for operation and management, management is taken by an autonomous entity operating on commercial principles, and there is a clear commitment of the local authorities.

287. Sufficient funds need to be available to cover operation and maintenance expenses. Fewer than 40 percent of small town piped systems were operational in 2001. It is wasteful to install piped water systems that are not properly maintained, but equally there is an opportunity to make a significant step of improving coverage by rehabilitating defunct systems. A new management model is soon to be approved by Government which call for private sector participation in the management of small piped systems. This strategy is expected to provide more sustainability to these systems and to help develop the services in a more professional manner.

¹⁴³ Presently the National Water Policy (NWP) of 1995 is under review involving all stakeholders. The revised NWP is expected to provide for reinforcement of institutional coordination, long-term sustainability and highlights water as a cross-cutting issue and its role in the poverty alleviation, economic development including the water resources for irrigation, drought mitigation, water supply and other sectors.

288. *Swifter expansion of rural water supply.* Despite the evident progress made, persisting with the present arrangement for rural water is inadequate. Whereas in health and education Mozambique frequently equals or exceeds the Africa average, in rural clean water access it is well behind, at 27 percent, compared with Africa's 46.5 percent (see Table 2, p. 4). Gross primary school enrolment is now over 100 percent, and vaccination coverage 82 percent, so the "missing link" in rural livelihoods is now the absence of clean water.

289. An integrated strategy is needed in order to meet the PARPA objectives and the MDGs, and help people escape the serious health consequences of unprotected water. It should be a policy of *swift and massive expansion of access to clean water*. It should maintain two principles: cost-effectiveness, and the "demand-led approach" – for absent the latter, the proportion of non-functional wells will quickly soar beyond its present 35 percent level. It is essential that any program of increased capital expenditure be accompanied by mechanisms designed to ensure that proper provision is made to ensure that spare parts are available as required, and that community capacity is created. This process will require institutional reforms, which implies changes in policy, capacity building at all levels, the development of a sound private sector (consultants, drilling contractors, spare parts dealers, etc.)

290. This mammoth expansion is within reach. It can be attained by

- *Increasing resources and personnel in rural water access.* Although the approach will continue to be demand-driven, the binding constraint presently is not communities that satisfy the criteria but government staff, capacity building and funding to permit it to be rolled out. It may be worth considering shifting resources to rural water from sectors of lesser priority.
- *Investigate the factors underlying high drilling costs.* In particular, consider whether subjecting more work to tender and having less done by parastatals would reduce costs.
- *Expand standpipe access in urban areas.*¹⁴⁴ This can be done at lower cost than by expanding household tap connections. One possible management model is subcontracting to individuals (as is being done in some Mozambican towns such as Angoche) or a pilot management model in Maputo.
- *Licensing privately operated water kiosks* as is done in other African cities.
- *Increase co-payment in urban areas.* In all cities, and particularly the smaller ones, the tariffs need to be raised so as to cover operation and maintenance and make a contribution to debt service.

¹⁴⁴ See Chapter 4, "Standpipes: an evolving approach to public water supply", in Plummer (2003) which gives examples in sub-Saharan Africa of management arrangements for standpipe water access.

D. FISHERIES

291. Fisheries are Mozambique's second largest single export after aluminium, accounting for 10-15 percent of all exports.¹⁴⁵ Fisheries constitutes about 1.5 percent of GDP. The largest fishery business in Mozambique, by far, is the Sofala Bank shrimp fishery (industrial and semi-industrial).¹⁴⁶ Artisanal and subsistence fisheries are important for subsistence, with about 90,000 persons active. Fish products account for over 20 percent of the animal protein supply. These two broad categories – shrimp and artisanal-cum-subsistence – are the focus of the discussion here, for brevity's sake.

292. In a nutshell, the key findings are two:

- Management of the commercial shrimp fisheries is in need of improvement for the sake of fairness and increasing the tax take, but not so much for economic growth because the sustainable catch has already peaked.
- The artisanal and subsistence fisheries do not need any reorganization or policy changes at the present time. They continue to be crucial as a poverty buffer.

293. *Shrimps*. The landed shrimp catch is some eight thousand tons annually, for a value of US\$ 70 million. The total rent from the shrimp fishery is of the order of US\$ 24 million. The sector is dominated by three companies ("industrial"): Pescamar, Efripel and Krustamoz, which together hold together more than half of the total shrimp quota. In addition there are some 200 smaller companies with licenses; this "semi-industrial" sector consists of joint ventures – joint with *Emopesca*, a parastatal. The value of the company has been estimated to be in the range of US\$100 million, but is potentially much larger. In addition, a land-based processing industry has emerged, as it was declared compulsory for the industrial fisheries to land their catches regularly and not use long-term refrigeration. The processing companies are vertically integrated with joint venture companies.

294. Fishing effort has increased by a factor of three since the late 1970s, although the total catch has remained nearly constant. The total catch, broken down by industrial and semi-industrial groups, is depicted in Table 32.

¹⁴⁵ Fisheries used to account for between 35 and 40 percent of exports in the 1990s, prior to the expansion of exports arising from the mega-projects.

¹⁴⁶ Smaller ones (together accounting for just 7 percent of the value of the total catch) are tuna in the Mozambique Channel, kapenta in Cahora Bassa, and gamba (deep water shrimp). For brevity, only the Sofala Bank shrimp fishery and artisanal-cum-subsistence fishing are discussed in this Memorandum – the former being most relevant for economic growth and the latter as a poverty buffer. Further detail may be found in the background paper by Margulis (2005).

Table 32. Quotas and catches – shallow water shrimp trawlers with freezers, 1995-2003

Year	Quota ²⁾ (t)		Catch (t)				
	Industrial	Semi-industrial	Industrial ¹⁾	Semi-industrial ¹⁾	Total ¹⁾	Total ²⁾	Total ³⁾
1995		-	7,344	157	7,501		8,615
1996		-	7,043	396	7,439	8,123	8,183
1997	7,462	-	8,239	514	8,753	9,605	9,825
1998	7,650	-	7,172	976	8,148	8,559	8,559
1999	7,940	1,645	6,971	1,474	8,445	8,475	8,806
2000	7,750	1,505	7,419	1,721	9,140	9,420	9,429
2001	7,735	1,140	7,730	1,566	9,296	9,479	9,401
2002	8,000	1,165				9,222	9,472
2003	8,260	1,025				7,990	

¹ Eide et al. (2003)
² MdP, 2004
³ Total catch of *Penaeus* shrimps in Mozambique, FAO, FishStat 2004

295. Until very recently Efripel and Pescamar were subject to a specific taxation regime relative to their exploration of natural resources (*Taxa de Exploração dos Recursos Naturais*, TERN). The companies did not pay license fees but paid more than US\$3.5 million in TERN in 1999. Recent information indicates that the two companies will now pay the normal license fees, which amounted to around US\$2 million in 1999, excluding the TERN, which is now eliminated.

296. Though it is difficult to estimate the resource rent collection, the net income generated by the fishery is estimated to be at least 40 percent of the total revenue. Assuming that 80 percent of the export catch is produced efficiently, the rent would reach an annual value of around US\$24 million before tax (a corporate tax of 35 percent of the accounted profit). This implies that each ton is generating a net revenue of around US\$3,800 (US\$1,900 to the local partner) plus the license and other fishing fees and taxes paid to the Ministry of Planning and Finance (particularly on fuel). In addition, at least one direct job is created per 15 tonnes of shrimp caught.

297. No public information is available on the amounts collected from the joint ventures by Emopesca and the tax amounts passed on to the Ministry of Planning and Finance. The share of the net revenue kept in Mozambique by some of the quota-owners is likely to be higher than that provided by the joint ventures through Emopesca. Unfortunately, this revenue is not always duly collected by the Ministry of Planning and Finance.

298. **Management policies, implementation and governance.** The Ministry of Fisheries promoted in 2003 a revision of the fisheries legislation with emphasis on the Marine Fisheries General Regulation, which was adjusted to be more in line with the current realities of the sector. In terms of organizational structure, the separation between the political and management components, which implies the establishment of an independent control entity and the clarification of its coordinating responsibilities is the most urgent problem to be addressed.

299. Both industrial and semi-industrial shrimp fisheries are regulated by Total Allowable Catch together with application of Individual Catch Quota, both based on research conducted by the Fisheries Research Institute. Regulatory measures on the demersal species and large pelagics taken by the semi-industrial fleet are practically absent, except for issuance of fishing licenses. Quota management plays an essential role in the main Mozambican fisheries, particularly in the shrimp and the tuna fisheries. Since there is closed season regulation in place, there is no danger of resource depletion. In both cases the quotas, which are non-transferable, function more as a control of input (fishing effort) than control of output (catch), so they could be replaced by ordinary license fees.

300. The priority given to the semi-industrial sector in the Master Plan combined with some lack of clarity on its definition have reduced the overall profitability of the shrimp fisheries. Quotas were assigned to new entrants not by reducing the industrial fleet participation but by increasing total participation in the fishery. The allocation procedure of new licenses was not transparent, with substantial values being transferred without clear regulation or distribution criteria. In an attempt to minimize the ensuing political problems, the Ministry of Fisheries was created in 1998.

301. Even though new semi-industrial trawlers were allowed to install freezing facilities, violating the initial objectives of developing a land based processing industry, increased capacity for on shore processing has been developed over time. Quality control problems related to on shore production have been addressed and significant improvements have been obtained in this area recently. The investments in strengthening the semi-industrial sector have nonetheless allowed a land based processing industry to emerge and to professionalize the market operations in both the domestic and regional markets, even though their share of the total shrimp exports is still insignificant.

302. However, the quotas were assigned to new entrants not by reducing the industrial fleet participation but by increasing the total participation in the industry, whence the vast increase in total effort. Part of the reason for the promotion of the "semi-industrial" fleet was to encourage the entrance of Mozambican/national operators. In any case the arrangement has not been as successful as had been planned at the start, in that the Mozambican operators have not been able to develop their share and national operators remain scarce.

303. *Cost recovery and rent capture.* It was a part of the Fisheries Sector Master Plan to achieve cost recovery for the fisheries administration by 1996. Estimates indicate that full cost recovery has been achieved if the TERN were included in the calculation. A fund allocation system that covers the costs of the fisheries administration is in place, currently providing a surplus (40 percent of the license revenues) to the Ministry of Finance. Ten percent of the licenses share is allocated directly to fisheries institutions. The Fundo de Fomento Pesqueiro (FFP), which receives and redistributes 50 percent of the license income, finances the rest of the operating costs of the fisheries institutions. Surprisingly, the Ministry of Fisheries claims not to have any information on the TERN (collected by the Ministry of Finance), although it has now apparently become a regular license fee as indicated earlier.

304. In terms of rent capture, Mozambique is in the unique situation of having fish resources which allow for super normal profit (resource rent) to be collected, although

only a small fraction of this rent goes back to the Mozambican government. The license fee as of 2000 was a very low \$220 per quota ton, or roughly 2.5 percent of sale value.¹⁴⁷ The distribution of benefits by Emopesca, a governmental holding company, has not been possible to trace. Its net assets and shareholder funds represent nearly US\$ 6 million.

305. **Recommendations** are proposed in two areas: regulation and poverty alleviation. Concerning regulation, licenses and concessions are granted by procedures that lack transparency. The problem is acknowledged by the Ministry, and the lack of clear criteria for quota distribution is being reexamined with a view to implementing more transparent procedures, as this will simplify routines and responsibilities. One barrier seems to be lack of capacity and staff training. Another problem is the fragile balance obtained with the many interests involved, which makes any change difficult and only possible with a high degree of political authority, which does not seem to be developed at this stage.

306. Resource rents are obviously being garnered by major operators and are leaking out of Mozambique, even though market solutions such as licenses or quota auctions could be used to retrieve at least some of it. It would, however, be necessary to thoroughly analyze possible negative consequences caused by asymmetric information and financial conditions. The joint venture companies are largely controlled by foreign companies, which are the actual operators. A key issue is to develop a national Mozambican capacity to exploit fish resources profitably, and in so doing to review the use of Emopesca as a governmental control instrument. After the introduction of joint venture companies in the shrimp fishery, Emopesca was the majority share holder, while today it is a mere 30 percent, with little control by the Ministry of Fisheries.

307. It is proposed that in the future a modified form of the “two-track” arrangement be used. *International access* could be arranged best by an auction system. This would considerably increase the total rent received by the Mozambican state, of which only a small share is being retained in Mozambique at present. The reason for not advocating the “first-best” efficient method of an auction system throughout is that this would likely exclude national operators almost altogether. Hence for *national access*, a clear set of publicly available criteria for quota distribution is required, to ensure predictable and fair systems for users, and also to secure social benefits from natural resource exploitation.

308. **Poverty alleviation and the role of artisanal and subsistence fisheries.** There are an estimated 90,000 persons active in artisanal and subsistence fisheries on Mozambique’s coasts.¹⁴⁸ The vast majority of these people are poor. Fish resources have played an essential role as a poverty reducing economic buffer. General community development has also been initiated as parts of fisheries development, with assistance from the *Instituto de Desenvolvimento Pesqueira de Pequena Escala*. Artisanal fisheries are subject to light regulation, and it is not proposed to change this. Subsistence fisheries enjoy open access, which is the best approach with this fishery; it would be important not to undermine the poverty buffer through improper management or other governmental

¹⁴⁷ The quota fee was Mt 3,600,000/ton. The exchange rate was Mt15,860 = \$1. Value of shrimp per ton in European markets was \$9,000. Data from the then Vice-Minister of Fisheries, S.Exa. Alfredo Massinga.

¹⁴⁸ Instituto de Desenvolvimento Pesqueira de Pequena Escala, August 2, 2000.

interventions. There is no indication that open access in this case has been leading to depletion of the resource.

E. FORESTRY

309. Forestry accounts for 2.5 percent of GDP presently. The output of the sub-sector is about 120,000 cubic meters per year. Experts put the potential at some 500,000 cubic meters. The proper exploitation of this natural resource is essential for two reasons: first, it has significant growth potential¹⁴⁹ and can hence provide an avenue for further fiscal contributions, as is shown below; and second, it provides a poverty buffer.¹⁵⁰

310. When compared with 1997/98 figures, the current total output level has decreased by almost 15 percent (Table 33). Most of this reduction was due to the recent export ban of first-class round wood, since it completely dominates the totals. However, processed wood also declined during the late nineties and only by 2003 had it managed to reach the levels experienced in the mid-nineties. National total wood output is only around 127,000 m³/year today, round wood accounting for 93,000 m³, sawn wood for 30,000 m³, and posts, plywood and veneer for the rest.

Table 33. National wood production (m³) 1998-2003

Wood Types	1998	1999	2000	2001	2002	2003
Round-wood	119761	61482	84750	91215	130290	93216
Sawn-wood	28180	15323	19392	29600	29248	29928
Parquet	16394	6446	9269	3937	3715	2920
Plywood	662	661	764	664	720	82
Veneer	2792	992	826	913	1130	15
Posts	8570	3219	1028	-	5006	3570

Source: Relatório Estatístico Anual, Direção Nacional de Florestas e Fauna Bravia.

311. The export ban of first-class species round wood aimed at increasing value added in the forestry sector. With regard to forest fees, forest regulators granted a 40 percent fee reduction for all logs that are processed domestically. Exports are a tiny fraction of total production, having dramatically declined to less than 1 percent of the total output, also as a consequence of the export ban. Inversely, processed wood has rapidly increased to the level of 3 percent. Altogether, wood exports generate a value of only US\$ 30 million annually.

312. As is shown in Table 34, forest license fees in Mozambique differentiate among species. This facilitates the right rent capture. Between 2002 and 2005, the authorities have radically increased annual license fees.

¹⁴⁹ Its growth potential would be even higher if plantations with exotic, fast growing trees were taken up.

¹⁵⁰ A related subject is that of fuelwood and charcoal production. For brevity, this issue is not addressed.

Table 34. License fee structure per cubic meter, 1998-2005 (US\$)

Wood Class	1998	2003	2005
Precious	8.5	41.8	83.7
1 st class	5.2	10.5	20.1
2 nd class	3.6	6.3	12.6
3 rd class	2.4	4.2	8.4
4 th class	1.6	2.1	4.2
Estere 3 rd class	4.0	3.1	6.3
Estere 4 th class	2.4	2.1	4.2
Charcoal	0.3	0.2	0.4
Others	2.0	2.1	0.2

Note: All US\$ values converted at annual average exchange rates

313. As can be seen from Table 35, fee revenues increased five-fold with the last fee revision, from Mt 11.9 billion in 2002 to Mt 54 billion (US\$ 2.26 million) in 2003, and now account for 0.4 percent of total government revenue. It appears that at this level the current fee scheme is succeeding in capturing forest rents: the underlying background paper (see Margulis 2005) developed a methodology to estimate rent levels. Based on broadly accepted assumptions, it seems that the current average license fee for first class wood is within the expected range for scarcity rent values, and that the expected doubling in 2005 could be seen as the upper limit for an efficient rent pricing.

Table 35. License fee revenues, 1998-2003

Year	Revenue (Meticais x 10 ⁶)	Revenue (US\$)
1998	3,377	270,000
1999	3,787	300,000
2000	7,471	530,000
2001	11,855	580,000
2002	11,856	500,000
2003	54,077	2,260,000

Source: Relatório Estatístico Annual, Direção Nacional de Florestas e Fauna Bravia

314. **Management policies, implementation and governance.** The challenge of the forestry sector in Mozambique is to find the optimal set of incentives to promote forestry without exhausting the forest resources. The government needs to capture the forest rents associated with timber exploitation without creating inefficient barriers to output expansion or promoting technical inefficiencies, while at the same time protecting the poor and preserving the ecological services. The 1999 Mozambique Forest and Wildlife Law was designed with this challenge in mind, and relies on modern forest principles and instruments.

315. **Volume license fees and rent pricing.** Recent surveys in the forestry sector in Mozambique indicate a high degree of technical inefficiency throughout the production chain, suggesting that the current rent pricing based on licensing fees may not be enough to create compatible incentives. The forest law states that both forest concessions and simple licenses can be issued independently of forest productivity. Logging companies

thus tend to maximize logging volumes while benefiting from the advantages of simple licenses, bringing the forest value down. A disadvantage with the current system of fees (“volume license fee”) is that it differentiates by wood type, which is appropriate, but does not differentiate by locality. This gives undue incentives to harvest wood near populous areas, and discourages harvesting in distant areas. This is an inefficient arrangement, causing under-use in remote areas where there are no ecological problems, and threatening deforestation in areas of easy access.^{151 152}

316. The economic literature advocates bidding as the most appropriate rent pricing mechanism, as operators reveal their maximum willingness to pay according to their expected flow of revenues and costs, allowing resource owners to capture all rent. It also discourages rent-seeking behavior observed in administrative licensing authorizations. On the other hand, bidding mechanisms require some basic conditions: zoning of concession areas with reliable inventories; participation of a sufficient number of operators to make the process competitive; and an efficient and credible system of monitoring and sanction fees, none of which are fully met in Mozambique. Hence it would be prudent to introduce the mechanism only gradually.

317. *Incentives for wood processing.* As mentioned above, to increase value added, the authorities banned exports of first-class species round wood, and granted a 40 percent fee reduction for domestically processed logs, and a 75 percent reduction for two species that account for 53 percent of total output. Banning log exports may not constitute an appropriate measure to promote domestic processing as it tends to stimulate rent seeking and illegal exports. Some studies have suggested that the ban of log exports in tropical countries tends to depress log values and incomes by more than the value added in processing and later export. Furthermore, the existing plants are as yet unable to process all the wood available, and not surprisingly the total amount of wood produced has fallen. More effective, and fiscally advantageous, would be a carefully graduated combination of time-bound tax and licensing advantages, a time-bound export tax at a light rate, and infrastructure incentives.

318. In the early stages of setting up of the industry, stumpage fee reductions can make a significant difference, particularly in a country like Mozambique, with serious domestic credit restrictions, high interest rates, and limited skilled labor and business capacity. A phase-out program to gradually eliminate such fee reductions in five years may be appropriate, considering the investment cycle of the sector. In terms of total tax revenues, such temporary fee reduction may end up increasing total tax collection in the long run due to the expansion of industrial activities, employment and good circulation.

319. Currently, licensing can be granted either for *concessions* or for *simple operators*. Simple operators are only required to present a simplified management plan, with information on area, volume and species. Managerial practices and exploitation planning are not required. Simple licenses are granted only to nationals and up to the volume of

¹⁵¹ Obviously the “first-best” arrangement would be a bidding scheme, as is discussed below. But this is a long way off in Mozambique. In the meanwhile, fee differentiation by locality is advocated as a “second-best” solution for limiting environmental damage.

¹⁵² One commentator argued that instead of locality the fee should take into account the *productivity* of forests, and that the fee should be *higher* for cutting in the productive forests in, say, Nampula. But this would have the effect of accentuating deforestation in areas of easy access.

500 m³ per year. The contribution of wood supply from simple licenses is expected to decline with the reduction of the fee waiver. The high number of simple licensees makes monitoring too costly, reducing performance, and inducing operators to use up the forest with minimal ecological and efficiency concerns.

320. Concessions, on the other hand, are required to have a detailed management plan. But these require much technical expertise and investments in inventory data, and with the underdeveloped domestic capital market, such plans are only affordable to highly capitalized foreign companies, so that only four management plans have been approved out of 45 authorized concessions in the period 2003-04.

321. In the light of these problems, an immediate transition to a bidding regime is impossible. It is hence proposed that a declining fee reduction arrangement (phased out over five years) be used instead.

322. The tax mechanisms have promising potential for increased revenues, possibly US\$ 1.5 million:

- The differentiation of license fees can be improved – by adding differentiation by locality – but without any overall increase in revenues, given the doubling of fees in 2005. In 2003, revenue increased by 500 percent whereas average fee went up by a higher proportion. We conservatively assume that the proposed fee rates made an additional 50 percent increase in 2003 revenue value, that is, US\$ 1.15 million.
- The existing fee reduction on processed log is on average 60 percent. Assuming a 30 percent share of processed wood in total revenue, and assuming processing losses of 50 percent, and assuming exempted logs are about 60,000 m³, and assuming an average fee for first class wood of US\$ 10, we estimate the total foregone revenue at US\$360,000.

323. **Benefits to communities.** Community benefits are the central issue in the current forest regulation in Mozambique. Two important instruments in the Forestry Regulation take communities into account: Article 102 states that 20 percent of the license fee revenue should be devoted to communities living in the areas where resources are extracted; and Article 36 requires concession proponents to conduct a “public audience” before an authorization is conceded. Neither clause is very effective. The 20 percent of the license fee ends up in the general budget and is rarely passed on to the community.¹⁵³ Results of the “public audiences” have been mixed, varying from a simple consultation with little given up to communities, to a very complex bargaining process. In the latter case operators usually end up offering significant side payments either in cash or in social investments (schools, roads, wells, etc). It would be well for the Government to investigate in detail the success of the consultation requirement in protecting community rights.

324. **Recommendations.** Enormous regulatory efforts in forestry have already been made in Mozambique, not only in terms of legislation, but also in implementation and analytical work. However, more is needed in order to benefit fully from the growth and

¹⁵³ Diploma Ministerial No. 93/2005 (May 4) provides for mechanisms of passing on of these funds. Time will tell whether it effectively does that.

poverty reduction potential of the sector. Growth, efficiency and social benefits can only keep increasing and preserving the country's natural basis if logging prices are correctly set. Although administrative forest rent pricing must be immediately improved to accomplish that, the medium-term goal is the introduction of a bidding license regime. To accomplish this:

- Develop a program for implementing a **zoning system** of logging areas based on detailed inventories, optimal exploitation sizes, and indicators of social conflict. This is the most important first step to set the basis for introducing bidding license mechanisms.
- Redesign the **volume license fee** to take into account location variables that also affect rent. Moreover, in accounting for efficiency levels, it should create incentives for better managerial and technical practices. It should additionally set periodical revisions of rent values.
- Phasing out the **fee reduction**. The current 40 percent fee reduction for processed logs is not dynamically efficient. This fee reduction must be seen as temporary subsidy and a phased out program must be designed and fully publicized among beneficiaries.
- Either establish an independent **monitoring/auditing body** or strengthen the existing monitoring arrangement, so as to assure non-routine inspection of the forest operations as an initial step to improve the transparency of attribution and management of forest concessions and simple licenses.
- **Bidding mechanisms**. To prepare for these, the Forest Service should ensure that the basic premises of forest concessions are met, particularly timber stock and forest productivity. The Forest Service needs to increase the quality of information of the concession areas and reduce the asymmetry of information, which is presently in favor of the concessionaire.

325. To encourage the creation of additional value added in the sector, projects could be set up for the creation of **industrial zones** for wood processing facilities combined with fiscal incentives and matching grants for staff training.

326. Finally, the forestry sector is also important as a contributor to the livelihood of tens of thousands of rural dwellers. Two recommendations follow from the discussion above:

- The present arrangement of issuing simple licenses for 500 cubic meters of cutting annually should be maintained until such time as a fully-fledged bidding system can be introduced.
- The approval and implementation of revenue sharing mechanisms for community benefit should be accelerated, with the objective of complying with the social objective of the forest regulation and ensuring a more effective monitoring system. In order to limit the erosion of communities' land and forestry rights, the effectiveness of the consultation requirement for concessioning should be evaluated.

F. MINING

327. Mozambique has favorable geology for mining activities. The sector comprises (mostly informal) small scale and manual operations, extracting gold and precious and semi-precious stones. Mining accounts for just under half a percent of GDP.¹⁵⁴ The value of mineral production on an annual basis is presented in Table 36.

Table 36. Value of annual mineral production (US\$)

Mineral	1999	2000	2001	2002	2003*
Sand	-	898,620	1,394,052	2,387,439	4,116,096
Clay	-	2,011,220	2,051,559	2,730,773	3,255,720
Bauxite	567,576	585,367	618,631	656,568	849,117
Coal	94,306	177,265	303,596	478,632	404,162
Limestone	-	5,855,900	7,292,300	13,012,323	13,483,720
Gold	186,556	224,065	218,310	167,702	623,176
Tantalite	-	625,000	675,000	1,172,500	4,717,375
Building stones	2,211,324	3,612,845	3,022,295	4,774,395	4,443,008
Others					
Total	7,159,836	15,861,359	16,552,082	26,293,231	32,789,559

Source : DNM
* - 2003 production up to September

328. Large scale mining employment is some 3,000; artisanal or small scale mining employment exceeds 50,000, or 100,000 if seasonal and occasional work is included. Industrial production is limited to tantalite and building materials.

329. Fiscal revenues from the sector rose from US\$ 0.8 million in 1997 to US\$ 3-5 million annually at present. 2005 saw a sharp increase in revenues when a sum of US\$ 120 million was paid by the Brazilian firm Companhia do Vale do Rio Doce (CVRD) to the government for exploration rights in the Moatize area, with a view to preparing a project for coal mining. Since small scale production of gold and bauxite restarted in Manica in 1990, exports by the sector rose from US\$ 4.5 million in 1992 to US\$ 32 million in 2003. In addition, it is estimated that US\$ 10 million of gold and US\$ 30 million of semi-precious stones are exported through informal channels annually, which represent some US\$ 1 million in forgone fiscal revenues at current royalty levels.

330. The number of formal sector firms doubled between 2001 and 2003, and the number of foreign firms rose from 30 to 77. Two heavy mineral sands projects are at an advanced stage of development. (i) The Moma project has a total capital cost of US\$ 220 million. At full capacity (expected in 2006), the project should produce 625,000 tonnes per year of ilmenite, 34,000 tonnes of zircon, and 14,000 tonnes of rutile, generating annual export revenues of about US\$ 80 million and employing directly 425 people. (ii) The Limpopo Corridor Sands will to begin production in 2008. The first phase of the project

¹⁵⁴ Instituto Nacional de Estatística, "Industria extracção de minerais", online table, May 2005.

is expected to produce 375,000 annual tones of titanium slag, with a capital cost of about US\$ 500 million. Annual sales are estimated at about US\$ 300 million, with about 900 new jobs created. A second phase is expected to increase capacity to 1 million tones per year of titanium slag.¹⁵⁵

331. The sharp increase in sector activity has been associated with the improvements in the law and regulation of mining, and also the introduction of an innovative and transparent Mining Cadastre.¹⁵⁶ Exploration expenditures run to some US\$ 15-25 million annually.

332. The recent trends are encouraging, but Mozambique's mining output is still well below that of countries with similar geological potential. Annual exploration expenditures could easily rise to US\$ 50-100 million per year. Given the advances in sector reform achieved recently, the increase in the quantity and quality of geological information available, and the improvements in the quality of the services delivered by the relevant government institutions, Mozambique's mineral exploitation is likely to have a prolonged period of rapid growth. With the two heavy sands projects alluded to above, and the recent start of the rehabilitation of the Moatize coal fields, export revenues could reach US\$ 500 million by 2010 and US\$ 700 million by 2015.

333. In terms of poverty reduction, during and after the conflict period the extraction of gold and gemstones has been serving as an economic buffer, being one of the few activities providing immediate cash income for the poorer Mozambicans. For the vast majority of them, mining is a part-time activity undertaken in parallel with subsistence agriculture, being an intimate part of rural societies, traditional village structures and their economies. Mining sector expansion has been associated with a reduced rate of poverty. While the poverty headcount (as measured by adult equivalent consumption) declined nationwide from 69 to 54 percent between 1997 and 2003, the mining sector showed the swiftest decline, from 68 to 44 percent.

Table 37. Poverty rates by sector of employment of the household head

Sector	1996/7	2002/3
Mining	67.7	43.5
Manufacturing	61.9	52.1
Construction	63.7	59.1
Transport	53.9	35.2
Trade	54.3	42.1
Services	52.3	50.1
Education	53.0	27.1
Health	61.0	43.0
Public Administration	49.4	35.1
Agriculture	72.5	58.1
	===	===
Total	69.1	54.1

Source: IAF 1996/7 and 2002/3, and Fox *et al.* (2005).
Poverty rate: by per adult equivalent consumption. All individuals in household are assigned to the sector of employment

¹⁵⁵ See more on the mega-projects in Chapter 1 (page 23).

¹⁵⁶ This innovative reform to the Cadastre is an excellent example of growth-inducing institutional change. See below in paragraph 336, page 97, and paragraph 371, page 109.

of the household head. If the head is not employed they are assigned to the sector of employment of the oldest adult. If nobody works (less than 5% of all cases) they are assigned to agriculture. See Annex Table 22 (p. 152) for further detail.

Part of the explanation for this finding is the growth of artisanal mining, which is the only cash-generating activity in some rural areas.

334. Despite the obvious potential benefits from the activity, the associated costs and benefits may accrue unevenly to different groups. Mining can exacerbate poverty directly by damaging the environment on which subsistence economies depend on, by creating new social and economic problems, while communities are often not given full opportunity to participate in discussions on proposed projects. The outcome will often depend on policy and institutional frameworks in place, as well as the government's political commitment to support often dispersed and isolated, less informed and less empowered groups.

335. **Management policies, implementation and governance.** Mineral resources are the property of the State. The Ministry of Mineral Resources and Energy (MIREME) has administrative and regulatory responsibility for minerals, with the National Directorate of Mines being responsible for licensing procedures. The main goal of government policy for mining (Resolution 4/98 of the Counsel of Ministers) is to establish a socioeconomic environment favorable to the development of the national private sector and to attract foreign investment. The new policy shifted the role of the State from producer to promoter and regulator, leaving the operational and implementation role to the private sector. Reforms carried out since the publication of the new mineral policy have included:

- Revision of the mining code and its regulations, attracting private investment into geological exploration and mining, and incorporating environmental provisions in coordination with MICOA;
- privatization of the state-owned enterprises, limiting State participation to ventures with prior State investment;
- capacity development, training and creation of mechanisms for efficient supervision and monitoring of mining activities;
- support to small scale and artisanal mining, trying to bring operators into the formal sector through the provision of geological services, technical support, and information.

336. The most significant contribution of the Mining Code to improve governance in the management of mineral resources was the establishment, in 2003, of a non-discretionary and transparent system to manage mining permits – the Mining Cadastre. The Cadastre enforces a simple set of regulations to promote a level playing field in access to mineral resources by the private sector. Based on a “first come, first served” principle, the Cadastre grants mining licenses based on simple conditions and the payment of a fixed mining administration fee. Holding of permits depends exclusively on the payment of surface rental fees, which are proportional to the area of the title. As a result the number of new applications for mining titles has risen (213 in 2004, compared to 140 in 2003, and 110 in 2001). So has the number of valid licenses, (325 in 2001, 550

in 2003). The average time required to obtain a mining title has dropped from 120 days in 1999 to 50 days in 2003.

337. By reducing the discretionary power of Government, increasing transparency, and improving security to potential investors, the new Mining Code has provided the adequate legislative and regulatory framework for promoting, regulating and monitoring large industrial activities. Its success should clearly serve as an inspiration for the management of other natural resources.

338. The system of **mining taxation** system consists of the general income tax code (*Imposto sobre o rendimento das pessoas colectivas – IRPC*), plus the royalty (10-12 percent for diamonds, 3-8 percent for minerals), and the surface tax associated with the holding of permits. Mining companies are also subject to local government taxes.

339. In the case of “mega-projects” the fiscal provisions of the Mining Code usually apply to the extraction activities. In order to attract foreign investment, the Government has resorted to one-on-one special arrangements, but this has its own problems: Mozambique is not getting its fair share of the resource rents, and monitoring compliance with tailor-made tax regimes is a prohibitively big task. In addition, beneficiation operations have benefited from the Industrial Free Trade Zone incentives, which establish a ceiling for the tax burden of 1 percent of net turnover. The latter provision creates an additional problem for the authorities because free market prices do not exist for most of the raw materials involved, leaving tax collection vulnerable to “transfer pricing”.

340. The system is unattractive to private investors because (i) the high royalties can place a large burden on companies during mineral market downturns, (ii) the IRPC is not suited to resource rent industries, (iii) the IRPC does not permit accumulation and carry forward of expenditures during the exploration and development phases, or accelerated depreciation for these exploration and development expenditures.

341. For mining investments, the *Código dos Benefícios Fiscais* (Code of Fiscal Incentives, 2002) provides for a tax reduction of 25 percent for investments valued at over \$500,000, up to 2010 (Article 42). In addition, for all investments whether mining or not, the Code provides an investment tax credit of 5 percent of the investment realized, for five years (Article 15). For a period of time, these measures will reduce some of the monitoring costs, but the lack of adaptation to the specificity of mining ventures remains (lack of carry-forward, accelerated depreciation).¹⁵⁷ Remedies are discussed below in paragraph 347 (p. 99).

342. Hence the arrangements for mining firms need to be revised from the roots up, to make them globally competitive, to secure a fair share for the exchequer, and to ensure neutrality across sectors such that investment decisions are not affected by differential taxes but by differences in potential profits and risks.

343. **Poverty reduction.** The Government of Mozambique has recognized in its Poverty Reduction Strategy (PARPA) that small scale and artisanal mining have a role to play in linking sector policies with national poverty reduction goals. Because of its intensive use of labor, it provides one of the few forms of self-employment and income generation in the rural areas.

¹⁵⁷ See www.tralac.org/scripts/content.php?id=1055 for further information on the Code.

344. The mining sector can contribute to poverty reduction directly and indirectly. The direct links are mainly through small scale artisanal mining which is traditionally conducted by families and entire communities off the agricultural season. It creates job opportunities for local people, encourages local businesses, and contributes to the provision of vital infrastructure for remote communities that do influence development positively, such as roads, education and health care facilities. According to the household census of 1997, mining is an important source of diversification of non-farm rural incomes in the countryside.

345. The indirect links are mainly through supply-chain mechanisms in large mining projects. Increasingly, scores of micro and small enterprises that are owned primarily by Mozambicans are providing services for the mega-projects (see paragraph 77, page 24, for further detail). The other main indirect link is through government revenues; thus the challenge is to improve the efficiency of expenditures, as has been argued in Chapter 1 (para. 33, page 11).

346. The impact of the mining sector in alleviating poverty can be enhanced. Despite the government's progress with the new Mining Code facilitating access to minerals, rural farmers still face procedural difficulties when trying to secure nationally recognized legal rights to the minerals they extract. When a company is granted legal rights by the Mining Cadastre, local communities may be forced to sell all the minerals output they extract from their traditional lands or face the risk of losing access to land that holds cultural significance to them and may be their chief means of subsistence. The government strategy to cope with this situation is to decentralize the mining cadastre's services bringing them closer to the final clients, and to provide extension services to artisanal miners, facilitating their formalization. In the case of large mechanized investments, the regulatory framework clearly recognizes that local communities need recognition in the form of consultation processes, as well as fair benefit sharing and trusted grievance mechanisms.

347. **Recommendations.** In order to maintain the mining sector's leading role in growth and in poverty reduction, there is a pending agenda of reform.

(a) Improving **governance in revenue management**. Although the Government recognizes that a special tax treatment is needed to accommodate the specificities of mining, this should be done in such a manner that the treatment is automatic for all mining firms, rather than provided on a project specific basis or in the form of special incentives. The following principles should be observed in improving the mining taxation package for Mozambique:

- Taxes should be consistent with those of other sectors of the economy. All sectors of the economy should be subject to the same – or very similar – taxation, for investments to be made efficiently. Such tax neutrality across sectors means that investment and production decisions should not be affected by differential taxes or incentives, but by sector differences in potential profits and risks.
- The fiscal regime should be profit-based rather than production-based, avoiding excessive royalties, which have to be paid independently of profitability.
- Taxes should be stable over the long term: the decision to develop a mine entails huge commitments for the life of a project with long return on investment periods;

it is therefore important that the country's mineral taxation regime be stable. Mining companies need assurances that their projects will not be affected by adverse changes on the mining legislation and related sectors, such as environmental legislation, federal taxation, and trade and foreign exchange policies. Therefore, a Stabilization Agreement that provides explicit, standardized, and non-negotiable guarantees of stable treatment with respect to these aspects should be core parts of Mozambique's mining investment agreement.

- The tax regime should be adapted to reflect some of the sector's major characteristics: (i) mining is a high risk, capital intensive industry and therefore the fiscal regime should allow the mining company to recover its capital investment before paying substantial amounts of taxes; (ii) income taxes should recognize that mining is a cyclical industry marked by fluctuating market prices, and provide loss carry-forward rules and the carry-back of mine closure costs; and (iii) the fiscal regime should take into account the fact that minerals are non renewable resources and therefore allow for all exploration and development costs to be expensed or amortized when incurred.

(b) **Mainstreaming artisanal mining.** Because of lack of institutional capacity of the administration, most of the small-scale and artisanal mining is being conducted outside the formal channels, with insufficient linkages to the rest of the economy, damage to environment, social conflicts, and loss of fiscal revenues. The government needs to implement policies to better integrate these individuals and small firms with the rest of the economy. In concrete terms, this calls for:

- capacity building of the Provincial mining administration, with the establishment of a better alignment between core central public sector functions and the implementation of their mandates at the Provincial level;
- definition of effective means for community empowerment and participation, including the establishment of public-private partnerships with responsible mining companies willing to invest part of their profits in human resources, and social and physical infrastructures;
- provision of direct education and training on health (including HIV/AIDS awareness), safety and environmental impacts to miners, local community members and local governments. This can be effective in helping miners minimize the hazards of small-scale mining, including damage to the mining area and surrounding communities; and
- at the municipal level, the biggest challenge will be to increase the tax revenues of the municipalities through the decentralization of tax collection mechanisms. The on-going reform of the mining fiscal regime (in coordination with the Ministry of Finance) could increase fiscal revenues in resource rich municipalities, and channel such revenues directly to them.

G. CONCLUSIONS

348. The main findings from this chapter are succinctly summarized in Table 38. Major growth opportunities – given appropriate reforms – are presented by the resources of rural land, water and mining. Land and water reforms can help promote agriculture, which is the second most important motor of growth and the most important sector for poverty reduction. Mining, particularly but not exclusively through mega-projects, has tremendous potential for expansion.

Table 38. Natural resources: summary of findings and recommendations

Natural resource	Major growth opportunities?	Major importance for subsistence?	Chief policy recommendation
Rural land	Yes – medium & large farming	Yes	Enable land to <i>automatically</i> accompany sales of buildings and improvements
Water	Yes – irrigated agriculture, and reducing costs of droughts & floods	Yes – rural water supply, urban water supply	Facilitate small-scale irrigation; vastly expand rural and urban household water supply
Fisheries	No	Yes	Increase the tax take, and pursue transparency in allocation of quotas
Forestry	Yes. Output can double but the sector as a whole is small. Further opportunity with plantations.	Yes	Transparent allocation
Mining	Yes – mega-projects	No (% of households is small)	Maintain transparent Mining Code and Cadastre

349. The picture is very different when thinking of the importance for subsistence of large numbers of Mozambicans. Land, water, fisheries and forestry are of key importance for subsistence of millions of people. It is important that their access to livelihoods not be upset as the country's development proceeds. For example: reforms are clearly needed in fisheries, mainly by way of increasing the tax take and pursuing transparency in quota allocation; but it is important that the free access enjoyed by the subsistence fisheries sector not be eroded as some 90,000 people depend on it.

350. The "short list" of reforms proposed in Table 38 is ambitious but feasible. Most important, for its capacity to reduce poverty, is to vastly increase rural and urban water supply. Rural land regulations need to be changed such that sales of buildings and improvements are *automatically* accompanied by the land concession, without further official ministrations. This will facilitate land transactions and increase the sense of land security, thereby encouraging investment. In mining, the most important action is simply to continue the current transparent system of administration via the Mining Code and Cadastre as this has already demonstrated its value in attracting investment.

CHAPTER 6. GROWTH AND POVERTY OUTLOOK, AND KEY RECOMMENDATIONS

351. This concluding chapter seeks to peer into the future to see what growth and poverty outcomes are likely to be, and summarizes the key recommendations from the preceding substantive chapters.

A. GROWTH IN THE LONG TERM

352. How much growth can Mozambique expect in the long term? This chapter attempts an educated guess at likely growth rates from three sources: (a) a comparison with Mozambique's neighbors, and a general equilibrium model, and (b) an intercountry comparison using the "growth regression" literature, and (c) an examination of the institutional requirements for higher growth rates. It then briefly examines the growth prospects in key sectors. Finally it draws out the likely implications for the evolution of poverty over the next decade.

(a) A regional comparison and a general equilibrium model

353. The Government's predictions of roughly 7 percent GDP growth in 2005 and 2006 appear reasonable and consistent with growth rates in the recent past. The following discussion is focused, therefore, on the medium and long term, from 2007 onwards.

354. Growth in the case of Mozambique's neighbors was a more modest 3.4 percent on average between 1995 and 2002 (Table 39). The reasons for Mozambique's superior 8-9 percent growth record in the period have been examined: in post-conflict situations "growth spurts" are frequent as agricultural yields catch up and traditional markets are recovered; investment from the region found Mozambique a useful haven; Mozambique has managed to attract a number of mega-projects; Zimbabwe expelled its farmers who built up Mozambique's tobacco industry; Mozambique has an excellent coastline and is experiencing a tourist boom; and Mozambique has attracted more aid than most of its neighbors.

355. In the long term some of these elements will cease to count for Mozambique: the post-conflict catch-up will tail off, the Zimbabwean farmers are a one-time gain anyway, and aid disbursements may gradually decline to the regional average.¹⁵⁸ In the long run, Mozambique's advantage in the region will consist of its ability to continue to attract mega-projects, and its tourist potential. Hence we may still expect Mozambique's growth to be better than the region's, though by a lesser margin than has been observed in the past. And since the mega-projects have historically had a limited impact on private

¹⁵⁸ Collier and Hoeffler (2002) find that the absorptive capacity for aid is no higher than "normal" in the first three years of peace, but that it rises to double its normal level thereafter, lasting until the end of the decade, after which it tails off to the "normal" level.

consumption, the main factor making for a faster growth rate of *private consumption* will be the unexploited tourist potential. Hence for this Memorandum the long-term growth rate used for projections should certainly exceed 3.4 percent, but perhaps not by a wide margin.

Table 39. GDP growth rates of Mozambique's neighbors

	1995-2002
Ethiopia	5.0
Kenya	1.4
Lesotho	2.1
Madagascar	2.8
Malawi	2.2
Tanzania	4.6
Uganda	6.1
Zambia	2.7
	—
<i>Mean</i>	3.4
<i>Median</i>	2.8
	—
Mozambique	8.6

Source: World Bank, SIMA (Statistical Information, Management and Analysis). GDP is in constant local currency units. The growth rate is the least squares growth rate as described in Table 7.

356. Another way of gazing at the crystal ball is to start with the general equilibrium model referred to above¹⁵⁹ which in unadjusted form delivers an average long-term growth rate of 7 percent. This growth rate reflects the amounts of investment and saving in the recent past (including direct foreign investment and aid), together with their effectiveness in translating investment into output expansion. But this growth rate has to be tempered by two factors: natural disasters and HIV/AIDS.

357. Repeated major meteorological disasters are a virtual certainty: from 1965 to 2001, 14 major floods, nine major droughts and four major disasters from typhoon landfalls occurred. Most were associated with outbreaks of cholera and diarrheal diseases (Kostermans, 2000, p. 2). Mozambique's proneness to natural disasters is well illustrated in Figure 6. Major events with substantial impacts on growth have occurred at the rate of roughly one in five years.

¹⁵⁹ Paragraph 84 (p. 26) and Benito-Spinetto and Moll (2005, Appendix).

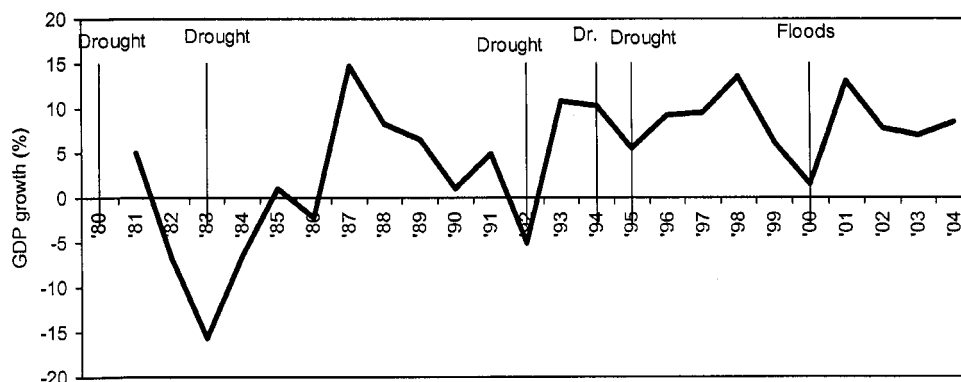


Figure 6. Natural disasters and GDP growth, 1980-2004¹⁶⁰

358. Regressing GDP growth 1981-2004 on current-year investment, a dummy for the war years and a natural disaster dummy yields

$$100 * \Delta Y/Y = 10.2 + 2.1 (I/GDP) - 5.6 D_{nat_dis} - 9.2 D_{war}, \quad R^2 = 0.43$$

(14) (2.9) (3.7)

where the standard errors are in parentheses. The regression should be taken with the utmost caution.¹⁶¹ Nevertheless the finding that war and natural disasters are bad for growth is unlikely to be overturned. The regression suggests that growth is cut by 5.6 percentage points when a major disaster strikes. At the rate of one major disaster every five years, on average GDP growth is reduced by about 1 percent annually.¹⁶²

359. *Growth and HIV/AIDS.* Mozambique has not yet won the battle against HIV/AIDS. Mozambique is one of the African countries hit hardest by the HIV epidemic. In 1992, the adult HIV prevalence rate was 3 percent¹⁶³. By 2002, 1.1 million Mozambican adults and children were living with HIV/AIDS, with an adult prevalence of 13.8 percent. By 2004 the prevalence rate was 16.2 percent. The number of AIDS-related deaths is projected to double by 2010. By 2010 life expectancy at birth is expected to drop from 43 to 36 years, rather than increasing to 50 years as it would have in the absence of HIV/AIDS. Similarly, by 2010 infant mortality is expected to be at least 25 percent higher than it would have been in the absence of HIV/AIDS. By 2010, an estimated 1.13 million Mozambican children will have lost one or both parents to AIDS.

¹⁶⁰ Sources: GDP from INE and Ministry of Finance, together with mission estimates; rainfall data from Rimma Dankova, private communication. The vertical lines do not (obviously) represent the only fluctuations in rainfall. The criterion used was that the disaster have *national* proportions.

¹⁶¹ The regression should be taken with the utmost caution because it lacks variables known to be associated with growth and the investment variable is statistically insignificant. Also, the coefficient of determination is 0.46, indicating that there is much about growth that the regression approach is incapable of capturing.

¹⁶² The implications of natural disasters for poverty have been referred to in Chapter 5 (para. 262, p. 78) and have been covered in a contemporaneous study (World Bank, 2005b).

¹⁶³ World Bank, 2004d, p. 16.

360. The demand for health services will increase substantially as a result of the HIV/AIDS pandemic. HIV/AIDS affects the health sector both by increasing the demand for health services and taking its toll on health personnel. Some of these increasing costs are already being borne by the system in the form of treatments for opportunistic diseases; an estimated 30 percent of hospital beds are occupied by HIV patients (Haacker, 2001). The likely cost of treatment in the future depends on the government's decisions on coverage and nature of care. To provide palliative care and treatment of opportunistic diseases to 20-30 percent of the population with HIV would absorb half of total health expenditure (Haacker, 2001). The costs of the loss of professionals in the health sector is substantial. Training of doctors and nurses will have to be expanded by at least 25 percent over the 2000-2010 period just to keep the number of doctors and nurses constant (Haacker, 2001).

361. The government has recognized the threat HIV/AIDS poses and is acting to prevent and mitigate its effects. Interventions currently underway or planned include those supported under the World Bank-financed HIV/AIDS Response Project and Treatment Acceleration Program, the Global Fund, the Clinton Fund, as well as several bilateral agencies. The challenge will be to ensure that all of these programs are well coordinated, target the poor for prevention, care, and alleviation. The government should also ensure that the additional funding does not cause distortions in the health delivery system, including changes in the demand for inpatient and outpatient services, consumption of drugs, and health personnel workload.

362. Arndt (2003) uses a computable general equilibrium modeling approach to study the impact of HIV/AIDS on human capital accumulation and economic growth in Mozambique. The impact is estimated for three AIDS scenarios differing in the assumptions concerning the impact of HIV/AIDS on (1) productivity, (2) on population, labor and human capital accumulation and (3) on physical capital accumulation effects. He finds that the Mozambican economy will be 14 percent to 20 percent smaller in 2010 on account of AIDS. Per capita GDP growth will be reduced by 0.3 percent per annum at the start of the period, and 1.0 percent lower per annum by the end of the period.

363. Putting these elements together, Mozambique's long-term growth is likely to be about 5 percent (= 7 percent from the model, less 1 percent per year for HIV-AIDS, less another 1 percent per year to take account of meteorological risk). This is on the assumption of the institutional environment remaining much as it is at present. Now we examine what could happen if determined efforts were made to strive for better growth and poverty reduction outcomes.

(b) An intercountry comparison using the "growth regression" literature

364. Simulations were conducted using the "growth regression" literature, comparing Mozambique's policy performance with that of some of the best performers in the developing world, including East Asian countries.¹⁶⁴ The method was to identify some carefully executed regression studies, and plug alternately Mozambican data and "best performer" data into the equations, to see what growth increment could be obtained by improving Mozambique's performance to that of the best. The results showed that

¹⁶⁴ See Benito-Spinetto and Moll (2005) for details of the methodology and results.

Mozambique could improve its growth performance markedly by raising its performance to East Asian levels. Modest gains – 0.5 to 1 percentage points per annum – could be made by

- avoiding banking crises
- improving governance
- reducing government nonproductive spending.

Larger gains, of as much as 3 percentage points of growth per annum – over time – would stem from

- improving infrastructure. Mozambique had only about 4 telephones per 1000 inhabitants during the period in the late 1990s, while Malaysia had 190.
- raising access to secondary education. In Mozambique the net secondary school enrollment rate averaged only 8 percent in the late 1990s. In Malaysia the figure was 80 percent.

Obviously making up gaps of this magnitude will take many years. Hence *in the medium term* the growth “kick” from further improvements in infrastructure and secondary education is likely to be much smaller.

365. None of these pointers should be taken in isolation from one another or in isolation from the overall policy stance of the government. For instance, improving telephones alone without simultaneously improving other aspects of infrastructure such as roads, and further facilitating the business and investment environment, is not likely to turn up the GDP growth improvements suggested by the regression models. But suppose Mozambique does make reforms on a broad front, and in particular makes improvements in all five of the areas pointed up by the regression models. Then it is not impossible that from each might arise an additional 0.5 percentage points of GDP growth per year, for a total increment of, say, 2.5 percentage points. Again, this number should not be taken literally, as the phenomenon of growth is still imperfectly understood. Nevertheless, the qualitative conclusion from these experiments is clear: Mozambique can considerably improve its growth performance by undertaking reforms in the investment environment and government performance.

(c) Future growth and institutions

366. The importance of institutions for growth and poverty reduction was demonstrated by many examples in the 2002 *World Development Report: Building Institutions for Markets*. Rodrik (2003) has pointed out that many countries have experienced “growth spurts”¹⁶⁵ of 10 years or more, frequently in response to a relatively narrow range of reforms (exchange rates, tariffs, competition), but that almost all of these growth spurts have eventually petered out. The factors that make for a growth spurt – such as stability after a conflict, a competitive exchange rate, the accession of a pro-growth government – are not necessarily the same as the factors that make for long-term sustained growth. For sustained growth a broader set of institutional changes is called

¹⁶⁵ A “growth spurt” is defined as an increase in an economy’s per capita GDP growth of 2.5 percentage points or more, relative to the previous five years, that is sustained over at least 10 years.

for, so as to achieve property rights, market-oriented incentives, sound money, and fiscal solvency. With this in mind, it is not clear whether Mozambique's amazing growth spurt will be repeated in the future.

367. The country would do well to seek for higher growth by introducing the institutional reforms that would shore up its long-term growth potential, so as to increase the system's ability to respond to shocks (e.g. floods, droughts) and to enable it to absorb technology. So far Mozambique has experienced a remarkable growth spurt *despite* a highly unpropitious institutional environment in many respects (see Chapter 4): a weak judicial system,¹⁶⁶ antiquated business legislation, an inability to enforce contracts or retrieve collateral, outdated labor laws, inflexible labor markets, the lack of a formalized accounting profession, a troubled financial sector, unclear land rights, a moribund farmer cooperative system discredited by the socialist experiment, nascent but still undeveloped "civil society" institutions, low levels of capacity in many government departments, a "red tape burden" for businesses and individuals so heavy that Mozambique scores near the poorest on several indexes. In addition, the infrastructural environment for business was unattractive, although subsequent improvements are raising Mozambique gradually to SADC levels – roads were poor everywhere except in the major cities, water supply was intermittent, and electricity supply was subject to frequent blackouts. The business-related institutional aspects were covered well in the Investment Climate Assessment (World Bank, 2003a), and are dealt with in Chapter 4. A proposed sequencing of private sector-oriented institutional reforms was presented in Table 28 (p. 68), and hence is not repeated here.

368. On the other hand, there were compensating institutional factors: a fairly unified government with a firm commitment to poverty reduction¹⁶⁷, an ability to embark on (often painful) reforms as needed, the absence of armed conflict, an active press, an unfettered information technology market permitting free use of internet capabilities, steady progress in lowering international trade barriers, free entry into agricultural marketing, easy access to visitors' and business visas, a functioning price information system for agricultural products nationwide, and a customary land tenure system that flexibly and nonviolently enabled the return of hundreds of thousands of persons displaced by the war.

369. As was discussed in Chapter 1, one of the reasons that Mozambique's growth record has been good despite its unpromising business environment is that some of the growth observed has been of the "catch-up" variety. For instance, it was not difficult for banks to expand credit to long-time clients, despite the judicial problems with collateral. By the same token, however, the next stage of growth will not be as painless. With the catch-up phase past, further growth is likely to be more dependent on improved government performance, specifically in creating a favorable investment environment, better administering natural resources, and improving the prioritization and efficiency of expenditures.

¹⁶⁶ See World Bank (2003c).

¹⁶⁷ But note the conclusion of Chichava *et al.* (2001) that the decision-making, information processing and analysis functions of the highest levels of government need improvement.

370. Mozambique has made good progress on the institutional side in some areas. Two examples of growth-enhancing institutional change are given here: urban water supply¹⁶⁸ and mining. **Urban water** coverage – as measured by the number of connections – declined from 29 percent in 1992 to 25 percent in 2002¹⁶⁹ owing to the increase of the urban population and stagnation in the number of household connection due to the delay in the implementation of the delegated management policy for urban water supplies. The quality of service was poor, with an average of only 11 hours of service per day in 2002. Only 19 percent of standpipes were functional. Cholera cases were common. The government took the decision in 1998 to place urban water provision on a sustainable basis by supporting delegated management of urban systems and engaging in competitive bidding with the private sector for a lease contract for Maputo and management contracts for four further major cities – Beira, Nampula, Quelimane, and Pemba. The negotiation process proved to be difficult and was exacerbated by the devastating effects of the floods of 2000. Nevertheless the government stuck by its decision and finally the private sector contractor commenced operations in 2002. Within two years it was evident that the right decision had been made: the number of people served went up from 33 to 38 percent, despite the 4 percent increase in urban households, and continuity of supply has improved from 11 hours to 15 hours on average. Some smaller cities have 20 hours continuous supply which may be interrupted by power shortages, but water is available. Furthermore, due to management stability, improved commercial results, and clear progress brought by the private sector, the urban water sector has attracted significant additional investments – US\$ 30 million for four more cities to be served through management contracts and another US\$ 40 million for investments in Maputo. The lesson learned is that even though the institutional change was long and difficult, it was the precondition for long-term progress and has laid the foundation for further improvement in services and investments leading to economic growth in general.

371. The other example of favorable institutional change is the **Mining Cadastre** (see Chapter 5, p. 95). This was created in 2003 in order to establish a non-discretionary and transparent system to grant, manage and cancel mining permits. On the basis of the principle “first come, first served”, the Cadastre grants mining licenses based on simple conditions and the payment of a fixed mining administration fee. As a result the number of new applications for mining titles increased sharply, from 110 in 2001, to 140 in 2003 and 180 in the first seven months of 2004. Also, the average time taken to obtain a license fell from 120 days in 1999 to 50 days in 2003. Obviously a Cadastre like this is not established in a vacuum. There were several other legal, policy and institutional changes that had to precede it. The Government adopted a policy in 1998 whose aim was to establish an attractive socio-economic environment favorable to the development of the national private sector, and to attract foreign investment. A new Mining Code was introduced in 2002 which established an adequate legal framework to attract private investment. State participation in mining has been limited, by privatizing state-owned enterprises. The capacity of the officials of the Ministry of Mineral Resources and Energy has been built up. Artisanal mining has been encouraged – some 20,000 to

¹⁶⁸ See more detailed discussion of urban water in the Public Expenditure Review, World Bank (2003b), and a background paper for the latter by Finney and Kleemeier (2003).

¹⁶⁹ See World Bank (2003b), p. 90 for sources and definitions of coverage. See also paragraph 270 (p. 80).

50,000 small scale and artisanal miners are estimated to be active in the country. There is still much to be done, particularly in reform of the fiscal arrangements for mining, but the groundwork has been laid for long-term growth in the sector.

372. These far-reaching institutional reforms permit some hope that similar growth-enhancing reforms might follow in other areas. The shake-up that has occurred in water might be extended to similar services such as electricity. The reorganization of allocation procedures in mining might be repeated, *mutatis mutandis*, in the administration of land in the large municipalities; land administration in rural areas; and the allocation of fisheries licenses. This suggests that with persistent attention to key reforms, Mozambique's potential growth rate could be better than the 5 percent suggested by the educated guesses above, and might rise to 6-8 percent as has been achieved in the past.

B. A BRIEF EXAMINATION OF THE GROWTH PROSPECTS IN KEY SECTORS

373. The major growth sectors in the next decade are expected to be: natural resource based industries (particularly mining), mega-projects and tourism. Mining was discussed in Chapter 5 (page 95) and mega-projects were covered in Chapter 1 (page 23). The prospects for tourism are discussed below, as are those of two other key sectors – agriculture and manufacturing.

Agriculture

374. Mozambique's agricultural potential is scarcely tapped. Only 15 percent of the country's arable land is under use currently. Mozambique has 3,300,000 hectares of land that can be irrigated, of which only 14% is actually being properly exploited. There are tremendous opportunities in international agricultural trade in both cash crops (cotton, tobacco, cashew) and food crops (maize trade with Malawi, rice trade in the subcontinent, horticulture to EU, to name but a few). Given low domestic purchasing power, substantial growth of smallholder incomes will require big improvements in the ability to export. Among the key requirements is financing for commercial ventures and improvements in infrastructure.

375. Yields on field crops are still well below the regional average. Figure 7 shows maize yields of Mozambique and its neighbors. Despite the remarkable post-conflict catch-up, when yields rose from a nadir of under 200 kg/ha in 1992 to over 900 in 1996, there is a long distance to go: other countries in the region – Zambia, Malawi, Tanzania and Kenya – have average yields of 1,450 kg/ha due to their superior seed types and greater usage of modern inputs. Yield growth of some 60 percent is feasible provided the institutional arrangements can be put in place – improved extension advice, a trader network for inputs, output markets, and better quality and grading standards, with private sector participation.

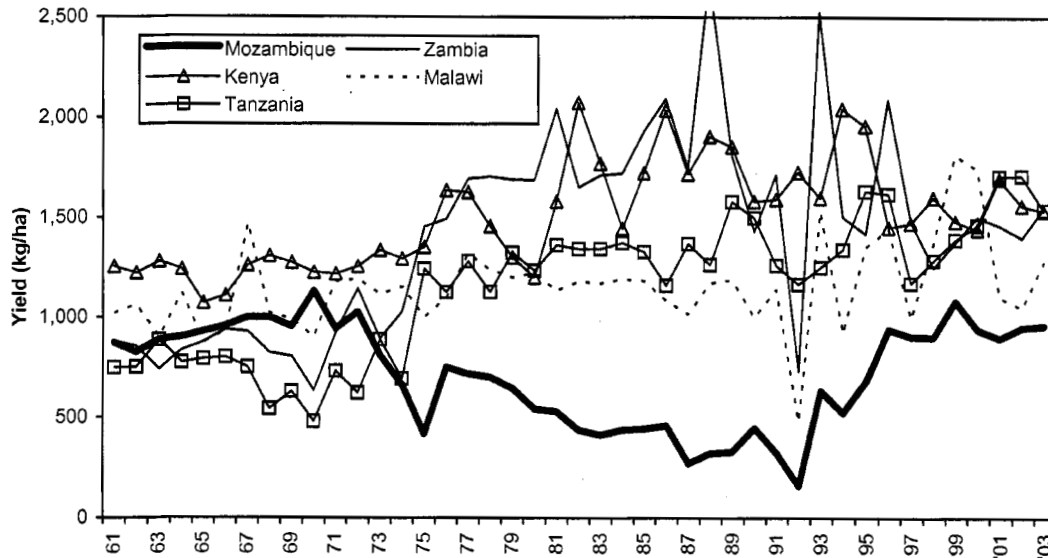


Figure 7. Maize yields, Mozambique and its neighbors, 1961-2003¹⁷⁰

376. Similarly, large yield improvements could be secured in rice, cassava, pigeon peas, groundnuts, and beans. There exists a large regional export market in rice. There is scope for increasing horticulture production and export, particularly flowers, baby vegetables, chilies, and tropical fruits, which could be achieved by entrepreneurs working with smallholders in outgrower arrangements. Contract farming in cashew, paprika and other high-value crops could also be pursued using the farmer association approach. The outlook for cotton is less attractive due to low international prices and Mozambique's historically extraordinarily low yields (300 kg/ha), but the route of encouraging farmers' associations has already shown some promise and should be promoted. Considerable scope exists for expansion of tobacco, provided Mozambique obtains a highly professional institutional capacity to deal with conflicts, achieve quality gains, and ensure the development of an associative movement which empowers smallholders.

¹⁷⁰ Source: FAOSTAT (2004).

BOX 2. SUMMARY OF RURAL DEVELOPMENT STRATEGY

This paper (World Bank, 2005d) finds that growth in the agricultural economy was primarily due to increases in the area brought under cultivation and (at least up to the late 1990s) increases in the agricultural labor force as war-displaced individuals returned to their farms. It stresses the importance of the smallholder sector and points to tremendous opportunities that exist for expanding trade, particularly in horticultural exports. It notes that there are serious difficulties in seeking to understand the impact of government spending, and by implication all donor funding, on the agricultural sector because much spending is off-budget and the budget execution data are insufficiently disaggregated. The main policy advice is that smallholder productivity should be enhanced, infrastructure access (particularly roads) must be expanded and the costs of transport reduced, and the Government should invest selectively in irrigation.

377. *Policy.* The policy environment in Mozambican agriculture is much less interventionist than in several neighboring countries. Subsidies are almost completely absent. There are a few interventions in the form of monopsony marketing areas for cotton, an 18 percent export tax on raw cashews, a small agricultural credit program (some 60,000 beneficiaries), and an extension service that reaches a minority of smallholders. The non-interventionist environment is perhaps good to encourage private initiative, but on the other hand the private sector has not stepped in to provide fertilizers, agricultural machinery, seed and so on. This may be due to a demand-side failure, associated with a lack of mechanisms for rural credit, storage facilities and infrastructure. Whatever the cause, this implies that the risks for smallholders are large. Removing these constraints will be a major task for policy-makers in the future.

BOX 3. SUMMARY OF *CONTRACT FARMING AND SUPPLY CHAIN FINANCING*

This paper (World Bank, 2005f) on contract farming (or “outgrower arrangements) finds that 400,000 smallholder farmers benefit from technical advice and in-kind credit offered by large-scale firms in cotton, tobacco, sugar and oilseeds. A key issue relates to the monopsony concessions – typically an exclusive right to purchase the outputs within a specified distance of the processing plant. Arrangements of this kind can lead to abuses and it is notable that one evaluation of contract farming in Mozambique, Kenya and Zambia found that the share of international prices of seed cotton offered by Mozambique were the lowest. But in the short to medium term the monopsonies are needed in order to protect the investment of the processors. The recommendation is that the monopsonies be subjected to further regulation and that phased out over a period of 10 years. Another way of limiting possible abuse by monopsony holders is to further encourage rural farmers’ associations. Some models in northern Mozambique have shown promise. Rural banking is underdeveloped and the total active loan portfolio is only \$5 million. The avenue of founding an agricultural development bank is best avoided because, servicing a restricted and specialized clientele, the viability of the bank would be compromised by high fixed costs and over-exposure to risks. A system of public warehouses could be set up to store agricultural goods, probably cash crops; these deposits could be used by the owners as collateral for loans.

378. Without close attention to policy there is the likelihood of stagnation of incomes and of a slowdown in progress towards poverty reduction. There has been some technical improvement, but much remains to be done by way of dissemination of improved varieties and improved mechanical techniques. The low yields could be raised, provided water and road infrastructure improves and as input and output markets grow and skills improve.

379. Further road-building will assist in increasing market participation; it is anticipated that the “Roads IV” program, due to start in 2006, will focus on the tertiary roads needed for agricultural marketing. There are serious problems with input markets which in many districts are almost altogether absent; though it is likely that this is due to a lack of effective demand, and that once the demand is present, entrepreneurs would come forward to market inputs as they do consumer goods. One of the constraints on input demand is the lack of access to financial markets, which is very limited other than in outgrower schemes such as cotton; at the very least arrangements need to be made to provide rural people with means of saving.

380. Walker *et al.* (2004) have shown that the lack of differentiation of farming structures is a constraint on growth and poverty reduction. Simulations show that further differentiation of the sector resulting in more medium-sized farms could lead to substantial reductions in poverty. Related to this is the policy with respect to the large-scale sector in general. It was argued in Chapter 5 (p. 72) that, while land access is not a constraint for smallholder farmers, and while the land law offers them reasonable protection, land access for the nascent large-scale subsector is a problem on account of the difficulties of conducting land transactions. At negligibly low cost, the large-scale subsector could be encouraged, and this could have positive benefits for poverty

reduction in terms of the employment created in rural areas, particularly in the case of outgrower arrangements.

BOX 4. SUMMARY OF *IMPACTS OF EXTENSION SERVICES*

This paper (World Bank, 2005e) is based on a survey of 500 farmers executed specifically to examine extension in Mozambique. The key finding from a series of econometric tests is that extension raises foodgrain output. In addition, tests using data from the household survey (IAF) showed that extension services are associated with increased household consumption. (Collectively these tests outweigh the negative findings of Walker *et al.* (2004) which used the agricultural TIA surveys to show that the reception of agricultural extension advice had no impact on incomes.) Extension works through the introduction of new varieties, commercialization and the promotion of natural pesticides. The key constraint is the limited coverage of the system. The government extension service is not large (700-odd staff) and is present in but 52 of the country's 128 districts, while NGOs provide extension in 42. Only 6 percent of the rural population lives in a village with an extension office. At least 50 percent of the rural population has no access to extension services. Furthermore, coverage is lower in poorer provinces. Coverage should be extended, and the remit of extension officers extended to the dissemination of information about prices.

381. Finally, there are some sector-specific problems where further policy attention is needed. The *sugar* industry, with foreign investment and high protective barriers, has succeeded in vastly expanding output by rehabilitating the plantations of colonial times, and has created some 6,000 permanent and 19,000 seasonal jobs (Streng, 2004). But despite generous protection, some of the new plantations are financially troubled. When the world sugar market is liberalized – probably in less than five years hence – these firms will be unviable. The authorities need to phase in a steady reduction of the tariff so as to facilitate adaptation. Farmgate prices of *cotton* are amongst the lowest in Southern Africa due to lobbying by some of the joint venture companies. For equity and growth reasons, the authorities need to introduce countervailing institutional arrangements.

Manufacturing

382. In the future, the *food and beverages* subsector is likely to grow, driven by strong internal demand, and backed up by the promise of vigorous growth in the tourism and restaurant trades.

383. The *wood processing and furniture* sub-sector is also likely to experience healthy rates of growth, due to the incentives the government is making available for local processing as opposed to export of logs. As was noted in Chapter 5 (p. 90), with the aim of increasing value added in the sector, a ban on the export of first-class round wood was imposed in 2003, and a license fee reduction of 40 percent was granted on logs processed locally. As remarked, better combinations of incentives could be developed than the blunt instrument of a ban. Irrespective of the incentives selected, it is clear that wood processing will increase in the next decade.

384. *The textile and garments sub-sector.* Most of the developed countries – with the exception of natural resource-rich countries such as Australia – have gone through a cycle of expanding labor-intensive cheap exports (textiles and garments), followed by heavier manufactures (metal products, etc.) before reaching high income levels. This is also the pattern followed by Mauritius, where 80,000 workers are employed in garment manufacture, and there are indications that Lesotho, Kenya and Swaziland are following suit (Cockcroft, 2004).

385. Mozambique ought to have certain advantages to enable it to pursue the same path – cheap labor, closeness to the South African market, and trade access under the AGOA and EBA agreements. But textile and garment output declined between 1999 and 2003 (Table 8, p. 20). In the late 1990s Mauritian investors contemplated investing heavily in Mozambique but finally decided against because the business environment was too unfavorable. Among the key disadvantages, specifically for the textile and garments sub-sector, were the low level of training of the work force, the difficulties of hiring expatriate managers, the high cost of retrenchment, and slow import and export procedures.¹⁷¹ Due to the lack of improvement of the business climate in the 1990s and up to 2004, Mozambique missed a superb opportunity during which time the AGOA and EBA agreements permitted tariff-free exports. For since January 2005, with the termination of the Multi-Fiber Agreement, there has been near-free global trade, and with low-cost exports by mainland China it will be more difficult for Mozambique to compete. There are some remaining tariff preferences which Mozambican exporters can benefit from, e.g. the provision in AGOA that enables transnational companies which locate in Mozambique to use third-country fabric, until 2007.¹⁷²

386. There are three stages in the sub-sector's activity: lint, yarn and garments. At the first stage, currently about 40,000 tons of lint are produced annually. (The historic peak was 120,000 tons annually.) At the second stage, fabric and yarn manufacturing has ceased altogether but there are many mills available, scattered throughout the country, which could be rehabilitated, provided the legal, financial and ownership wrangles could be solved.¹⁷³ At the third, one medium sized factory (about 500 employees) accounts for the majority of garments exported (Minor 2004), and a new venture funded by the Aga Khan Development, is setting up a cut and sew operation. Some observers believe that if managed correctly, the sector could employ 600,000 workers (Cockcroft, 2004).

387. Several key steps are needed to rehabilitate the industry:

- (a) A precondition is that the business environment has to improve dramatically – import and exports arrangements, labor regulation, red tape. Further detail on these has been given in Chapter 4 (p. 47).
- (b) Efforts could be made to attract several medium- to large-scale foreign apparel firms to invest in Mozambique.

¹⁷¹ See Harding and Calvo, 2003, section C.

¹⁷² DTIS, 2004, chapter 5.

¹⁷³ Among the problems are the social claims by workers for compensation when the companies ceased production. The old labor law contributed appreciably to strangling the sector in the early 1990s (Cockcroft, 2004) by requiring single shift work only.

- (c) The government could support the improvement of value addition at the first and second stages (raw cotton production and spinning).

Tourism

388. Tourism is one of the fastest growing economic sectors worldwide. Global tourism arrivals reached 692 million in 2001, with a 5.5 percent annual increase forecasted for the next decade. Southern Africa accounted for approximately 1.6 percent of the total in 2001 (10.7 million arrivals), with a projected annual increase of 7.8 percent over the next few years. Mozambican tourism is growing swiftly, with annual increases of over 10 percent recently, for a total of about 400,000 arrivals annually. Capacity is about 14,000 beds. Its contribution to GDP is around 1.2 percent. The biggest growth area is nature-based coastal tourism, in which Mozambique has a comparative advantage, due to its natural endowments. The country's extensive coastline (2,700 km) is unique in the East African marine region in terms of the quality, diversity and species richness of its habitats.

389. The country has a well-articulated tourism policy and a strategic plan. Recognizing the importance of the sector for the national economy and poverty alleviation, the GOM created a separate Ministry for tourism in 2001. In addition to its general economic benefits, tourism has a role to play in poverty reduction because (a) the services provided are labor intensive – restaurants, hotels, transport etc. and (b) some of the areas of greatest potential are located in areas of low agricultural potential and with limited opportunities for other types of income generation.

390. The global tourism industry has become increasingly competitive as countries have taken measures to attract development. Mozambique tourism faces constraints of infrastructure and access to high potential areas, the lack of institutional capacity to plan and manage tourism development (especially zoning and land use), a poor business climate and a low level of education and skills (which leads to low productivity and makes the destination price-uncompetitive). The average tourism development entails a relatively small investment of about US\$ 1 million. With better planning this could be increased greatly and the resources be put to better use, while attracting more revenue for the exchequer. A comprehensive approach is needed to address these constraints. In addition, it will be necessary to involve local communities and other stakeholders in the management of these areas and proceed with integrated management planning, and specifically to promote of tourism development that contributes to conservation and sustainable use of biodiversity.

391. An advantage is that the actual space required for a built environment for tourism is relatively small. It is proposed that six main areas receive especial focus, starting with Maputo/Inhaca and Vilankulo/Bazaruto Marine Park.

392. Under a "business as usual" scenario, tourism will likely increase its share of GDP from 1.2 percent to 1.8 percent in the next decade, and involve employment for a total of 145,000 people (directly and indirectly). With further reforms, as well as pursuit of already planned human capital and infrastructure investments, plus some selected public investments, this contribution could rise to 2.8 percent or even 4 percent, and provide as many as 325,000 jobs. It should be noted that the reforms in the transport sector are already starting to bear fruit: the progressive air transport policy which opened

Mozambique's skies enabled the first chartered flight with 200 tourists to arrive from Portugal in January 2005.¹⁷⁴

393. The reforms envisaged are:

- **Land.** The difficulties with the use of land are well-known and have been covered in the chapter on natural resource management (p. 72). Apart from the reforms called for generally in the area of land and governance, an additional solution in the tourism area is to define special tourism development areas to ensure that sites go to the best developers, through a transparent auction process.
- **Skills.** The skills gap has been cited above. In the long term the educational and skills deficiencies should be addressed on a countrywide basis. In the short and medium term, special tourism development areas could help by permitting specific labor training programs, and contracted-in foreign management.
- **Business environment.** The key items in the difficult business environment are also well known. Pursuing the agenda proposed in Chapter 4 on business efficiency (see Table 28, p. 68) will help to address many of the problems faced by the tourism sector. Among these should be stressed: (a) reducing the costs and time involved in business startup; (b) easing the hiring of high-level foreign skilled workers, (c) reducing the cost and time involved in retrenchment.

C. PROSPECTS FOR FUTURE POVERTY REDUCTION

394. One of the key Millennium Development Goals is reducing the poverty headcount by at least half by 2015. This means halving the proportion of people living in extreme poverty between the dates of 1990 and 2015, viz. reducing the poverty rate from 69 percent to 34.5 by 2015. To examine whether Mozambique will attain this goal, a simple simulation was prepared, relating growth in GDP to poverty reduction based on past trends (Table 40). Households were divided into two groups according to sector of employment of the head of the household: agriculture and non-agriculture. Consumption of the household per capita is assumed to grow at the same rate as GDP in the sector of employment of the head of household. Growth is assumed to be distribution neutral. This implies a constant elasticity of poverty to growth, and thus the results should be considered upper bound ones, with the likely outcome somewhat lower.

395. It is assumed that the non-agricultural sector (68 percent of GDP and 29 percent of the population in 2002/3) grows at 5.7 percent per annum from 2007 to 2015, and that the agricultural sector grows at 3.2 percent per annum after 2007. A key variable will be how fast households are able to move from the slower growing agricultural sector to the faster growing non-agricultural sectors. Three scenarios are presented:

- Scenario 1 uses a 0.8 percent annual population growth rate in agriculture households, which is very close to the trend in the IAF surveys, i.e. 0.83 percent, and a 3 percent population growth rate in non-agriculture. These growth rates imply that people migrate rapidly from agriculture to non-agricultural employment.

¹⁷⁴ Agência Lusa – Serviço Economia, January 7, 2005.

- Scenario 2 is calculated with the same population growth in both sectors and the same 2015 population as scenario 1 (to obtain this number, population growth is assumed to be 1.75 percent until 2007 and 1.33 percent thereafter).
- Scenario 3 is calculated with the same population growth rates as in scenario 2 but using GDP growth rates which are 1 percent lower in each year in both sectors.

Table 40. Poverty rates, projections for agriculture and non-agriculture

	Base year	Scheme 1: sector migration		Scheme 2: zero migration		Scheme 3: zero migration/pessimistic growth	
	2002	2007	2015	2007	2015	2007	2015
Agriculture	58	40	29	45	40	48	48
Non-agriculture	44	40	37	33	20	36	26
All	54	40	31	42	34	45	42

Source: Fox *et al.* (2005), table 25.

396. If growth can be sustained and inequality would remain at more or less the same level, the poverty rate will likely fall to 40 percent by 2007. In addition – and subject to the *caveat* that these estimates are at best rudimentary – it may be possible for Mozambique to reach the Millennium Development Goal for poverty reduction by the year 2015, by reducing its poverty headcount from 54 percent in 2002/3 to 31 percent in 2015. But it is unlikely that inequality will hold steady. Milanovic (1999) examined inequality changes between 1988 and 1993 using household data sets from 68 poor and rich countries, excluding the ex-Soviet block transition economies. Of these, 34 showed increases in inequality and 30 decreases. The average increase was higher (5.3 Gini points) than the average decrease (2.6 points). With this in mind, the projected poverty rate of 31 percent by 2015 probably overstates the extent of poverty reduction.

D. KEY RECOMMENDATIONS

397. The full set of recommendations are given in the substantive chapters 2 to 5 on growth, poverty, private sector and natural resources. Here the key recommendations are brought together so as to demonstrate that they form a credible and coherent whole.

398. The first and most important set of recommendations has to do with *macroeconomic management*, entailing both macroeconomic stability and public finance management. Without low inflation and fiscal control, none of the structural reforms will succeed in maintaining strong growth rates and reducing poverty. Given the Government's plans to expand poverty-related spending, the only way that crippling deficits can be avoided is through raising revenues by persisting with tax reform, broadening the tax base and creating an independent tax agency.

399. *Public finance management* needs dramatic upgrading because Mozambique is among the poorer performers in Africa and without substantial improvement, donor largesse which has supported the country's growth will be jeopardized. The SISTAFE should be implemented thoroughly, "off-budgets" brought on budget, budget execution figures reported meaningfully, and civil service pay scales decompressed.

400. The most important driver of the reduction in poverty was *agricultural growth*, as was abundantly shown in Chapters 2 and 3. But it was also observed that growth in agriculture has started to plateau out after the post-conflict “bounce-back”. Furthermore, there has been only modest technological improvement in the form of improved seed, use of fertilizer and machinery. Hence in order to maintain the pace of agricultural growth it will be necessary to move to productivity enhancing methods. These will include improved farmer-relevant research, broader dissemination of drought-resistant varieties, the encouragement of outgrower arrangements, the encouragement of farmer associations, and the exploration of new models for access to financial markets by smallholders.

401. While the bulk of the effort should be in the smallholder sector – simply because this is where the vast majority of output is produced currently – opportunities also exist for *facilitating investment by medium- and large-scale farming*. Such opportunities should not be neglected because they are low-cost, in that medium- and large-scale farming operations bring in their own skills, technology and capital, as witness the tobacco farmers that came from Zimbabwe and set up outgrower arrangements. Attracting medium- and large-scale farming enterprises entails mainly appropriate policy by the Government. Among the measures proposed in Chapter 5 (p. 72) is to increase security of tenure for medium- and large-scale farming operations by facilitating transactions of improvements and buildings so that sale of the latter is automatically accompanied by the land concession on which they are located.

402. In the area of private sector development (Chapter 4), this Memorandum did not attempt to break new ground, but sought only to establish a prioritization from among the many measures in the long pending agenda. These were divided into “quick wins” and “lifting binding constraints”.

403. Among the “quick wins” was that *registering a business* should be greatly simplified. This measure is practically costless for the government administration. Among the potential benefits – potential because the data are not available to predict their magnitude – is that small firms in urban areas would find it easier and cheaper to register. Their incentives to register are (i) to avoid the horse-trading consequent upon surprise inspections, (ii) to avail themselves of incentives such as training subsidies provided by the state and (iii) to be able to attract better-skilled employees who are looking for inclusion in the social security apparatus, and (iv) to be able to become suppliers of government and larger firms which are concerned with legality for tax reasons. The probable social benefits from this are that (i) the tax take would increase somewhat, (ii) more firms would be able to benefit from training subsidies, resulting in increased human capital, and presumably enhanced firm growth, and (iii) less corruption in the public sector.

404. In the category of “lifting binding constraints” is that *electricity supply* needs to be more reliable, and access to the network should be increased at a faster rate. This should be done by upgrading the financial and operational performance of Electricidade de Moçambique, through increased investment, and through institutional and legal reforms to create an enabling environment conducive to the sector’s development, with adequate regulatory capacity.

405. In the area of natural resources, the most important intervention, by far, is to increase safe and *sustainable water access for rural people*. The Government with the backing of the donor community has had considerable success in promoting educational services and health services for rural people, but rural water access is the laggard, with coverage of only 27 percent of households. The burden falls particularly on women who are obliged to do the fetching and carrying. Increased effort with rural water supply will be required, and there will be a need for funding reallocations from sectors of lesser priority.

406. Finally, it is essential that the Government persist with its strategy for *combating HIV/AIDS*. Mozambique is one of Africa's hardest hit countries, with a prevalence rate of 16.2 percent. The cost to the economy is of the order of 1 percentage point of GDP per capita each year. Ways need to be found to improve the human capacity of the administration of the HIV/AIDS programs so that the vast funds which are available are duly spent.

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ANNEX 1 TABLES AND FIGURES

Annex Table 1. Selected economic and financial indicators¹⁷⁵

Indicators	Actual					Prelim					Pro- jected				
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	
Output and prices (annual growth)															
Real GDP	4.3	7.1	11.1	12.6	7.5	1.9	13.1	8.2	7.8	7.2	7.7	7.4	6.4	6.4	
Real GDP per capita	1.7	4.4	8.4	10.4	5.5	-0.3	10.7	6.0	5.8	5.3	5.9	5.7	4.7	4.6	
Real consumption per capita	-19.7	6.7	9.5	4.3	4.2	-2.9	-3.8	6.1	8.0	6.6	7.4	2.4	4.0	3.1	
Consumer price index (ann. avg.)	54.4	44.6	6.4	0.6	2.9	12.7	9.0	16.8	13.4	12.6	8.0	7.3	6.5	5.9	
External sector (US\$ m)															
Imports (c.i.f.) at current prices	727	783	760	817	1,200	1,163	1,063	1,543	1,741	2,035	2,353	2,419	2,661	2,737	
Exports (f.o.b.) at current prices	174	226	230	245	284	364	703	810	1,044	1,504	1,713	1,746	1,778	1,889	
Export volume index (1992=100)	113	148	152	191	232	277	577	671	780	887	925	1018	1139	1236	
Import volume (index)	90.9	100.4	106.6	123.2	182.0	177.6	170.0	239.5	240.1	251.3	271.5	279.7	307.6	314.1	
Change in terms of trade (decl -)	0.3	1.8	7.7	-8.7	-4.1	8.3	-2.9	-3.8	-1.4	13.4	2.2	-7.3	-8.9	-2.8	
Real eff. exch. rate (depn. -)	-4.4	14.8	9.4	-7.7	1.6	-4.1	-9.4	-6.4	-2.8	24.8	..	..	..	..
Money and credit (trillion Mt)															
Net domestic assets	8.4	7.6	8.3	9.0	11.1	12.4	14.6	15.1	17.8	10.1	14.8	19.3	22.5	25.7	
Net domestic credit	0.9	0.5	1.0	1.1	3.1	6.2	9.7	10.9	10.8	9.2	14.5	20.6	25.8	28.0	
of which: Government	(1.6)	(3.1)	(4.4)	(5.6)	(5.6)	(5.1)	(4.3)	(3.6)	(3.5)	(4.3)	(1.0)	1.5	4.4	4.4	
Private sector	2.5	3.6	5.4	6.7	8.7	11.3	13.9	14.5	14.3	13.5	15.5	19.1	21.4	23.6	
Money and quasi-money (M2)	4.9	6.0	7.4	8.7	11.8	16.8	22.4	27.2	32.3	34.2	39.1	44.7	50.6	57.6	
M2 growth rate (percentage)		21.1	24.4	17.6	35.1	42.4	33.2	21.5	18.7	5.9	14.5	14.2	13.3	13.6	
Public finances (% of GDP)															
General govt revenue (excl grants)	11.7	10.6	11.6	11.3	12.0	12.9	12.4	12.4	12.9	12.3	13.2	14.0	14.6	15.1	
Tax revenue	10.6	9.8	10.6	10.5	11.0	11.8	11.0	11.0	12.0	11.3	11.8	12.5	12.9	13.4	
Nontax revenue	15.4	13.5	16.0	15.4	18.3	17.1	16.9	15.8	16.6	15.1	15.4	16.0	16.5	17.0	
Expenditure	24.9	20.7	23.9	21.6	24.7	26.6	32.1	30.0	26.5	23.7	25.6	24.2	24.5	24.8	
Current expenditure	10.6	9.4	10.7	11.2	12.2	13.1	13.5	13.9	14.4	13.8	13.7	13.6	14.0	14.1	
Of which: wages and salaries	2.4	2.2	3.6	4.5	5.8	6.5	6.5	6.4	6.8	6.7	6.9	6.9	6.9	7.0	
Capital expenditure	14.4	11.3	13.1	10.4	12.5	13.5	18.6	16.1	12.2	9.9	11.9	10.6	10.5	10.6	
Overall deficit before grants (-)	-13.3	-10.1	-11.9	-10.5	-13.2	-13.7	-19.9	-17.3	-14.0	-11.7	-12.4	-10.2	-10.0	-9.7	
Overall deficit after grants	-3.2	-3.1	-2.9	-2.2	-1.0	-5.8	-6.0	-7.2	-4.5	-4.4	-6.0	-4.4	-4.4	-4.2	
Primary balance after grants	-1.5	-1.6	-1.6	-1.2	-0.4	-5.6	-5.4	-5.9	-3.3	-3.4	-5.2	-3.5	-3.3	-3.1	
Savings and investment															
Gross domestic savings	5.0	5.4	8.1	10.8	13.7	11.6	8.0	11.0	10.1	11.8	13.2	14.1	14.2	14.5	
Gross dom fixed capital formation	30.5	21.8	20.6	24.2	36.7	33.5	25.9	29.8	25.9	20.1	21.3	21.3	23.8	22.5	
Public sector	12.4	10.3	12.1	9.8	11.6	10.4	15.4	12.5	11.7	9.1	10.8	9.8	9.7	9.9	
Private sector	18.1	11.6	8.5	14.5	25.1	23.2	10.5	17.3	14.2	10.9	10.5	11.5	14.1	12.6	
External current account balance	-29.1	-22.3	-17.7	-18.9	-28.4	-27.2	-26.1	-23.1	-19.9	-13.8	-13.9	-12.9	-15.0	-13.1	
Other indicators															
Gross official reserves															
In millions of US\$	225	383	532	625	669	745	727	825	947	1159	1076	1045	1104	1201	
In months of imports of g&s	3.0	4.8	6.8	7.1	5.2	5.8	5.1	5.4	6.0	5.1	4.0	3.7	3.5	3.7	
Exchange rate (Mt/US\$)	8,890	11,294	11,544	11,875	12,775	15,227	20,704	23,678	23,782	22,581	..	..	..	..
Current GDP (in US\$ billions)	2.3	2.9	3.4	4.0	4.1	3.8	3.7	4.1	4.8	6.1	6.5	7.0	7.5	7.9	
NPV external debt / exports	..	1358	709	549	212	177	110	92	102	84	84	90	96	99	

¹⁷⁵ Source: Live Data Base, in turn from INE, MPF, IMF and World Bank staff missions.

Annex Table 2. Mozambique's progress towards the Millennium Development Goals¹⁷⁶

Millennium Development Goal	Will the goal be met?	Comments
Extreme poverty: halve the proportion of people living in extreme poverty between 1990-2015, viz. from 69% to 34.5%	Possible	Rate fell from 69% in 1996/7 to 54% in 2002/3. Projecting, may be as low as 31% in 2015 – subject to the qualifications cited in the main text.
HIV/AIDS: Halt and reverse the spread of HIV/AIDS by 2015	Unknown	Prevalence rate rose from 12 percent in 2002 to 16.2 percent in 2004.
Hunger: Halve the proportion of people who suffer from hunger by 2015	Unknown	
Access to safe water: Halve the proportion of people without safe drinking water by 2015 (viz. rural: raise access from 12% to 56%, urban: from 56% to 78%).	Rural: possible Urban: possible	See main text (p. 80), and World Bank (2003b). Projecting the same rate of increase as that observed from 1996/7 to 2002/3 would give 58% rural and 81% urban coverage by 2015. <i>Note:</i> The base year for all the MDGs is 1990. We assume no change between 1990 and 1996/7.
Education: Universal completion of primary education by 2015	Unlikely	Completion rate rose from say 15% (“less than 20%” according to World Bank, 1992, p. 84) in 1990 to 36% in 2003. Projecting, it will be 51% in 2015. Unlikely to be met despite Education For All due to constraints on recurrent expenditure. See World Bank (2003b).
Gender equality: Eliminate gender disparity in:	Yes	Access: Achieved w.r.t. primary by 2002. (Completion: likely date unknown; depends on efforts to recruit female teachers.)
▪ primary education by 2005	Unknown	Access: likely date unknown. (Completion: likely date unknown.)
▪ secondary education by 2005	Unknown	Access at tertiary: likely date unknown. (Completion: likely date unknown).
▪ all levels of education by 2015	Unknown	
Child mortality: reduce under-5 mortality by 2/3 between 1990 and 2015, viz. from 226/1000 to 75/1000	Yes	IMR dropped from 207 per 1,000 in 1993-8 to 153 in 1998-2003 (World Bank, 2004d, table 3, p. 23). Projecting, the rate in 2015 is 76 (<i>idem</i> , Figure 6).
Maternal health: reduce maternal mortality by ¼ between 1990 and 2015, viz. from 980/10 ⁵ live births in 1995 (World Bank, 2004d, para. 50) to 365/10 ⁵ (World Bank, 2004d, para. 10)	Yes	MMR was 408 in 2003 (World Bank, 2004d, para. 10), not far from the MDG target.
Malaria: Have halted by 2015, and begun to reverse, the incidence of malaria	Unlikely	No evidence that the actions taken hitherto have reduced incidence
Environment: Integrate the principles of sustainable development into country policies and programs and reduce the loss of environmental resources	Potentially	n.a.

¹⁷⁶ For general information about the MDGs, see see <http://www.undp.org/mdg/countryreports.html>.

Annex Table 3. Employment by employer type, 1996/7 and 2002/3 (% of labor force)

	1996/7			2002/3		
	Rural	Urban	All	Rural	Urban	All
Government/public enterprise	2.7	26.5	6.0	1.4	11.5	4.2
Private sector	2.2	14.3	3.9	1.8	12.7	4.8
Cooperative sector	0.1	0.4	0.1	0.0	0.2	0.1
Self-employment	46	40	45	48	40	46
Employer	0.2	1.0	0.3	1.4	10	3.6
Family labor	49	18	45	47	26	42
Total	100	100	100	100	100	100

Source: IAF 1996/7 and 2002/3, workings for the accompanying background paper by Fox *et al.* (2005). Note that the 1996/7 definition of "urban" was used in both 1996/7 and 2002/3. This is because the urban areas were extended by some 50 percent in the intervening period, making the two definitions incomparable. Age group: 10-59 years.

Annex Table 4. GDP per capita, and GDP shares by province/region, 2000

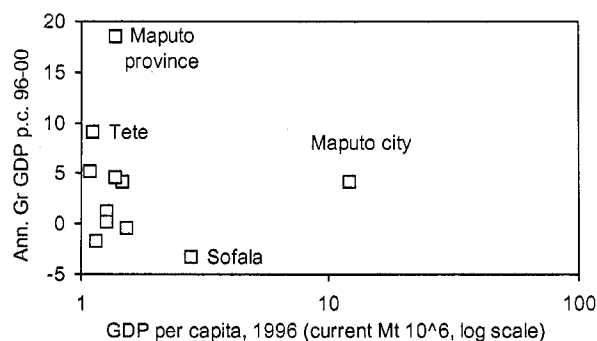
	GDP per capita, current US\$		GDP share, 2000
	1996	2000	
Niassa	96	105	3
Cabo Delgado	112	105	5
Nampula	130	137	14
Zambézia	102	85	9
Tete	98	124	5
Manica	121	130	5
Sofala	247	193	9
Inhambane	135	118	5
Gaza	112	101	4
Maputo Province	122	214	3
Maputo City	1079	1137	37
Mozambique	185	188	100

Source: UNDP (2001), p. 25, graph 2.8.

Annex Table 5. Growth of GDP by province/region, 1997-2000

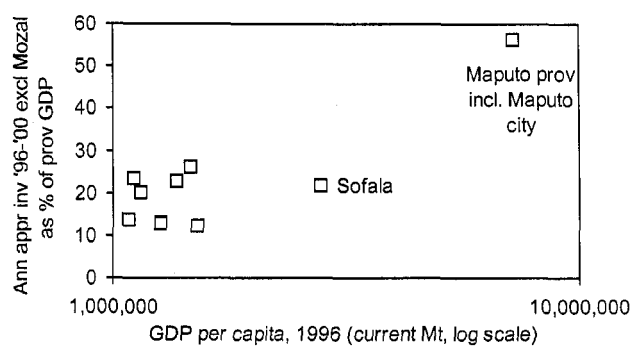
	1997	1998	1999	2000	Average
North	19.0	10.5	3.5	0.9	8.5
Niassa	18.7	3.9	11.5	6.9	10.3
Cabo Delgado	1.5	23.4	3.9	-1.3	6.9
Nampula	25.9	7.6	1.9	0.5	9.0
Center	10.0	7.1	10.2	-3.4	6.0
Zambézia	7.7	-3.4	8.1	0.8	3.3
Tete	19.8	1.1	12.5	16.6	12.5
Manica	21.9	28.1	11.9	-11.1	12.7
Sofala	4.3	10.3	10.2	-10.5	3.6
South	8.3	17.2	7.8	4.8	9.5
Inhambane	8.3	8.4	10.0	-1.3	6.3
Gaza	19.1	14.1	9.5	-17.1	6.4
Maputo Province	45.3	5.6	12.2	26.5	22.4
Maputo City	3.5	20.5	6.8	5.9	9.2
Mozambique	11.1	12.6	7.5	1.6	8.2

Source: UNDP (2001), p. 25, table 2.2.



Annex Figure 6. GDP per capita in 1996 and annual growth of GDP per capita 1996-2000, by province¹⁷⁷

¹⁷⁷ GDP per capita in 1996: in current Mt. Growth refers to average annual growth in the period 1996-2000. The CPI was used to exclude the effect of inflation. Data source: UNDP (2001).



Annex Figure 7. GDP per capita in 1996 and annual approved investment 1996-2000 as a percentage of GDP, by province¹⁷⁸

Annex Table 8. Macroeconomic impact of the mega-projects, 1998-2002

	1998	1999	2000	2001	2002	Avg 98-02
	<i>Millions of USD unless otherwise indicated</i>					
Value added	13	67	80	183	264	122
as % of GDP	0.3	1.6	2.1	5.3	7.3	3.2
Fiscal accounts	0.0	0.3	1.7	2.0	5.4	1.6
as % of fiscal revenues		0.1	0.3	0.4	1.1	0.4
Overall BoP	13	64	91	202	197	113
as % of GDP	0.3	1.6	2.4	5.9	5.5	3.0
Exports of goods	0.0	76	127	441	437	216
as % of total exports of goods		28	35	63	64	48

Source: See Benito-Spinetto and Moll (2005).

¹⁷⁸ GDP per capita in 1996: in current Mt, log scale; data source: UNDP (2001). Approved investment excludes the Mozal investment in the case of Maputo province, and is taken as a percentage of GDP of the relevant province; data source: from Table A.4 in World Bank (2003a), p. 60, in turn from data provided by the Centro de Promoção de Investimentos.

Annex Table 9. Projected macroeconomic impact of the mega-projects (2003-2010)

	2003	2004	2005	2006	2007	2010	Avg.03-10
<i>In millions of US\$ unless otherwise indicated</i>							
1. Including existing projects							
Value added	352	484	560	653	708	729	618
as % of GDP	8.2	10	10	11	11	8.7	10.0
Fiscal accounts	7.6	13	36	40	42	44	33
as % of fiscal revenues	1.2	1.9	4.3	4.3	4.0	3.1	3.0
Overall BOP	219	161	221	267	320	282	269
as % of GDP	5.1	3.3	4.1	4.5	4.9	3.4	4.0
Exports of goods	652	963	1106	1258	1338	1367	1176
as % of exports of goods	71	76	74	78	77	76	75
2. Including existing and new projects							
Value added	352	484	584	670	807	961	761
as % of GDP	8.2	10	11	11	12	11	11
Fiscal accounts	7.6	13	36	40	50	71	48
as % of fiscal revenues	1.2	1.9	4.3	4.3	4.8	4.8	4.5
Overall BOP	219	160	244	285	370	387	328
as % of GDP	5.1	3.3	4.5	4.8	5.6	4.5	4.9
Exports of goods	652	963	1106	1258	1498	1941	1475
as % of exports of goods	71	76	74	78	79	82	79

Source: See Benito-Spinetto and Moll (2005).

Annex Table 10. Distribution of projected foreign aid by sector

	1995	1996	1997	1998	1999	2000	2001	2002
<i>P e r c e n t a g e</i>								
Agriculture	17	11	14	14	16	14	23	16
Fishing	1.3	0.6	1.2	0.8	1.3	0.6	0.4	0.6
Mineral resources	0.8	1.6	0.5	0.3	0.3	0.2	0.4	0.8
Industry and Commerce	2.0	1.3	0.7	1.1	0.4	0.3	0.5	0.3
Public works and housing, o/w:	24	16	17	17	14	17	15	18
Water	5.6	3.5	2.8	3.9	3.1	6.3	5.5	4.0
Roads	18	12	14	13	11	11	9.3	14
Other public works	0.8	0.5	0.2	0.1	0.0	0.2	0.2	0.0
Transport	7.1	4.1	3.2	4.4	3.8	2.5	2.1	7.0
Energy	6.2	14.9	11.0	6.3	9.9	4.5	7.4	7.3
Telecommunication	2.1	2.8	1.9	4.0	1.2	2.0	2.3	3.0
Education and culture	8.4	9.2	12.2	9.3	11.9	9.8	10.1	9.9
Health	11	8.9	9.6	9.3	11	12	17	14
Tourism	4.1	4.9	4.4	4.5	7.1	5.4	2.0	4.3
Environment	0.4	0.6	1.3	3.2	3.1	1.8	1.0	1.5
Public administration	5.6	8.3	8.0	6.0	6.6	5.3	5.8	7.3
Social	0.2	0.4	0.6	0.2	0.6	0.4	0.7	0.3
Other	9.4	16	15	19	14	24	13	9.4
Total	100	100	100	100	100	100	100	100

Sources: Departamento de Cooperação Internacional, Ministry of Planning and Finance.
^a Aid here includes grants and borrowing. It excludes program assistance as this cannot be assigned to specific sectors.

Annex Table 11. Non-monetary measures of welfare

	All		1 st quintile		2 nd quintile		3 rd quintile		4 th quintile		5 th quintile		Urban	Rural
	1996	2002	1996	2002	1996	2002	1996	2002	1996	2002	1996	2002	2002	2002
<i>Food share</i>	68	61	67	60	70	63	70	64	69	64	63	52	50	66
<i>Durable goods</i>														
Radio	29	65	20	59	26	63	25	65	28	66	38	68	65	65
TV	5	9	1	4	2	5	3	5	4	7	11	19	23	1
Clock	24	43	14	34	21	38	24	35	23	41	32	58	60	34
Motorbike	1	2	0	0	0	1	1	1	1	1	3	4	3	1
Bicycle	13	40	10	28	15	35	12	39	14	44	15	47	23	50
Housing ^a														
Durable wall	31	85	23	74	24	83	31	88	32	87	39	90	87	85
Durable roof	16	25	11	27	12	25	16	19	15	18	23	34	56	11

^a Durable wall includes stone and wood walls; durable roof includes concrete, tile, lusalite and zinc roofs. The non-durable walls or roofs consist of natural materials such as reed and leaf. They also include the category "other".

^b The significance of the difference between both years was tested (for the full sample) and proved significantly different at 1 percent for all variables.

Source: Fox *et al.* (2005).

Annex Table 12. Access to services (percentage)

	All ^f		1 st quintile		2 nd quintile		3 rd quintile		4 th quintile		5 th quintile		Urban	Rural
	1996	2002	1996	2002	1996	2002	1996	2002	1996	2002	1996	2002	2002	2002
<i>Water</i>														
Use safe water	24	37	24	38	20	32	20	35	22	34	30	45	64	27
<30' to water ^g	69	90	71	85	69	89	69	91	68	90	71	94	97	87
<i>Sanitation</i>														
Latrine ^a	35	45	29	47	33	46	33	41	35	38	41	52	72	33
<i>Electricity</i>														
Used in HH ^b	4	7	1	1	1	3	1	4	4	5	11	18	22	0
<i>Health</i>														
Incidence recent illness ^c	11	16	9	14	11	15	11	16	13	18	14	17	14	17
Seeking help ^d	51	56	46	53	49	53	49	56	54	53	54	66	74	50
<30' health post ^d	-	35	-	33	-	30	-	35	-	32	-	42	68	21
<i>Education</i>														
Enrolled 7-12	51	93	39	90	48	92	48	93	58	93	62	95	96	91
Enrolled 12-18	41	69	32	68	39	66	39	70	47	71	49	69	75	64
<30' primary ^e	-	73	-	72	-	73	-	72	-	73	-	74	91	65
<30' secondary	-	15	-	14	-	14	-	12	-	12	-	23	41	4

^a use of latrine includes latrines, improved latrines and better sanitation types such as toilet and bathroom

^b electricity used for cooking and/or lighting

^c incidence ill is not fully comparable between both survey years: recall period 1996/7 was one month while recall period 2002/3 was two weeks

^d help : went for medical advice when sick, seeking help from traditional healers excluded

^e distance (time) to sanitary post and school : only available at the household level for 2002 (in 1996 the question was included in the community questionnaire)

^f The significance of the difference between both years was tested for the full sample and significant at 1 percent for all variables

^g 30' refers to 30 minutes.

Source: Fox *et al.* (2005).

Annex Table 13. Health outcome indicators

	TFR		Infant mortality		Under 5 mortality		Stunting		Wasting	
	1997	2003	1997	2003	1997	2003	2003	2003	2003	2003
Total	5.6	5.5	147	124	219	178	41.0	41.0	4.0	4.0
Urban	5.1	4.4	101	95	150	143	29.2	29.2	3.1	3.1
Rural	5.8	6.1	160	135	237	192	45.7	45.7	4.3	4.3
Niassa	5.9	7.2	134	140	213	206	47.0	47.0	1.3	1.3
Cabo Delgado	4.9	5.9	123	177	165	240	55.6	55.6	4.1	4.1
Nampula	5.6	6.2	216	164	319	220	42.1	42.1	6.0	6.0
Zambezia	5.4	5.3	129	89	183	123	47.3	47.3	5.2	5.2
Tete	7.0	6.9	160	125	283	206	45.6	45.6	1.6	1.6
Manica	7.6	6.6	91	128	159	184	39.0	39.0	2.8	2.8
Sofala	6.1	6.0	173	149	242	206	42.3	42.3	7.6	7.6
Inhambane	5.5	4.9	151	91	193	149	33.1	33.1	1.3	1.3
Gaza	5.9	5.4	135	92	208	156	33.6	33.6	6.7	6.7
Maputo province	5.0	4.1	92	61	147	108	23.9	23.9	0.5	0.5
Maputo City	4.0	3.2	49	51	97	89	20.6	20.6	0.8	0.8
Poorest quintile ^a	-	6.3	188	143	278	196	49.3	49.3	5.6	5.6
Poorer quintile	-	6.1	136	147	214	200	46.7	46.7	4.3	4.3
Middle quintile	-	6.3	144	128	216	203	46.2	46.2	3.0	3.0
Richer quintile	-	5.2	134	106	187	155	35.2	35.2	3.9	3.9
Richest quintile	-	3.8	95	71	145	108	20.0	20.0	2.5	2.5

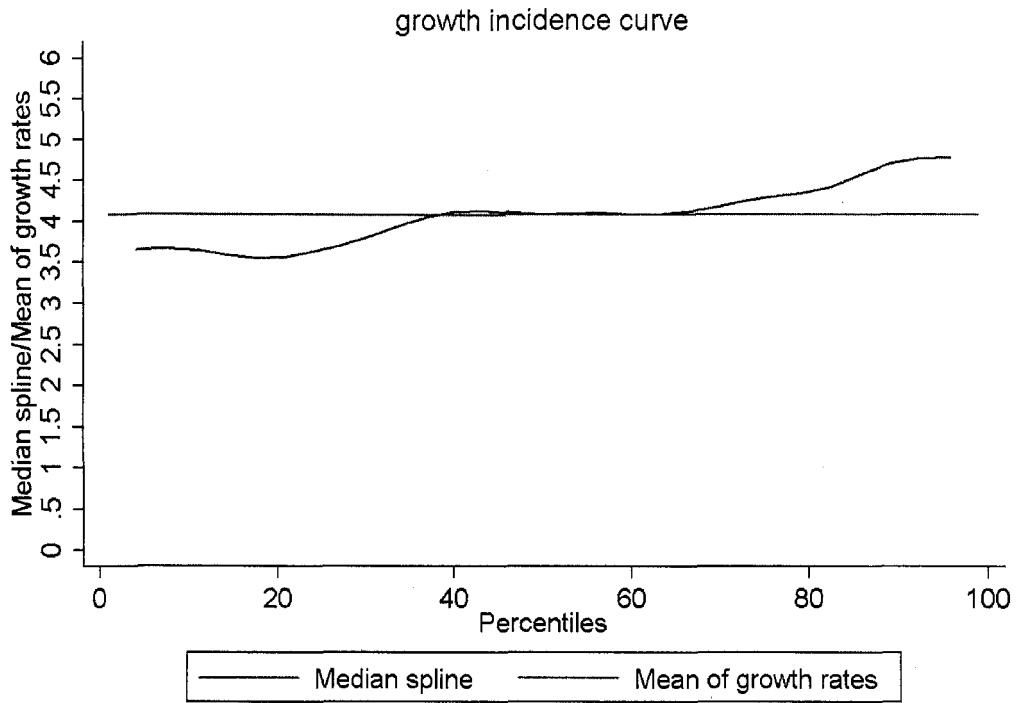
Source: Fox *et al.* (2005); in turn from Demographic and Health Survey, 1997 and 2003; Gwatkin, *et al.*, 2000

^a Quintiles are wealth quintiles

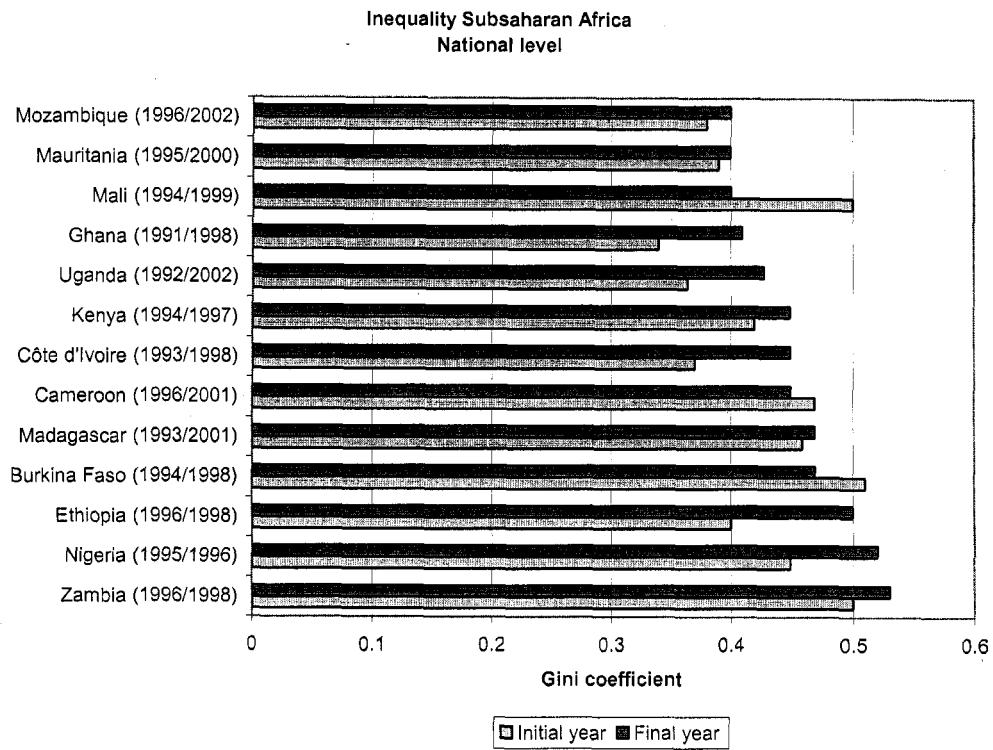
TFR: total fertility rate for ages 15-49, expressed per woman

Stunting (height-for-age): percentage of children under age 5 who are below -2 standard deviations (SD) from the median of the International Reference Population (not comparable to 1997)

Wasting (weight-for-height): percentage below -2 SD (not comparable to 1997)



Annex Figure 14. Growth incidence curve, 1996/7 to 2002/3



Annex Figure 15. Inequality in sub-Saharan Africa

Annex Table 16. Decomposing changes in poverty induced by changes in mean consumption and inequality (by geographical and sectoral dimensions)

	Total change in poverty	Change in mean consumption	Change in inequality	Residual
National decomposition				
Total change in poverty 2002-1996	-15.1	-16.9	1.3	0.5
Regional decomposition				
Change in poverty in the North	-10.5	-11.7	3.4	-2.3
Change in poverty in the Center	-28.2	-28.7	2.2	-1.7
Change in poverty in the South	0.7	-2.2	2.9	0.04
Regional+ urban decomposition				
Change in poverty in North urban	-40.5	-33.1	-11.4	4.0
Change in poverty in North rural	-5.1	-6.3	4.2	-3.0
Change in poverty in Center urban	-20.3	-25.3	2.3	2.8
Change in poverty in Center rural	-29.2	-29.0	2.3	-2.5
Change in poverty in South urban	7.1	-1.2	8.6	-0.4
Change in poverty in South rural	-3.2	-2.8	-0.9	0.5
Urban-rural				
Change in urban poverty	-10.1	-11.3	2.0	-0.8
Change in rural poverty	-15.8	-15.7	-0.6	0.5
Urban-rural (consistent definition)				
Change in urban poverty	-12.1	-13.6	1.4	0.2
Change in rural poverty	-15.9	-18.4	1.4	1.1
Aggregate sectors				
Change in agriculture poverty	-14.4	-13.0	-0.7	-0.7
Change in industry poverty	-8.9	-19.3	6.9	3.5
Change in service1 poverty	-9.2	-11.2	-0.8	2.7
Change in service2 poverty	-19.9	-22.6	0.8	1.9
Head employment status				
Head is public employee	-24.9	-28.8	-0.1	4.1
Head is private employee	-12.5	-20.4	4.2	3.6
Head self-employed	-14.6	-15.1	0.3	0.2
Head is employer/co-operative	2.8	11.0	-14.2	6.0
Head in family business	-20.9	-16.3	0.5	-5.1
<p><i>Source:</i> IAF 1996/7 and 2002/3, as computed by Fox <i>et al.</i> (2005). Individuals are assigned to the sector of employment of the household head. If the head is not employed they are assigned to the sector of employment of the oldest adult. If nobody works (less than 5% of all cases) they are assigned to agriculture. 'Service 1' is trade, transports and services; 'service 2' is health, education, and public administration. North is Niassa, Cabo Delgado, Nampula; Center is Sofala, Tete, Manica, Zambezia; South is Gaza, Inhambane, Maputo Province, Maputo City. <i>Method.</i> Define poverty lines $l_i, i = 1, 2$ for the two periods. \bar{c}_i, with n_i rows, is the vector of consumption of households. \bar{w}_i is a vector of ones. The poverty rate in period i is $p_i = (\bar{c}_i < l_i)' \bar{w}_i / n_i$. Starting from period i, simulate the poverty rate in period j, preserving the distribution of period i but with the average consumption of period j, by multiplying all households' consumption by the ratio of mean consumption in periods j and i, thus: $p_{ji} = (\bar{c}_j (\bar{c}_i' \bar{w}_j / n_j) / \bar{c}_i' \bar{w}_i / n_i) < l_i)' \bar{w}_i / n_i$. In the same way, simulate p_{ij}. Then the change in poverty between i and j, $p_j - p_i$, can be written, starting from period i, as $(p_{ji} - p_i) + (p_{ij} - p_i) + \text{residual}$, where the first element is the growth component and the second the distribution component. Equivalently, starting from period j, it is $(p_j - p_{ij}) + (p_j - p_{ji}) + \text{residual}$. Then the two growth components are averaged, the two distribution components are averaged, and the two residual components are averaged, yielding the numbers above.</p>				

Annex Table 17. Decomposition of the change in poverty by geographical and sectoral dimensions

	<i>Mozambique</i>	<i>North</i>	<i>Center</i>	<i>South</i>
Poverty in 1996	69.1	65.9	73.4	66.1
Poverty in 2002	54.1	55.4	45.2	66.8
Total change in poverty 2002-1996	-15.1	-10.5	-28.2	0.7
Regional decomposition				
Change in poverty in the North	-3.4			
Change in poverty in the Center	-12.0			
Change in poverty in the South	0.2			
Total intraregional component	-15.2			
Population shift (regional migration)	-0.03			
Interaction component (residual)	0.1			
Provincial decomposition				
Change in poverty in Niassa	-1.0	-3.0		
Change in poverty in Cabo Delgado	0.5	1.5		
Change in poverty in Nampula	-2.9	-9.1		
Change in poverty in Zambezia	-4.6		-11.0	
Change in poverty in Tete	-1.6		-3.7	
Change in poverty in Manica	-1.1		-2.6	
Change in poverty in Sofala	-4.7		-11.1	
Change in poverty in Inhambane	-0.2			-0.8
Change in poverty in Gaza	-0.4			-1.5
Change in poverty in Maputo	0.3			1.2
Change in poverty in Maputo city	0.4			1.4
Total intraprovincial component	-15.4	-10.6	-28.4	0.4
Population shift (provincial migration)	0.02	-0.1	-0.1	0.4
Interaction component (residual)	0.3	0.2	0.3	-0.1
Urban-rural (consistent 1996 definition)				
Change in urban poverty	-2.5	-7.1	-2.4	2.7
Change in rural poverty	-12.7	-4.2	-25.8	-1.9
Total intrasectoral component	-15.1	-11.3	-28.2	0.8
Population shift (urban-rural migration)	0.0	-0.6	-0.1	-0.1
Interaction component (residual)	-0.0	1.3	0.1	0.0
Aggregate sectors				
Change in agriculture poverty	-11.3	-6.1	-21.9	-0.4
Change in industry poverty	-0.7	0.0	-1.8	1.1
Change in service1 poverty	-0.9	-0.6	-2.3	1.3
Change in service2 poverty	-0.8	-1.2	-0.9	0.1
Total intrasectoral component	-13.7	-7.9	-26.9	2.1
Population shift (sector shift)	-1.6	-1.4	-1.0	-1.8
Interaction component (residual)	0.2	-1.2	-0.3	0.4
<p>Individuals are assigned to the sector where the household head is employed. If the head is not employed they are assigned to the sector of employment of the oldest adult. If nobody works (less than 5% of all cases) they are assigned to agriculture; 'Service 1' includes trade, transports and services; 'service 2' includes health, education, and public administration. North includes Niassa, Cabo Delgado, Nampula; Center includes Sofala, Tete, Manica, Zambezia; South includes Gaza, Inhambane, Maputo Province, Maputo City.</p> <p><i>Method.</i> Define matrices of poverty rates \bar{p}_i, where i is time and the rows ($p_{i1}, p_{i2}, p_{i3}, \dots$) are regions or sectors. Similarly define matrices of population shares \bar{s}_i. The national poverty rate in period i is $\bar{p}_i' \bar{s}_i$. The change in poverty rates between periods 1 and 2 is $\bar{p}_2' \bar{s}_2 - \bar{p}_1' \bar{s}_1$ (= -15.1% above). This is trivially decomposed as $a + b + c$, where $a = (\bar{p}_2 - \bar{p}_1)' \bar{s}_1$ is the intra-sectoral effect, $b = \bar{p}_1' (\bar{s}_1 - \bar{s}_2)$ is the population shift effect, and $c = (\bar{p}_2 - \bar{p}_1)' (\bar{s}_2 - \bar{s}_1)$ is the interaction effect.</p>				

Annex Table 18. Household head employment sector and contract (1996/7 and 2002/3)

	All		1 st quintile		2 nd quintile		3 rd quintile		4 th quintile		5 th quintile		Urban		Rural	
	96	02	96	02	96	02	96	02	96	02	96	02	96	02	96	02
Agriculture	82	75	87	80	86	80	82	81	84	79	74	60	42	89		
Mining	1	1	1	1	1	1	1	0	1	1	1	1	1	1		
Manufacturing	4	1	4	1	4	1	3	1	3	1	5	2	2	1		
Construction	1	3	1	3	1	3	2	4	2	2	1	3	7	1		
Transport	2	2	1	1	1	1	1	1	1	1	2	3	4	0		
Trade	4	8	2	5	2	7	5	6	4	7	6	14	18	4		
Services	3	6	2	6	2	4	2	5	2	4	5	8	15	2		
Education	1	2	1	1	1	1	1	1	1	3	2	5	4	2		
Health	1	1	1	1	0	1	1	0	1	0	1	1	2	0		
Public admin.	2	2	1	1	1	1	2	1	1	2	3	4	6	0		

Source: Fox *et al.* (2005), Table 14, p. 40.

Annex Table 19. Consumption regressions

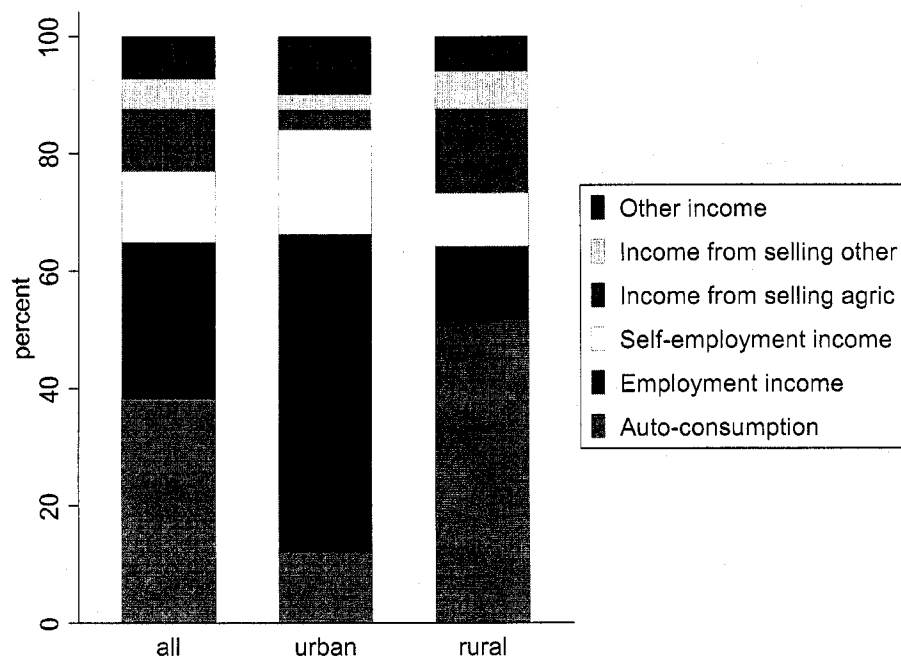
Dep. variable: ln consumption per adult equivalent	1996/7				2002/3			
	Urban		Rural		Urban		Rural	
	Coef.	Signif.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
<i>HH demographics</i>								
No of children 0-5	-0.067	***	-0.051	***	-0.061	***	-0.045	***
No of children 6-9	-0.146	***	-0.089	***	-0.093	***	-0.076	***
No of children 10-14	-0.030	**	-0.112	***	-0.106	***	-0.108	***
No of men 15-59	-0.081	***	-0.091	***	-0.003		-0.064	***
No of women 15-59	-0.004		-0.054	***	-0.021	**	-0.028	***
No of adult >60	0.025		-0.089	***	0.025		-0.028	
Head female	-0.461	***	-0.122		0.092		-0.186	
Any disabled adults	-0.171	***	-0.010		-0.052		-0.100	***
Any disabled children	-0.069		-0.039		0.020		-0.052	
Age head	0.024		-0.009	***	0.006		-0.007	**
Age head square	-0.000	***	0.000	***	-0.000		0.000	**
<i>Head marital status^a (base category=head single)</i>								
Head married	-0.253	***	-0.142	**	-0.027		-0.141	
Head polygamous	-0.192	*	-0.091		0.001		-0.024	
Head divorced	-0.242	*	-0.001		0.030		-0.058	
Head widowed	-0.389	***	-0.113		-0.277	**	-0.127	
<i>Added effect of female head on marital status</i>								
Head female*married	0.584	***	0.134		0.102		0.385	**
Head female*polyg	0.285		0.081		0.036		0.199	
Head female*divorce	0.390	**	-0.011		-0.209		0.057	
Head female*widow	0.632	***	0.085		0.237		0.171	
<i>Head education (base category=head no education)</i>								
Head some education	0.190	***	0.070	***	0.129	***	0.062	***
Head completed ep1	0.409	***	0.184	***	0.234	***	0.131	***
Head completed ep2	0.615	***	0.159	***	0.451	***	0.298	***
Head completed es1	0.712	***	0.458	***	0.715	***	0.695	***
Head over es1	0.996	***	0.688	***	1.142	***	0.542	***
<i>Employment sector (base category=head in agriculture)</i>								
Head mines	-0.096		0.276	***	0.231	***	0.174	
Head manufacturing	0.156	***	0.014		0.014		0.275	***
Head construction	0.138	**	0.072		0.036		0.038	
Head transport	0.225	***	0.362	***	0.293	***	0.660	***
Head trades	0.343	***	0.334	***	0.304	***	0.296	***
Head services	0.232	***	0.372	***	0.113	***	0.158	***
Head education	0.098		0.256	***	-0.072		0.283	***
Head health	-0.025		0.292	***	0.267	***	0.341	***
Head public administr	0.124	**	0.355	***	0.156	***	0.132	
Constant	9.016	***	9.226	***	9.049	***	10.174	***
District fixed effects ^b	yes		yes		yes		yes	
Observations	2428		5782		4001		4695	
Adj Rsq	0.340		0.392		0.364		0.374	

*** significant at 1%, ** significant at 5%, * significant at 10%

^a Head marital status: Including interaction terms with the gender of the household head. See further explanation in Fox *et al.* (2005).

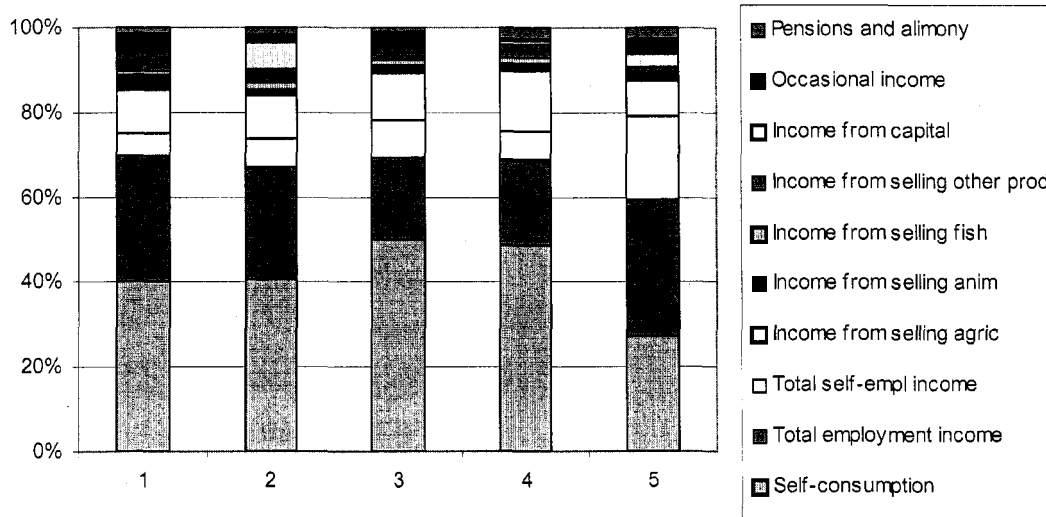
^b In 1996, 128 districts were covered; in 2002, 144 districts.

Source: Fox *et al.* (2005).



Annex Figure 20. Sources of cash income (excluding private transfers) and self-consumption, by location, 2002/3¹⁷⁹

¹⁷⁹ Source: Fox *et al.* (2005), Graph 4, p. 45.



Annex Figure 21. Sources of cash income (excluding private transfers) and self-consumption, by quintile, 2002/3¹⁸⁰

¹⁸⁰ Source: Fox *et al.* (2005), Graph 4, p. 45.

Annex Figure 22. Poverty rates (based on per adult equivalent consumption) by sector of employment of the household head

	1996				2002			
	North	Centre	South	Total	North	Centre	South	Total
Mining	50.5	69.1	68.8	67.7	55.1	38.2	41.7	43.5
Manufacturing	55.8	79.6	52.3	61.9	63.1	37.7	72.4	52.1
Construction	67.8	77.4	55.8	63.7	58.8	41.3	67.9	59.1
Transport	53.9	60.6	50.7	53.9	33.0	30.3	41.2	35.2
Trade	51.0	62.4	50.3	54.3	38.4	28.0	58.2	42.1
Services	37.3	62.2	52.6	52.3	30.2	37.9	62.1	50.1
Education	59.6	54.0	41.8	53.0	24.7	14.6	47.4	27.1
Health	50.3	67.0	60.1	61.0	51.1	32.3	47.9	43.0
Public Administration	70.3	52.1	38.6	49.4	24.6	39.0	41.6	35.1
Agriculture	67.8	74.8	76.0	72.5	60.8	49.0	75.3	58.1
Total	65.9	73.4	66.1	69.1	55.4	45.3	66.8	54.1
<i>Aggregate sectors</i>								
Agriculture	67.8	74.8	76.0	72.5	60.8	49.0	75.3	58.1
Industry								
(mining, manuf., constr.)	58.2	78.9	58.4	63.4	58.5	39.2	64.5	54.5
Services 1								
(trade, transport, services)	45.7	62.0	51.0	53.6	35.9	31.8	58.4	44.3
Services 2								
(health, education, PA)	63.7	56.4	44.4	52.9	26.3	25.7	45.4	33.0
Total	65.9	73.4	66.1	69.1	55.4	45.3	66.8	54.1

 Source: IAF 1996/7 and 2002/3, see Fox *et al.* (2005).

All individuals in the same household are assigned to the sector of employment of the household head. If the head is not employed they are assigned to the sector of employment of the oldest adult. If nobody works (less than 5% of all cases) they are assigned to agriculture.

Annex Table 23. Employment by sector, by rural/urban location and by poor/non-poor

	1996/97						2002/03					
	Rural		Urban		All		Rural		Urban		All	
	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP
Ag., for., fish.	96.0	93.3	68.5	49.6	91.6	84.1	92.6	86.8	47.3	31.6	85.1	75.9
Mines	0.3	0.5	1.3	1.0	0.4	0.6	0.3	0.6	0.8	0.9	0.4	0.6
Manufacturing	1.2	1.2	5.6	8.6	1.9	2.8	0.3	0.6	1.9	2.0	0.6	0.9
Construction	0.5	0.5	2.9	3.2	0.8	1.1	1.4	1.1	6.7	4.6	2.3	1.8
Transport	0.2	0.3	2.5	5.0	0.6	1.3	0.3	0.7	2.3	4.5	0.6	1.4
Trade	0.8	1.7	9.3	14.5	2.2	4.4	3.0	5.1	19.7	22.7	5.8	8.5
Services	0.4	1.0	5.7	9.0	1.3	2.7	1.4	2.3	16.1	22.0	3.8	6.2
Education	0.3	0.8	0.9	2.5	0.4	1.2	0.4	2.0	1.9	4.4	0.6	2.5
Health	0.2	0.3	1.0	1.6	0.3	0.6	0.2	0.4	0.4	1.9	0.2	0.7
Public admin.	0.2	0.4	2.3	5.2	0.5	1.4	0.2	0.6	2.8	5.4	0.6	1.6

Source: Fox *et al.* (2005), in turn from IAF 2002/3.
Note that this table includes *domésticos* in the agricultural labor force.

Annex Table 24. Sector employment rates, by sex and urban/rural (percentage)

	1996			2002			2002	
	All	Men	Women	All	Men	Women	Urban	Rural
Agriculture	89.2	80.7	95.9	80.7	68.7	90.1	51.3	93.0
Mines	0.5	1.1	0.0	0.5	1.0	0.1	0.9	0.4
Manufacturing	2.2	4.2	0.6	0.7	1.5	0.1	1.6	0.4
Construction	0.9	2.0	0.1	2.0	4.5	0.1	4.7	0.9
Transport	0.8	1.7	0.1	1.0	2.2	0.1	2.9	0.2
Trade	2.9	4.1	1.9	7.1	9.6	5.1	17.2	2.9
Services	1.7	3.1	0.6	5.0	7.4	3.1	14.1	1.1
Education	0.7	1.1	0.3	1.5	2.6	0.7	3.0	0.9
Health	0.4	0.5	0.4	0.4	0.5	0.4	1.1	0.2
Public administration	0.8	1.6	0.2	1.1	2.1	0.3	3.2	0.2
All	100	100	100	100	100	100	100	100

Sample: all those aged 10-59 and working.
Source: Fox *et al.* (2005), Table 19, p. 46.

Annex Table 25. Type of contract, by industry and by urban/rural in 2002 (men and women)

	Receiving a wage	Casual workers	Family worker	Self- employed	All
	<i>p e r c e n t a g e</i>				
Agriculture	1.7	0.5	43.9	53.9	100
Mines	59.5	5.4	0.9	34.3	100
Manufacturing	71.5	6.8	1.6	20.1	100
Construction	50.1	37.2	0.8	11.8	100
Transport	75.4	11.1	2.0	11.6	100
Trade	19.7	2.8	7.3	70.3	100
Services	70.7	8.5	13.0	7.8	100
Education	99.1	0.0	0.9	0.0	100
Health	85.5	0.9	0.7	13.0	100
Public administration	100.0	0.0	0.0	0.0	100
Urban	30.2	5.3	23.2	41.3	100
Rural	3.9	0.6	44.9	50.6	100
All	16.1	2.6	33.7	47.6	100
Sample: all those aged 10-59 and working. Source: Fox <i>et al.</i> (2005)					

Annex Table 26. Type of contract, by industry and by urban/rural in 2002 (men)

	Receiving a wage	Casual workers	Family worker	Self- employed	All
	<i>p e r c e n t a g e</i>				
Agriculture	3.2	0.8	22.0	74.0	100
Mines	60.1	5.9	0.0	34.0	100
Manufacturing	71.5	7.4	1.5	19.6	100
Construction	49.4	37.7	0.8	12.1	100
Transport	74.9	11.6	1.8	11.7	100
Trade	22.3	3.7	5.2	68.8	100
Services	75.9	10.8	4.2	9.2	100
Education	99.9	0.0	0.1	0.0	100
Health	82.8	1.8	1.4	14.0	100
Public administration	100.0	0.0	0.0	0.0	100
Urban	45.2	9.4	10.9	34.6	100
Rural	7.8	1.2	19.4	71.6	100
All	23.4	4.3	15.1	57.2	100
Sample: all those aged 10-59 and working. Source: Fox <i>et al.</i> (2005)					

Annex Table 27. Type of contract, by industry and by urban/rural in 2002 (women)

	Receiving a wage	Casual workers	Family worker	Self- employed	All
		<i>p</i>	<i>e</i>	<i>r</i>	<i>c</i>
		<i>e</i>	<i>n</i>	<i>t</i>	<i>a</i>
				<i>g</i>	<i>e</i>
Agriculture	0.3	0.2	64.5	35.1	100
Mines	52.5	0.0	10.0	37.5	100
Manufacturing	72.0	0.0	2.6	25.5	100
Construction	88.1	11.9	0.0	0.0	100
Transport	85.2	0.0	6.2	8.6	100
Trade	15.2	1.3	10.7	72.8	100
Services	60.1	3.7	31.2	5.1	100
Education	96.4	0.0	3.6	0.0	100
Health	88.1	0.0	0.0	12.0	100
Public administration	100.0	0.0	0.0	0.0	100
Urban	14.3	1.0	36.3	48.4	100
Rural	0.9	0.2	65.0	34.0	100
All	7.1	0.5	56.7	35.8	100

Sample: all those aged 10-59 and working.
Source: Fox *et al.* (2005).
Note: There is no fully comparable question in the 1996/97 IAF survey. In 1996/97 no distinction was made between receiving a wage and being a casual worker. When comparing the self-employed category (which was a separate category in both surveys) the total percentage does not change over both years. The percentage for men decreases by 0.1% and for women increases by 0.7%.

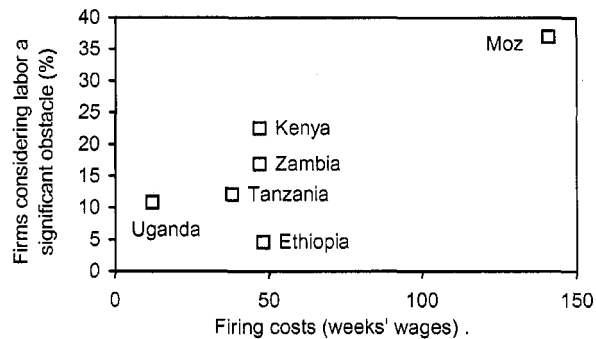
Annex Table 28. Type of contract, by industry, location and poor/non-poor, 2002/3

	POOR					NON-POOR				
	Wage earner	Casual worker	Family worker	Self- empl.	All	Wage earner	Casual worker	Family worker	Self- empl.	All
Ag., for., fish.	1.4	0.7	51.9	46.0	100	1.5	0.1	46.1	52.3	100
Mines	71.0	1.9	6.5	20.6	100	57.3	6.3	2.2	34.2	100
Manufacturing	67.5	9.1	1.3	22.1	100	72.5	4.0	1.5	22.0	100
Construction	44.2	42.6	0.8	12.4	100	58.5	27.5	0.4	13.5	100
Transport	77.8	20.8	-	1.5	100	73.4	8.5	2.6	15.5	100
Trade	16.5	3.9	6.1	73.5	100	19.9	3.7	8.6	67.8	100
Services	76.9	8.5	5.2	9.4	100	65.4	7.7	20.1	6.8	100
Education	100.0	-	-	-	100	97.7	-	2.3	-	100
Health	64.6	5.5	2.1	27.8	100	86.8	-	2.3	11.0	100
Public admin.	100.0	-	-	-	100	100.0	-	-	-	100
Urban	25.1	6.6	27.4	40.8	100	38.7	4.6	20.3	36.5	100
Rural	3.3	0.9	50.3	45.4	100	5.2	0.4	43.6	50.8	100
All	8.9	2.4	44.5	44.3	100	15.0	1.6	36.8	46.6	100

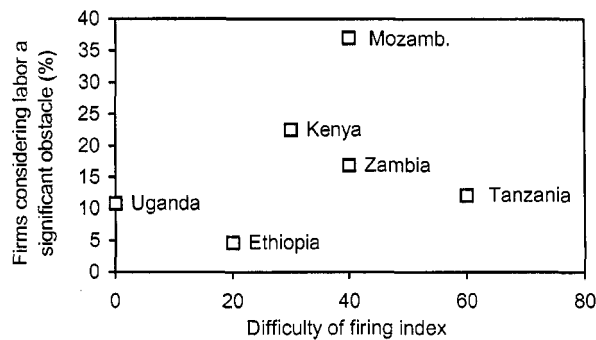
Source: Fox *et al.* (2005), in turn from IAF 2002/3.
Note: that this table includes *domesticos* in the agricultural labor force.

Annex Table 29. Comparative labor regulations and worker benefits

	Mozambique	South Africa	Lesotho	Namibia	Botswana
Normal working hours^a	48 per week	45 per week	45 per week	45 per week	48 per week
Overtime pay	<8 p.m. = 1.5x >8 p.m. = 2.0x ^c Max = 2 hrs/day ^b	Standard = 1.5x Sunday = 2.0x Max = 10 hrs/wk	Standard = 1.25x Holidays = 2.0x Max = 11 hrs/wk	Standard = 1.5x Sunday = 2.0x Max = 10 hrs/wk	Standard = 1.5x Sunday = 2.0x Max = 14 hrs/wk
Vacation	Yr 1 = 21 days > Yr 2 = 30 days, not including public holidays & sick leave	Yr 1 = 21 days > Yr 2 = 1 day/17 days worked	1 day/one-month worked	24 days	Yr 1 = 15 days >Yr 2 = 1.25 days/one-month worked
Sick leave	No limit Medical certificate provided after 30 days	<6 months worked = 1 day/26 days worked Every 3 years = # of days worked in 6 weeks Medical certificate provided	<6 months worked = zero >6 months worked = 12 days >12 months worked = 12 days full pay, 24 days half pay	>3 years worked = 30 days	14 days full pay Medical certificate provided
Maternity leave	Pre-birth = 20 days Post-birth = 40 days Full pay	Max = 4 months unpaid	Pre-birth = 6 wks Post-birth = 6 wks Unpaid leave	Pre-birth = 4 wks Post-birth = 4 wks Unpaid leave	Pre-birth = 6 wks Post-birth = 6 wks 25% of wage
Dismissal notice	3 mths	<6 mths worked = 1 wk >6 mths worked = 2 wks >12 mths worked = 4 wks	<6 mths worked = 1 wk >6 mths worked = 2 wks >12 mths worked = 1 mth	<4 wks worked = 1 day <12 mths worked = 1 wk >12 mths worked = 4 wks	<5 yrs worked = variable 5-10 yrs worked = 4 wks
Severance pay	3-6 mths worked = 45 days 6 mths – 3 yrs worked = 3 mths >3 yrs worked = 3 mths for every 2 yrs worked	1 yr worked = 1 wk	1 yr worked = 1 wk	1 yr worked = 1 wk	>5 yrs worked begin accrual
Source: SAL Consultoria e Investimentos, LDA (2002), Annex 2.					
^a Normal working hours as defined by law. In Mozambican law: Law No. 8/98, article 28: 1.					
^b In Mozambique: up to a maximum of 100 hours of overtime per year. Law No. 8/98, article 33:3.					
^c In Mozambique: overtime pay – in Law No. 8/98, Article 48:1.					



Annex Table 30. Firing costs and firm perceptions in sub-Saharan Africa¹⁸¹



Annex Table 31. Difficulty of firing and firm perceptions in sub-Saharan Africa¹⁸²

¹⁸¹ Firing costs from World Bank, *Doing Business in 2004*. See <http://rru.worldbank.org/DoingBusiness/ExploreTopics/HiringFiringWorkers/CompareAll.aspx?direction=asc&sort=2>. Firm perceptions of labor as a problem: from Alby *et al.* (2005). In turn from the RPED or ICAs. Indicates the percentage of firms which have associated an obstacle index of 3 or 4 to each issue, where 0 = no obstacle, 1 = minor obstacle, 2 = moderate obstacle, 3 = major obstacle, and 4 = very severe obstacle. The firm perception of labor as a problem for Mozambique was taken from World Bank (2003a), Table 2.33, p. 36, referring to the opinion about "Layoff procedures and cost of retrenchment".

¹⁸² Difficulty of hiring index from World Bank, *Doing Business in 2004*. See <http://rru.worldbank.org/DoingBusiness/ExploreTopics/HiringFiringWorkers/CompareAll.aspx?direction=asc&sort=2>. Firm perceptions of labor as a problem: from Alby *et al.* (2005). In turn from the RPED or ICAs. Indicates the percentage of firms which have associated an obstacle index of 3 or 4 to each issue, where 0 = no obstacle, 1 = minor obstacle, 2 = moderate obstacle, 3 = major obstacle, and 4 = very severe obstacle. The firm perception of labor as a problem for Mozambique was taken from World Bank (2003a), Table 2.33, p. 36, referring to the opinion about "Layoff procedures and cost of retrenchment".

Annex Table 32. Wage regressions, including agricultural workers, 2002/3

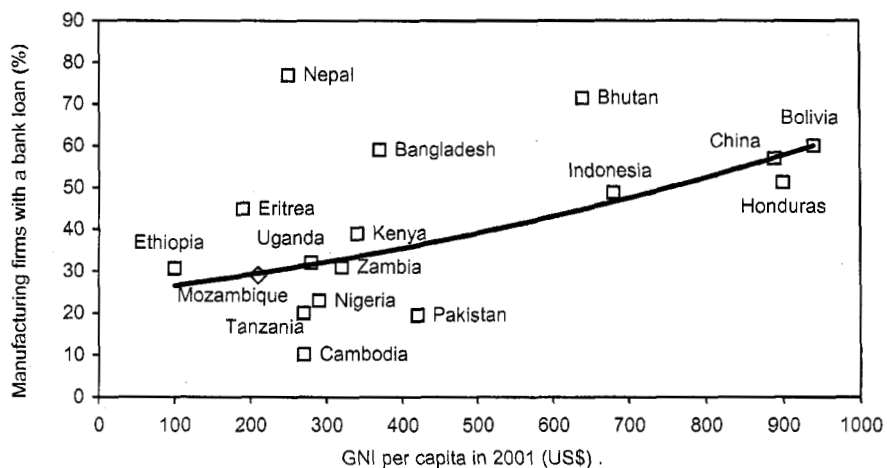
Dependent variable: ln weekly wage	All		Men		Women		Sig of difference
	Coeff.	Sig	Coeff	Sig	Coeff.	Sig	
Age	0.060	***	0.063	***	0.055	***	
Age squared	-0.001	***	-0.001	***	-0.001	**	
Female (1=f)	-0.280	***					
<i>Marital status</i>							
Married	0.254	***	0.329	***	0.137		
Polygamous	0.215	***	0.267	***	-0.029		
Cohabiting	0.117	***	0.155	***	0.142	*	
Divorced	0.095		0.153	*	0.081		
Widowed	0.113		0.326	**	0.154		
<i>Education</i>							
Completed EP1	0.221	***	0.206	***	0.224	***	
Completed EP2	0.510	***	0.473	***	0.666	***	*
Completed ES1	0.842	***	0.786	***	1.074	***	**
Completed ES2	1.132	***	1.066	***	1.412	***	**
Completed ET1	1.001	***	0.929	***	1.235	***	
Completed ET2	1.484	***	1.406	***	1.605	***	
Teacher education	0.929	***	0.961	***	1.086	***	
Higher education	2.412	***	2.333	***	2.636	***	
<i>Industrial sector</i>							
Agriculture	-0.532	***	-0.488	***	-0.630	***	
Mining	0.768	***	0.783	***	0.342		
Construction	0.132	*	0.113		0.836	***	**
Transport	0.182	**	0.191	**	-0.030		
Trade	-0.095		-0.142		0.004		
Services	-0.031		-0.023		-0.038		
Education	0.096		0.098		-0.012		
Health	0.098		0.031		0.164		
Public administration	0.044		0.068		-0.155		
<i>Type contract</i>							
Casual	-0.298	***	-0.255	***	-0.760	***	**
Constant	10.366	***	10.298	***	10.126	***	
District effects	yes		yes		yes		
Observations	2810		2218		592		
Adj Rsq	0.559		0.532		0.665		

*** significant at 1%, ** significant at 5%, * significant at 10%
The dependent variable is the logarithm of the weekly wage in the main job (including fringe benefits).
Source: Fox *et al.* (2005).

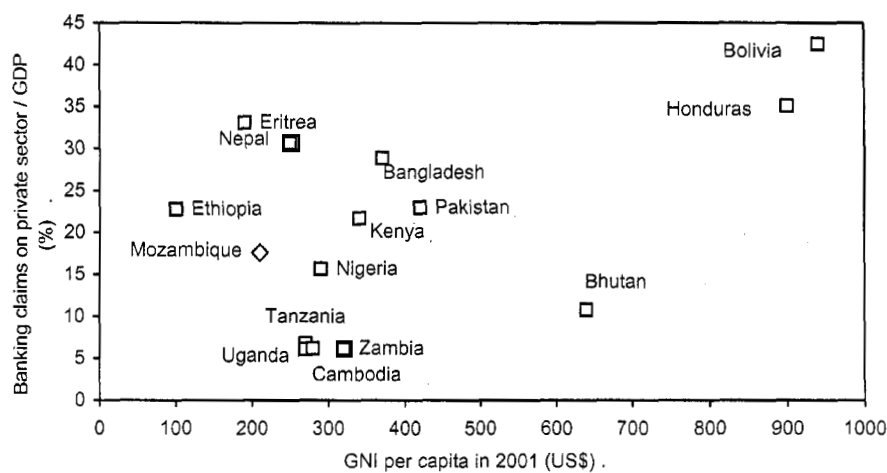
Annex Table 33. Commodity composition of imports, 1997-2002 (US\$ millions)

Product Group	1997	1998	1999	2000	2001	2002
Fish	3.9	9.6	7	8.7	7.8	16.3
Agriculture (excluding fish)	165.6	191	131.2	156.8	143.6	123.3
Rice	40	52	40.6	31.4	45.9	42.2
Wheat	30	30.5	22.2	16.9	25.3	26.4
Maize and maize flour	1.6	6.4	2.9	4.4	4.4	5.7
Vegetable oil	14.2	13.4	20.5	12.4	12.4	1.5
Sugar	30.4	25.1	13.8	12.2	12.2	4.1
Fruits and vegetables	4.9	5.8	2.9	6.3	6.3	1
Processed food products	8.7	12.7	6.5	17.4	17.9	7.6
Beverages	11.1	10.5	5.2	15.9	9.2	3.9
Minerals and fuel	99.5	85.3	80.3	190.2	183.6	160.5
Cement	6.5	11.8	5.2	6.8	12.4	10.1
Fuels	77.2	59	72.2	158.8	169.7	149.6
Electricity	15	8.4	14.1	14.6	28.5	30.7
Pharmaceuticals	12.9	7.4	8.5	14.5	19.3	24.8
Fertilizers	4.3	2.4	3.2	2.2	4	2.3
Other chemical products	38.5	41.6	28.3	59.9	78.3	87.2
Soap and detergents	4.4	6	3.5	6.9	6.4	6.7
Insecticides and fungicides	7.5	10.1	5.6	12.6	4.5	9.1
Plastics	13.7	13.2	8.2	17.6	50.3	53.1
Rubber products	12.7	8.4	6.1	16.4	9.5	10.1
Wood and paper products	16.2	25.7	10.5	30.1	40.1	26.5
Textiles and clothing	42.3	42.6	29.9	41.5	26.2	19.7
Textiles	19.2	18.9	11.4	17.3	12	18.8
Clothing	5.6	6.4	9.2	6.7	4.1	3.3
Used clothing	12.7	12.6	6.2	10.3	8.8	5.3
Iron and steel	27.2	94.3	26.2	68.9	39.7	50.6
Other metals	9.1	7.9	4.4	10.6	234.7	415.2
Machinery	74.4	85.9	60.5	188.9	131.7	136.1
Transportation equipment	113.4	73.8	174.7	174.8	80.5	135.5
Scientific equipment	12.4	18.6	7.9	23.6	10.7	13.8
Furniture	9.1	0.8	7.8	17.1	7.3	11.7
Other	29.7	0	15.6	26	28.1	26.5
TOTAL	755.9	817.3	656.5	1162.3	1063.4	1262.9

Sources: DTIS, 2005, Table I-6. In turn from INE, customs bulletins, IMOPETRO, EdM, Mozal and MOTRACO.



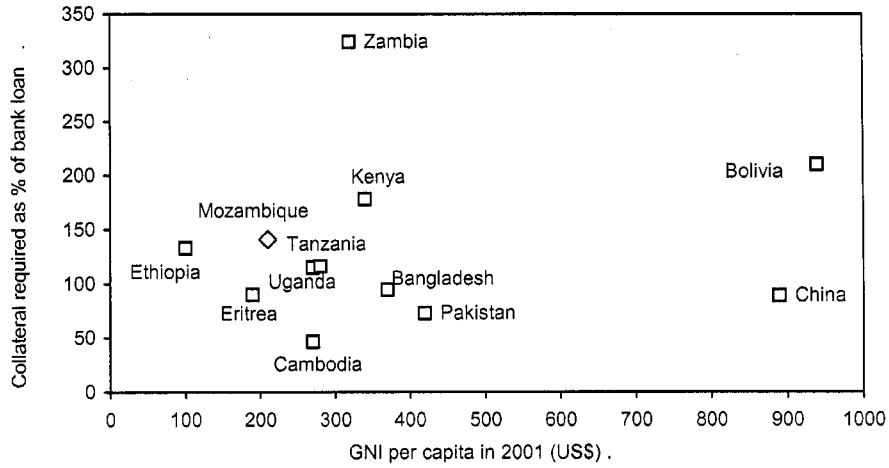
Annex Figure 34. Access to bank loans by manufacturing firms, ICA countries¹⁸³



Annex Figure 35. Claims on the private sector as a fraction of GDP, international comparison, 2001¹⁸⁴

¹⁸³ Sources: Investment Climate Assessments and associated Excel tables, at <http://rru.worldbank.org/InvestmentClimate/>. By “bank loans” here is mean term loans, excluding overdraft facilities.

¹⁸⁴ Source: IMF, *International Financial Statistics*, paper version for 2005 March. Claims on the private sector: variable 32d. GDP: variable 99b.



Annex Figure 36. Value of collateral required for loans, international comparison¹⁸⁵

¹⁸⁵ Sources: Collateral required is from: Investment Climate Assessments and associated Excel tables, at <http://rru.worldbank.org/InvestmentClimate/>. GDP per capita is from *World Development Report 2003*.

ANNEX 2 BACKGROUND PAPERS FOR THE CEM

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- Benito-Spinetto, Maria Teresa, and Peter G. Moll, 2005. *Macroeconomic developments, economic growth and consequences for poverty*. (Background paper for the Country Economic Memorandum). February 24, 2005.
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- Klasen, Stephan, and Silke Woltermann, 2004. *The impact of demographic dynamics on economic development, poverty and inequality in Mozambique*. Mimeo, World Bank, September 27. Background paper for the Mozambique Country Economic Memorandum. Supported by the Belgian Poverty Reduction Partnership (BPRP).
- Margulis, Sérgio, 2005. *An economic analysis of natural resource sustainability in Mozambique*. Background paper for the Mozambique Country Economic Memorandum. April 5, 2005. World Bank.
- Seroa da Motta, Ronaldo, 2004. *An economic evaluation of forestry regulation in Mozambique*. November. Background paper for the Mozambique Country Economic Memorandum.