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Public Expenditure Review
Phase 2: Sectoral Expenditures

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CURRENCY EQUIVALENTS
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FISCAL YEAR
January **1 to** December **31**

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CONTENTS

Figures

Tables

ABBREVIATIONS AND ACRONYMS

ADB	African Development Bank
ANE	Administração Nacional das Estradas (National Road Administration)
CFPP	Centro de Formação de Professores Primários: Teacher training system (grade 7 plus 3 years)
CGE	Conta Geral do Estado. See República de Moçambique, 2000-2001.
CPI	Current Price Index
CRA	Conselho de Regulação do Abastecimento de Água (Regulatory Board for Water Supply)
DfID	Department for International Development
DNA	Direcção Nacional das Águas (National Directorate for Water)
DNCP	Direcção Nacional de Contabilidade Pública
DNPO	Direcção Nacional do Plano e Orçamento (National Directorate for Planning and Budget)
DPT	Diphtheria, Pertussis and Tetanus
ECMEP	Empresa de Construção e de Manutenção de Estradas e Pontes, Enterprise for Construction and Maintenance of Roads and Bridges
EFA	Education for All
EP1	Primary school (lower level)
EP2	Primary school (upper level)
ESER	Education Sector Expenditure Review (2002). See References.
ESG1	General Secondary School (lower level)
ESG2	General Secondary School (upper level)
ESRP	Economic and Social Rehabilitation Program
ESSP	Education Sector Strategic Plan
ETSDS	Expenditure Tracking and Service Delivery Survey
EU	European Union
FIPAG	Fundo de Investimento e Patrimônio do Abastecimento de Água (Asset Holding and Investment Company for the five cities' water systems)
FRP	Feeder Roads Program
FTI	Fast-Track Initiative
FY	Financial Year
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
HNMS	Highway Network Management System
HSER	Health Sector Expenditure Review (2002). See References.
IGF	Inspectoria Geral das Finanças (Finance Inspectorate General)
IMF	International Monetary Fund
LCSP	Low-Cost Sanitation Program
MDGs	Millennium Development Goals

MPF	Ministry of Planning and Finance
MTFF	Medium Term Financial Framework
NGO	Non-Governmental Organization
NHS	National Health System of the Ministry of Health
NWDP	National Water Development Program (I and II) (projects funded by the World Bank)
O&M	Operation and management
PARPA	Action Plan for the Reduction of Absolute Poverty (viz. PRSP). See Republic of Mozambique, 2001.
PEMR	Public Expenditure Management Review, 2001, by the World Bank. The first phase of the Public Expenditure Review, of which this document is the second phase. See References.
PES	Plano Econômico e Social (Social and Economic Plan)
PESS	Plano Estratégico do Sector da Saúde (Health Sector Strategic Plan) 2001-2005-2010. See References.
PRSP	Poverty Reduction Strategy Paper
PSIA	Poverty and Social Impact Analysis
PTIP	Plano Trienal de Investimento Público (Triennial Public Investment Plan)
PTR	Pupil per Teacher Ratio
RBMMP	Roads and Bridges Management and Maintenance Program, sector-wide program, sometimes referred to as "Roads III"
ROADS III	See RBMMP
ROCS	Roads and Coastal Shipping projects 1 and 2, with World Bank and donor participation
RWS	Rural water supply
SDC	Swiss Agency for Development Corporation (Agência Suíça para o Desenvolvimento e a Cooperação)
SIP	Sistema de Informação de Pessoal (personnel register of the civil service)
SISTAFE	Sistema Integrado de Administração Financeira do Estado (integrated financial management information system)
SPS	Small Piped Systems
SSA	Sub-Saharan Africa
SWAp	Sector-Wide Approach
UIMO	(Brigadas de) Uso Intensivo de Mão de Obra (labor-intensive brigades, associated with road maintenance)
UTRAFE	Unidade Técnica para a Reforma da Lei da Administração Financeira do Estado (Technical Unit for Reform of the Financial Management Law)
UTRESP	Unidade Técnica para a Reforma do Sector Público (Technical Unit for Reform of the Public Sector)
UWS	Urban Water Supply
WB	World Bank

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For the World Bank, the second phase of the Public Expenditure Review was managed by Peter Moll (AFTP1). The primary authors of this report are Peter Moll and Antonio Nucifora (AFTP1); the team included Maria Teresa Benito-Spinetto (AFTP1), Abdelmoula Ghzala (AFTTR), Dipac Jaiantilal (AFTP1), Mary Mulusa (AFTH1), Catherine Revels (AFTU1), Alexandria Valerio (AFTH1) and Jane Walker (AFTU1). Contributions were made by the Bank consultants Chris Finney, Larry Herman, Eduardo Macuácua, Estrela Polónia and Manolo Sánchez. Part of the funding for the consultants came from the Belgian Poverty Reduction Partnership Program Trust Fund. Assistance with editing, communication and budget management was provided by Ligia Murphy (AFTP1) and Lurdes Malate (AFCO2).

On the Government side, the review was managed by Mr. José Sulemane, National Director of Planning and Budget in the Ministry of Planning and Finance. The team included Mr. Antonio Laíce, the National Director of Treasury, and Mr. Domingos Lambo, the Deputy National Director of Planning and Budget, as well as Mr. Sérgio Dista and Ms. Lídia Cabral. The team also included staff from the sectoral ministries (Education, Health, Agriculture, Water and Roads), and especial reference should be made to the contributions of Dr. Zefanias Muhate (Permanent Secretary, MINED), Mr. Virgílio Juvane (National Director of Planning, MINED), Mr. António Chambal (National Director of Finance and Administration, MINED), Dr. Frederico Sitoe (Deputy National Director for Agrarian Economics, Ministry of Agriculture), Dr. Humberto Cossa (National Director, Ministry of Health), Dr. Américo Muianga (National Director of Water, Ministry of Public Works), Mr. Carlos Fragoso (Chairperson of the *Administração Nacional das Estradas*), as well as that of their staff. Further acknowledgements are cited in the constituent papers on health, education, roads, water and expenditure tracking. Some of the work was done, under the direction of the Ministry, by a syndicate of consultant firms entitled *Fortalecimento da Planificação e Orçamento Sectoriais (FoPOS)*, which included Oxford Policy Management, CESO Consultoria Internacional and Austral Consultoria. The Expenditure Tracking and Service Delivery Survey (ETSDS) was done jointly by the Ministry of Health and the Ministry of Planning and Finance, with Oxford Policy Management and Austral Consultoria as implementing agencies, and with funding from DfID.

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EXECUTIVE SUMMARY

i. With careful economic management, substantial private capital inflows and support of the international community, Mozambique has staged a dramatic recovery from the damage resulting from its long struggle for independence and its civil war. Since 1992, infrastructure has been brought back to pre-war levels and incomes have risen considerably. But the country remains poor; infrastructure is inadequate, there are serious unmet education and health needs, and poverty issues need to be addressed directly.[1] However, many of the "first-generation" reforms associated with market liberalization have already been implemented. The country now faces the prospect of tightening macroeconomic constraints and an increasing need for better prioritization and management of public expenditures to eliminate absolute poverty.

ii. This, the second phase of the Public Expenditure Review (PER), covers aspects of sectoral spending in four major sectors: education, health, roads and water. These sectors were selected because they account for the bulk of government spending. Agriculture is omitted because the background work had not been completed by the time of going to press.

iii. The principles underlying this evaluation are the standard ones of economic analysis: efficiency, equity and implementability. Government intervention may raise *efficiency* by compensating for a market failure such as the inability to borrow (as in the standard rationale for subsidized education and health services), or the inability of entrepreneurs to charge for service (as in the standard rationale for government provision of roads). *Equity* is considered from the points of view of poverty reduction, regional inequality and gender inequality. *Implementability* is a factor because there may be historical, political and sociological reasons why certain reforms are not adopted over long periods of time. In addition, the policy maker must weigh up whether the market failure exceeds the possible "government failure" in implementation, stemming from a lack of human capital or other sources. Since implementability is a large subject in its own right, it is given only light treatment in this study, the details being left for further work. Nevertheless in this study a distinction is made between reforms which can be executed readily and those involving complexity, continued commitment and substantial technical resources (para. xlviii, p. xiv).

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[1] Even with the ambitious reforms proposed in this Review, only one of the Millennium Development Goals (MDGs) – that relating to clean water in rural areas – is likely to be met by 2015 (see the summary of the MDGs in Table 37, Annex I.)

The macroeconomic context

iv. ***Mozambique's recovery from the devastating floods of 2000 is almost complete*** as the economy grew by 7.7 percent in 2002 and is expected to grow by 7 percent in 2003, driven by investment in mega-projects and recovery of agriculture. Small and medium enterprises, however, have been negatively affected by very high interest rates stemming from monetary difficulties in recent years. Due to an expansionary monetary policy, the inflation rate rose to 22 percent at end-2001, compared to the PARPA target of annual inflation of 5 to 7 percent. Following a tightening of monetary policy, the inflation rate declined to 9 percent by the end of 2002 and is expected to decline further over the next few years.

v. ***Government revenues have grown significantly, from 11.3 percent of GDP in 1997 to 13.5 percent of GDP in 2002, exceeding the PARPA target of 12.4 percent.*** This, coupled with high levels of donor support, allowed expenditures to expand from 23.5 percent of GDP in 1997 to 32.2 percent in 2002. But even with high levels of external grant and foreign net borrowing, domestic borrowing has swung from significantly negative to a positive 1.6 percent of GDP in 2002.

vi. ***The growth and current level of expenditures is not sustainable and the Government now needs to improve the quality rather than expand the quantity of its expenditures.*** It will be increasingly difficult to raise revenues, domestic borrowing is already too large, and some experts speculate that external assistance (grants) might gradually fall from their present level of more than 10 percent of GDP toward the sub-Saharan African average of 4 percent.

Progress in fiscal management

vii. ***The Public Expenditure Management Review of 2001[2] noted serious deficiencies in fiscal management,*** particularly in public accounting, cash management, and auditing. Public accounts omitted *receitas próprias* (ministerial own receipts) and donor-funded expenditures. Cash management was inefficient and lacked transparency because large numbers of Government accounts were not being tracked. Internal auditing was ineffective due to a lack of capacity for accounting. Progress was made as some of the key recommendations of the PEMR (2001) to improve fiscal management were implemented:

- A new Financial Management Law was issued in 2001 and its regulations were issued in 2002. The new Law provides for modernization of the entire fiscal system and establishes the basis for an integrated financial management information system, SISTAFE (*Sistema Integrado de Administração Financeira do Estado*), which is being gradually introduced.

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[2] The PEMR (2001) was the first phase of the Public Expenditure Review. The present document is the second phase.

- A new budget classification system was introduced in 2001 that will permit more accurate tracking of poverty-related expenditures. However, its implementation at the detailed level has been delayed until the introduction of the SISTAFE in 2004/05.

viii. ***Some recommendations of the PEMR (2001) crucial to the reform process have not yet been implemented.*** Two of these are indispensable for the proper functioning of the management information system (SISTAFE):

- Ministerial own receipts or "*receitas próprias*", and donor-funded expenditures, are not being reported in full in the budget and budget execution reports.
- The hundreds of accounts of the Government with the central bank and commercial banks have not been inventoried or consolidated.

The intersectoral allocation of resources

ix. ***Budget allocations to poverty-oriented expenditures have risen.*** Current budget allocations to health and education rose from 4.1 percent of GDP in 1998 to 6.3 percent by 2002, on top of real GDP growth of 35 percent during the period. These increases make Mozambique's social sector allocations some of the highest in the region. These intersectoral choices may well be appropriate in the light of Mozambique's very high levels of poverty.

x. ***Further reallocations in favor of health may be called for, financed by cuts in non-priority areas.*** In each of the four sectors studied in detail – education, health, roads and water – there are needs for additional financing, without which the Government's medium term goals for the sector will not be attained. Given the poor state of monitoring (see below, para. xii), absorptive capacity is an issue in all the sectors, particularly in health, with its weak links between inputs and outputs, and water, where substantial under-execution is the norm (see below, para. xiv). While the study did not quantify the marginal welfare impacts of competing sectoral investments, it is hard to avoid the conclusion that some further reallocations in favor of health will be called for, merely in order to protect the gains made so far, since the health system's resources will be increasingly captured by HIV/AIDS patients with opportunistic diseases. Consideration may be given to making cuts in the sectors defined by the PARPA as "non-priority", and in particular in the rubrics of defense, embassies, the "non-priority" component of "security and public order", and recreation, culture and religion.

Common themes in sector spending

xi. Many of the key findings of this review are specific to the four sectors involved – education, health, roads and water – and may be consulted in the relevant sectors below. However, the review is unified by the following issues common to all the sectors:

- a problematic policy process, leading to poor monitoring and serious informational gaps;
- inadequate allocations and/or chronically low execution rates of poverty-oriented expenditures;

- an urgent need for civil service reform;
- the need for progress with decentralization; and
- the devastating impact of HIV/AIDS.

xii. ***Problems with the policy process lead to poor monitoring and serious informational gaps.*** Otherwise stated, there is a lack of government leadership and prioritization in expenditure management. In turn this is linked with a lack of focus on outcomes, as was stressed by the first annual progress report on the PARPA (Republic of Mozambique, 2003). The Government does not always have a detailed strategy for donor contributions to sector programs. Instead donors make proposals in a decentralized fashion and these tend to be accepted by the authorities. The result is a mosaic of programs based on different philosophies, of differing quality, and with widely differing cost structures (e.g. in school construction, water point development). Although there are strategy documents in place in the key sectors, these often consist of broadly expressed ideals, without detailed medium-term programs. Therefore the link between expenditures, targets and outcomes is not clear.

xiii. ***The chronic lack of information on inputs, outputs, outcomes and financials makes assessment of public expenditures difficult.*** The Government needs this information on a regular basis to facilitate allocation decisions. The annual progress report on the PARPA (Republic of Mozambique, 2003) identified this weakness in the policy process. The Government intends to respond by

- more carefully defining and monitoring PARPA objectives and targets, restricting attention to a smaller list of key items for tracking;
- using the *Plano Económico e Social* and the budget execution reports as its chief instruments, for rational planning and monitoring of the achievement of outcomes;
- mounting regular broad-based discussions of these key monitoring documents in meetings termed the *Poverty Observatory*.

This Review further recommends that

- the cycle of financial management incorporate regular elements of expenditure review, partly by creating in-house capacity and partly by hiring in skills as needed. Indeed the Ministry of Finance is seeking, through this Review, to initiate this;
- the action plan of the PEMR (2001) be completed, *inter alia* creating mechanisms for reporting information on donor contributions and properly implementing the detailed functional classification which was adopted in 2001;
- donors increase their contributions channeled through the budget. This would require further reforms of public finance, including thoroughgoing procurement reform, improved accounting and auditing, and steady implementation of the integrated financial management information system, the SISTAFE.

xiv. ***There has been chronically low budget execution in some priority sectors[3], particularly water and health.*** Current expenditures in certain sectors (e.g. water, health) averaged considerably less than the budget allocations between 1999 and 2001. Among the causes, according to the ministries concerned, is late arrival of the first of the *duodécimos* (or one-twelfths of the annual allocations). Another appears to be a lack of capacity to operate the *duodécimo* system for releasing revenues to ministries. This system provides for replenishment of funds against documentation of the use of the funds in the previous month. Since documentation of the past month's expenditures is often delayed or incomplete, allocations to ministries tend to lag, sometimes badly, leading to chronic under-spending. It is expected that the gradual implementation of the SISTAFE system will change this, but in the meantime specific training is needed in accounting and the requisite procedures.

xv. ***In a time of budget stringency it is possible to improve the quality of service delivery by rationalizing and reallocating spending.*** Some examples given in the main text are:

- *to save resources by* using local materials for construction in education; and fully funding periodic road maintenance to reduce rehabilitation costs;
- *to reallocate subsidized services to the poor,* including shifting the implicit subsidy on urban piped water to rural and small-town and urban standpipe services, and further shifting expenditures away from large hospitals to rural and small-town facilities; and
- *to prevent and treat HIV/AIDS and counteract its social and economic effects.*

xvi. ***The civil service is short of skilled, dedicated employees as it is difficult to attract high-quality, motivated civil service staff.*** Salaries are well below comparators (equivalently skilled private sector workers, or civil servants in neighboring countries), particularly at the upper skill levels. For technical specialists the differential is about 50 percent. Various "off-budget" revenues are sometimes used to supplement salaries. Such ministerial own receipts or *receitas próprias* are large: in 1998 off-budget receipts of the health ministry amounted to about 37 percent of its current budget allocation. Thoroughgoing reform of the civil service is needed, including improved compensation and linking of performance to promotion and pay. The Government is embarking on a pilot reform in 2003 for the ministries of education, health and agriculture entailing *inter alia* the introduction of remuneration related to performance. Donor assistance may be called upon to fund the decompression in the initial years.

xvii. ***The Government should continue to gradually decentralize administrative and fiscal responsibilities, and increase the amount of training*** in public administration at local level. A gradualist approach has been followed so far regarding the extension of responsibilities to provinces, districts and municipalities. This gradualist approach seems appropriate in light of the dearth of capacity in public administration outside Maputo.

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[3] The PARPA defined the "priority sectors" as education, health, infrastructure (including roads, energy, water), governance (including justice), agriculture, and macroeconomic management.

The Government should act to expand the capacity and the role of local administrations vis-à-vis the central government, by introducing adequate training programs and gradually transferring fiscal and administrative responsibilities. In this context, it will be important to reform the current system of *dupla tutela* of provincial directorates, since this system is not readily compatible with the process of decentralization.

xviii. ***The social and macroeconomic consequences of Mozambique's 13.8 percent HIV/AIDS prevalence rate are substantial.*** HIV/AIDS could reduce per capita GDP growth rates by as much as 1 percent annually in this decade (Arndt, 2003), negatively affecting revenue growth. HIV/AIDS also has implications for expenditures. In the education sector, HIV/AIDS results in absenteeism and deaths of teachers, and the need to subsidize due to orphaned children. The number of orphans in lower primary school can be expected to increase from the current 10 percent to 18 percent in 2015. The cost to the orphans' guardians of enrolling them was US$ 2.6 million in 2002, and could rise to US$4.6 million by 2006. In the health sector, the costs of treating patients, carrying out prevention programs and replacing and training staff will be considerable. To provide palliative care and treatment of opportunistic diseases to 20-30 percent of the population with HIV would absorb as much as half of total health expenditure; adding anti-retroviral therapy for 10 percent of HIV/AIDS victims would cost more than another half. The Government is carrying out a detailed study of the likely costs to the health system of the HIV/AIDS epidemic, but it is clear that the budgetary impact will be large.

Education

xix. ***Access to primary education has improved dramatically in recent years.*** The gross enrolment rate for the five years of lower primary (EP1) has risen from 56 percent in 1992 to 106 percent (95 percent for girls) in 2002. The increase in gross enrollment in the two years of upper primary (EP2), from 13 percent to 28 percent over the same period, was less impressive, though important given their initial low base. The improvement at the primary level is partly due to an increase in domestic expenditures (recurrent and investment), from 1.9 percent in 1997 to 3.1 percent of GDP in 2001, and an increase in the social demand for access to educational services. However this is still below the 5.1 percent average in sub-Saharan Africa. Access to secondary schooling is lagging, with a gross enrolment rate of only 8 percent.

xx. ***The education system, however, remains highly inefficient.*** Driven by high repetition and dropout rates, the completion rate of EP1 is 36 percent, compared with an average of 51 percent in Africa and 81 percent in all developing countries. It takes 18 years of instruction to produce a primary graduate (EP1 and EP2) instead of the nominal seven.

xxi. ***School fees are a likely contributor to low completion rates.*** At the primary level, 18 percent of the unit recurrent cost is paid by parents. This amounts to 12 percent of disposable household income of the lowest-earning decile. Much of the money is used for cleaning and security services, and for books. In the 1997 household survey, fees were cited frequently by parents in rural households as a primary reason for not sending children to school. Fees could be reduced at the primary level by a combination of increased allocations to schools and improvement of the exemption arrangements for

students from needy households. In secondary education, since the benefits from public spending are not equitably distributed, the current high level of cost recovery (about 30 percent) should be maintained, in parallel with making bursaries available to deserving students.

xxii. ***The decline in the quality of education needs to be reversed.*** The planned introduction of a new curriculum will help to address some issues related to quality and efficiency. The magnitude of the effect, however, will depend on parallel programs to upgrade teacher subject knowledge, improve teaching practice, and ensure an adequate supply of teaching guides and textbooks to support the new curriculum and upgrade school infrastructure. The trend towards hiring teachers without appropriate training qualifications should be reversed, and a priority placed on improving the supply and quality of teacher pre- and in-service teacher education programs. In this context, it is recommended that the Government improve the quality of teacher education programs offered at CFPP centers to ensure that all new primary teachers have CFPP qualifications. Teacher education programs (length and curriculum) should be restructured significantly to increase the supply of qualified teachers. The CFPP system should be reformed to adopt alternative training modalities aimed at reducing resident time and increasing practical training

xxiii. ***Reallocations within the education budget could improve efficiency while remaining within an envelope consistent with the PARPA.*** Savings can be made by (i) reducing the number of "ghost employees", as teachers on the EP1 payroll outnumber those recorded by the schools by 20 percent; (ii) improving the use of teachers' time in EP2; (iii) reducing construction costs; and (iv) reducing the subsidy on tertiary education. These savings would likely be sufficient to compensate for (i) increased training, (ii) more teachers, (iii) the proposed scholarships for AIDS orphans; and (iv) the proposed reduction in primary school fees.

xxiv. ***It is unlikely that the Millennium Development Goal of universal primary school completion will be attained*** unless drastic efficiency improvements are made. Projections indicate that important progress in raising completion rates in primary schooling could be made given the present budgetary allocations, but the goal of universal primary school completion will likely not be attained unless additional resources are allocated for recurrent and capital expenses. It may be necessary to consider modifications in the staffing profile and compensation structure of primary and secondary school teachers to ensure the expansion is not only sustainable, but also fiscally affordable given the resource envelope.

xxv. ***Merge the EP1 and EP2 cycles into a single primary education cycle.*** The current distinction between EP1 and EP2 embodies various inefficiencies and can be eliminated without compromising the quality of education. A merged primary school cycle would allow a substantial rationalization of available resources across EP1 and EP2 (notably teachers and classrooms), it would homogenize teachers' salaries and their qualifications across primary education (CFPP level), it would accelerate the school construction program, and it would ultimately facilitate the expansion to universal primary education.

xxvi. ***Improve cost efficiency in school construction*** and adopt a community based approach to primary school construction, particularly in rural and isolated areas. The Government should ensure that the construction cost per classroom does not normally exceed $10,000, including servicing and furnishing, and should revise the construction standards which have to be satisfied by contractors or communities. This would reduce the scope for rent seeking from school construction contracts and reduce the time it takes to complete works. In addition, the government should decentralize the school construction program, especially at the primary school level, to the provincial or district level, so as to ensure that schools are located where they are most needed.

Health

xxvii. ***The health status of Mozambicans continues to be poor, despite considerable improvement in some key outcome indicators.*** The causes of the poor health status include poverty, malnutrition, an environment which fosters harmful pathogens and parasites, lack of clean water, poor hygiene and inadequate health services. Malaria is the leading reported cause of death and HIV/AIDS is becoming a critical problem. There has been little improvement in key health outcomes since the 1992 PER. In 1989, the infant mortality rate was 137-150 per 1000 live births (depending on the source) and the under-5 rate was 203; in 2001 these were 129 and 200 respectively. The intra-hospital maternal mortality rate fell from 230 per 100,000 live births in 1993 to 160 in 2002. Life expectancy at birth was 43-49 years in 1989 but only 42 years in 2001. Part of the decline was due to HIV/AIDS.

xxviii. ***The Government's objectives for primary health care include better quality and improved equity of care.*** There has been remarkable progress in the coverage of primary health care since the 1992 PER. The percent of children fully immunized by two years of age was 55 percent in 1995, reaching 82 percent in 2001. Deliveries attended by a trained provider rose from 28 percent in 1995 to 45 percent in 2002. The common pool for pharmaceutical purchases garners economies of scale in procurement and ensures efficient delivery of drugs, at least as far as the provincial level. The overall output of the government health system – as measured by a composite indicator of key outputs[4] – rose creditably by 59 percent between 1993 and 2000. However, there continue to be serious problems. According to the Expenditure Tracking and Service Delivery Survey (ETSDS), 58 percent of the clinics surveyed in 2002 lacked one or more essential drugs in stock at the time of inquiry. Consultation time was inadequate, averaging only 4 minutes, when consultations of 10-15 minutes are needed. Various measures of equity (e.g. the distribution of health service by province) show little improvement since the early 1990s.

xxix. ***Health spending increased from US$4.6 per capita in 1997 to US $7.5 in 2000 and US $10.7 in 2002, but the resultant outputs were less than expected.*** The health sector accounts for the largest share of donor financing (exceeding that of education), having received 11 percent of total grant funding between 1999 and 2002. However, the

[4] For the definition of the composite indicator, see footnote 62 on page 66.

increased spending did not result in a substantial increase in output: the 66 percent increase in spending between 1997 and 2000 resulted in output (as measured by the composite indicator) rising by only 13 percent, of which 7 percent was due to increased service delivered per staff member.[5] It is not clear that the additional funds were efficiently used, as indicated by a 53 percent increase in the unit cost of service.

xxx. ***The quality and quantity of health services can be raised by resource reallocation; even so, hard choices about care for HIV/AIDS patients lie ahead.*** Savings can be made for the Government at the tertiary hospital level by (i) raising efficiency (note, for example, that the bed occupancy rate in 2000 was only 59 percent) and by (ii) charging higher rates for more complex services on the basis of ability to pay. The amounts forthcoming will only be known once the "off-budgets" in the health system have been clarified and regularized. In addition, on the assumption that health's share of tax revenues remains constant[6], there will, given the growth of GDP and taxes, arise sizeable amounts of domestic resources which could be used for expansion of service and quality improvements. These additional amounts are roughly $7 million in 2006, rising to $16 million in 2010. Yet these amounts are insufficient to provide both for (i) extension of the reach of the health system beyond the current half to two-thirds of Mozambicans, and for (ii) even modest levels of assistance for HIV/AIDS patients. Estimates indicate that it would cost $12 million to provide palliative care for 30 percent of HIV/AIDS patients and $43 million to provide clinical treatment of opportunistic infections, even without antiretrovirals. Hence difficult choices lie ahead. At the margin donor funds could be found to assist but in the long run this would likely constitute a redistribution from other programs because aggregate grants are unlikely to exceed their current dollar level of between $350-$450 million annually. It is hard to avoid the conclusion that further savings will need to be found in order to provide at least a modest response to the ravages of HIV/AIDS, provided that the efficiency of the use of funds in the health sector can be raised. Suggestions as to where the needed savings could be found have been made above (para. x, p. iii).

xxxi. ***The lack of detailed prioritization linking objectives to spending, and based on analysis of past spending, is a limitation on provision of health services and attainment of the Government's goals.*** The various policy and strategy documents, including the PESS, need to be consolidated into a consistent planning instrument with clear prioritization linked to resources. Such detailed prioritization is not feasible when program spending data are absent (e.g. spending, outputs and outcomes of the malaria vertical program are unavailable) and cannot be based upon analysis of the effectiveness of past spending when the detailed functional classification adopted in 2001 is not applied system-wide. Given the lack of prioritization, and with the tenuous link between

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[5] Comparing the output increase of 59 percent between 1993 and 2000 (see the previous paragraph), and the smaller increase of 13 percent between 1997 and 2000, it appears that the bulk of the output improvement occurred in the early nineties as the country was recovering from the impact of the war.

[6] Assumptions: (i) tax revenues allocated to health will rise *pari passu* with GDP growth, (ii) maintaining current levels of service will require increases in real spending *pari passu* with population growth, and (iii) the salary bill accruing to health increases *pari passu* with GDP growth. Then the remaining funds are, in theory, available for deployment in new projects such as HIV/AIDS care and prevention.

the health service effort and some of the key outcome indicators, it is unlikely that the Millennium Development Goals for maternal mortality and under-5 mortality can be attained under present circumstances.

xxxii. ***The user fee system is inequitable and lacking in transparency, and needs a complete overhaul.*** Drug wastage is common, overcharging is widespread, health facilities charge widely differing rates, and the official exemptions for the needy are not consistently granted. The Expenditure Tracking and Service Delivery Survey (ETSDS, 2002) found that, although consultations are supposed to be gratis, 35 percent of children were required to pay. This situation discourages the poorest from seeking care. A thoroughgoing review of the entire policy and its implementation is needed. The Government could also consider abolishing fees at Level I facilities altogether, because the contribution they make to the district budgets is quite small, and little is retained by the facilities themselves. Finally, ***all user fees should be reflected in the budget.***

Roads

xxxiii. ***Progress has been made in the road program since the 1992 PER, but road coverage is still thin.*** Intensive rehabilitation has resulted in an increase in roads in good or fair condition from 10 percent to 55 percent of the network. Most of the rehabilitation was of tertiary and unclassified roads. Routine maintenance was increased from 4,000 km/year in 1994 to 15,000 km/year at present. However, Mozambique's 32 km of roads per 1000 square km is the lowest in the Southern Africa region where the median is 90 km. In terms of maintenance, too, Mozambique lags: 55 percent of its roads are in good or fair condition, against the regional average of 71 percent.

xxxiv. ***The budget for road construction and maintenance constitutes 10 percent of the total national budget and 20 percent of the total investment budget.*** Roads spending comprises 36 percent of the internally funded investment budget for the PARPA priority sectors, and has double the share of the next highest sector (education). Donors contributed via successive multi-donor programs, the ROCS 1 and 2, the Feeder Roads Program, and most recently Roads III (Roads and Bridges Maintenance Program, RBMMP).

xxxv. ***Road maintenance expenditures have not increased in real terms since 1996 despite growing maintenance needs and a growing economy.*** Funding of maintenance was inadequate because the real value of the petroleum tax, which is the major source of income for the Road Fund, fell by 40 percent between 1994 and 2000. Moreover, the authorities failed to transfer the portion of the tax that had been allocated by decree. In 2000, the total fuel tax was US $36 million, but only US $22 million was transferred to the Road Fund. This was below requirements. The Roads III program will succeed only if the maintenance program (routine and periodic) is funded, as the Government intends, by restoring the fuel tax to its real 1997 level or committing to alternative funding sources providing the same funds.

xxxvi. ***Failure to carry out periodic maintenance is undermining the roads program.*** Only 18 percent of planned periodic maintenance, scheduled activities on larger assets, was executed during the 1990s. There are two reasons for this: only 57 percent of the funding committed up to 1998 was actually provided; and periodic maintenance is more

difficult as it requires complex design and a longer procurement process. The Government needs to adhere to its financial undertakings to fund maintenance, even if this requires temporarily cutting back on the rehabilitation program and new construction.

xxxvii. ***Progress has been made in institutional development with the creation of a semi-autonomous roads authority (ANE).*** Roads administration needs to be autonomous, in order to promote rational decision-making on the basis of technical merit. The Road Fund should be separated from ANE, as planned, and the boards of the ANE and the Road Fund should be structured to permit accountability.

xxxviii. ***The parastatal maintenance companies should be subjected to full competition, and be privatized.*** The parastatal maintenance companies still do much of their work on force account, protected from competition. Further private sector development in the form of open bidding and privatization should help to reduce maintenance costs.

xxxix. ***The Feeder Roads Program and the provincial distribution of rehabilitation and maintenance have given the roads program a stronger poverty reduction orientation.*** However, not enough has been done to provide poorer districts with access to good-to-fair roads. The poverty reduction orientation should be strengthened by utilizing district-based poverty measures in *ex ante* social impact analyses when allocating investment and periodic maintenance budgets.

xl. ***Roads expenditure data need a thorough overhaul.*** There is a need for reliable, up-to-date data on actual externally funded expenditures on roads, and reliable data are needed on unit costs of rehabilitation and maintenance so as to permit policy-relevant comparisons.

Water supply and sanitation

xli. ***Water supply and sanitation are critical for poverty reduction, but Mozambique has low coverage levels*** – 60 percent for water supply and 43 percent for sanitation, including rural and urban areas – among the lowest in Sub-Saharan Africa. Spending in the sector has increased in recent years, due to donor assistance following the floods of 2000. Total public expenditure on water was $15 million in 1999, $28 million in 2000 and $24 million in 2001. Annual expenditure from locally generated sources (viz. Government) has consistently been around $4.5 million, with the balance coming from donors. Water accounts for some 2.4 percent of the government-funded component of the investment budget, well behind roads (20 percent), education (13 percent) and health (11 percent). The sub-sectoral split is 56 percent on rural water supply (including small piped systems in towns), 34 percent on urban water supply and sanitation and 11 percent on water resources.

xlii. ***Significant progress has been made in improving water supply in rural areas***: coverage has increased from around 10 percent in 1992 to around 35 percent in 2002. However, sustainability is low, with over one third of the installations reportedly not functioning.

xliii. ***Urban water supply coverage has decreased***, as investment failed to keep up with increased demand resulting from population growth and urbanization. The number of

households with direct access to piped systems has fallen by 4 percent over the past ten years and quality of service has deteriorated, with frequent interruptions and only 19 percent of standpipes (the source of water for most city dwellers) fully functional. Over the past year, however, service has started to improve in the five largest cities operated by a private operator. Progress has also been slow in meeting the demand for improved sanitation facilities in both rural and urban areas and more needs to be done to promote hygienic practices.

xliv. ***The policy foundation for the sector is sound.*** The Government has made great strides in establishing the policy foundation and institutional arrangements necessary for improved efficiency, creating an enabling environment for leveraging public expenditures through greater participation by communities, users and the private sector in ways that will improve sustainability. Further work is needed to bring down the costs of investment required to improve coverage.

xlv. ***To meet the PARPA goals, and the Millennium Development goals, increased public spending and increased efficiency are needed.*** For rural water supply, it is highly likely that the PARPA target of increasing coverage from the current level of 35 percent to 41 percent by 2005 can be met if the demand responsive approach is followed to ensure sustainability. However, it is uncertain whether the PARPA targets of increasing direct access to urban water supply from the 2001 level of 44 to 50 percent and increasing sanitation coverage from 43 to 50 percent can be met by 2005.[7] The MDGs seek to reduce by half the number of people without access to improved water supply and sanitation by 2015. For this, the following reforms are needed:

Rural water supply:

- an estimated 1400 rural water points would have to be installed each year, up from 900-1300 in recent years, backed up by the demand responsive approach for sustainability;
- an effective strategy should be developed for small piped systems;
- investment costs must be brought down through increased competition;
- training in planning and monitoring should be given to provincial and district directorates responsible for water supply

Urban water supply

- over 21,000 connections would need to be installed each year. However, the figure of 10,000 connections may be more realistic given that the current level is some 2,500 per year. In addition, investment and operating costs would need to be reduced, and service levels improved through increased competition;
- tariffs should be phased up to full cost recovery levels by 2008; and

[7] With substantially increased investment it may be possible to reach this objective by 2007.

- service to the poor should be improved by privatizing standpost operation, allowing resale of water by individuals and targeting subsidies to increase direct access by the poor.

Sanitation

- for urban communities, institutional arrangements need to be aligned so that planning for water supply and sanitation is coordinated and service is provided in the most efficient manner;
- for rural and peri-urban communities the Government's Low-Cost Sanitation Program should be scaled up with its focus on improved latrines; the Government should support increased participation by the private sector in installation of facilities and by NGOs in hygiene promotion.

xlvi. *Water resource management issues need urgent attention and adequate budgetary allocations.* Water resource management was not a major focus of this Public Expenditure Review, as to do this would have required a large separate study. Nevertheless, due to its overriding importance in Mozambique it should be stressed here that substantial efforts will be required for strengthening of water management capability. The Government is presently formulating an Integrated Water Resource Management Strategy. Since Mozambique needs to be well equipped to negotiate agreements concerning its river basins with adjoining countries, provision for negotiation costs should be included in future DNA budgets. Finally, in view of the severe flooding experienced in 2000 and 2001, there is an urgent need for the government to develop a practical flood forecasting, warning and management policy, strategy and program.

The Expenditure Tracking and Service Delivery Survey (ETSDS)

xlvii. The ETSDS of 2002 was a pilot survey of the primary health system to track the transfer of funds from the central government, to provinces, districts and health posts. The hypothesis was that delays in budget execution, as well as weak systems of control, with consequent scope for leakages and discretion in the allocation of resources, may adversely affect the quality and efficiency of service delivery. In fact the ETSDS found that record-keeping was so poor that it was impossible to determine whether there was leakage of funds between the different levels. It did, however, turn up evidence of leakage of drugs between the provincial and the district level. As mentioned above, the survey confirmed that the user charge system is inequitable, lacks transparency and creates scope for staff to pocket the moneys collected. Finally, the survey found that only 80 percent of staff were actually in post at any one time. The survey, in sum, revealed important information about the system's functioning and pointed the way to improvements. Several of its recommendations have been cited above. Overall the ETSDS was a successful venture and should be repeated in the health ministry and other ministries as a means of improving service quality.

Key recommendations

xlviii. Here follows a very brief bullet-form summary of selected key recommendations that emerge from the Public Expenditure review. (A detailed action plan, listing recommendations by sector, may be found in Table 36 in Annex I, p. 108.) A distinction is made between reforms whose implementation is relatively straightforward given the political will, and reforms involving complexity in implementation, requiring persistent commitment and technical assistance as well as political will.

Straightforward reforms

- This **Public Expenditure Review should be disseminated** with a view to strengthening the capacity of Government staff to execute future PERs themselves.
- **Government accounts** at the central bank and commercial banks should be inventoried and consolidated. This will enable cash planning and save resources.
- **The budget and the budget execution reports** should reflect, in full, the *receitas próprias* in many ministries and all donor funding.
- **Completion rates** at the primary school level should be raised using a combination of programs, including curriculum reform, in-service teacher education programs, reduction of school fees (formal or informal) at the primary level and decentralization of several planning and resource allocation responsibilities to the districts.
- The correspondence of the payroll and the establishment (government employment roll) should be investigated to identify possible "**ghost employees**" in education and elsewhere.
- In roads, full funding should be provided for **periodic road maintenance**, and periodic maintenance should be given a suitable institutional home.
- The **urban water supply and sanitation programs** should be accelerated, and water tariffs should be raised gradually until full-cost pricing is reached in 2008.

Reforms involving complexity

- The **spending cycle should be linked to objectives, and monitored using reliable data**. Using the PARPA as the vehicle, all the key ministries should establish explicit links between expenditure and objectives, and between these and outcomes. The monitoring process should inform subsequent rounds of spending in the context of the medium term financial framework of the PARPA. In this context, public expenditure reviews will become part of the normal work of the ministries. This would create a demand for reliable data on expenditures and program outputs.
- **Civil service reform** is urgently needed to raise productivity by strengthening the link between performance and compensation, and to reduce the dependence of the ministries on side payments. In the case of education, salary moderation is called for, at least at the secondary level, in order to permit the system to expand.

- **Health policy documents** should be consolidated in a single planning system with prioritization linked to resource allocation, and output monitoring should be strengthened. This would require completing the planned program classifier of expenditures, and implementing the detailed functional classifier adopted by the Ministry of Finance in 2001.

CHAPTER 1. INTRODUCTION

1. This is the second (and final) phase of the Public Expenditure Review (PER) for Mozambique. The first phase, initiated in 2000 and completed in 2001, and termed the *Public Expenditure Management Review* (PEMR), dealt with the financial management system. It developed a large agenda of reform in all of the parts of the expenditure cycle: budgeting, execution, accounting, and auditing. Jointly with the Mozambican authorities, a final report was produced which included a time-bound action plan.

2. This, the second phase of the PER, covers aspects of sectoral spending in four major sectors: education, health, roads and water. These sectors were selected because they account for 51 percent of government spending and for 56 percent of the civil service, and are among the six "fundamental areas of action" in the *Action Plan for the Reduction of Absolute Poverty* (termed PARPA, viz. Mozambique's Poverty Reduction Strategy Paper). This second phase of the PER also provides an update to the reader about progress with the action plan of the first phase, the PEMR. Finally, it reports briefly on a pilot expenditure tracking exercise carried out in the specific case of health, the *Expenditure Tracking and Service Delivery Survey*[8]. The PER is a joint product of the Government and the Bank, each taking the lead in different sectors.

3. The main objectives of the PER 2nd phase are to examine allocative efficiency and cost-effectiveness, as well as the poverty orientation of spending. Among the yardsticks used for examining the rate of service delivery are the targets set in the Government's PARPA and also the Millennium Development Goals (MDGs). Although the PARPA (Republic of Mozambique, 2001) and the first annual progress report on the PARPA (Republic of Mozambique, 2003) did not take on the MDGs as the Mozambican Government's own goals, the MDGs can serve as a useful benchmark to permit comparison with other countries.

4. The scope of the inquiry is limited. Agriculture is omitted because, although some preparation was done[9], the full background paper by the Ministries of Finance and of Agriculture was still under preparation at the time of going to press. Concerning HIV/AIDS, research was done on the disease in general, on its macroeconomic impact, and on its impact in the educational sector, and some information was generated on its impact in the health sector. But a major study on HIV/AIDS and its impact on the health sector, and measures to be taken, is due to start during 2003, led by DNPO. It was not possible to reflect the results of this study in the PER.

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[8] One of the objectives of the first phase of the PER was to do an expenditure tracking survey. This work, which was arranged by DNPO with DfID funding and execution by consultants, was substantially slowed down and is therefore reported on in the 2nd phase of the PER.

[9] See Finney (2003), and DNPO and DNEA (2003).

CHAPTER 2. MACROECONOMIC AND CROSS-CUTTING ISSUES

A. THE CURRENT MACROECONOMIC CONTEXT

5. This section shows that Mozambique underwent a cycle of swift monetary growth and inflation followed by traditional adjustment process of demand restriction, the effects of which are likely to beleaguer the economy for some time. On the fiscal side, the late 1990s saw a massive expansion in spending, but the perspective is that spending be contained to 26 percent of GDP by 2005. The major policy consequence of this discussion is that there will be a need for concentration on improving the *quality* of expenditures.

6. *Mozambique's growth averaged a spectacular 9.4 percent from 1997 to 2002* (Table 1), driven by megaproject construction, investment from neighboring countries, buoyant donor support, and healthy agricultural growth. The 2000 floods reduced growth to 1.6 percent but the economy recovered quickly, growing at 13.8 percent the following year. There is probably some overstatement in these numbers owing to the lack of survey data in the agricultural value added estimates. Furthermore, 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.

7. *The country is experiencing the fall-out from the easy money of the late 1990s.* Reorganization of the banking system in the mid-1990s, together with tight money, resulted in single-digit inflation up to 1999. Lax monetary policy (M2 growth of 35 percent in 1999) induced a rush of inflation of 13 percent in 2000 and as the exchange rate weakened *pari passu*, inflation worsened to 17 percent in 2002. In response, monetary policy was steadily tightened by increasing reserve requirements and by raising the bank rate. Inflation finally fell to 9 percent by the end of 2002, at the cost of extremely high interest rates, e.g. prime of over 35 percent at end-2002. The small and medium-sized firm sector is in recession, while growth is driven by large firms not dependent on Mozambican financial markets. There is an implication for government borrowing: further pressure arising from domestic financing at this time would arrest the recovery of the small and medium-sized firm sector.

Table 1. Basic macroeconomic indicators

	1997	1998	1999	2000	2001	2002	2003
	Percentage, unless otherwise stated						
Real GDP growth rate [a]	11.1	12.6	7.5	1.6	13.8	9.9	7.0
Nominal GDP (Mt trillions)	40.5	46.9	51.9	56.9	73.9	92.8	107
Nominal GDP (US$ billions)	3.51	3.96	4.09	3.63	3.57	3.92	4.19
Inflation (period average)	6.4	0.6	2.9	12.7	9.0	16.8	8.5
Gross domestic savings/GDP	8.1	10.8	13.7	14.0	21.0	21.6	20.7
Investment/GDP	20.6	24.2	36.7	36.4	37.0	45.7	49.5
Interest rate (commercial lending rate)	..	24.4	19.6	19.0	22.7	25.5	..
Current account deficit/GDP (excl.grants)	-17.7	-18.9	-28.2	-28.7	-23.1	-29.2	-34.8
Exchange rate (000 Mt / US$)	11.5	11.9	12.7	15.7	20.7	23.7	25.5
NPV external debt/exports (percent)	709.2	549.1 [b]	212.0 [b]	194.4	116.7	99.8	96.3

Sources: Mozambican authorities; World Bank staff estimates and projections.
[a] GDP in 2002 was Mt 93 trillion or about $3.9 billion at the exchange rate of Mt 23,695 = $1.
[b] The sharp decreases in external debt in 1999-2001 were due to the Highly Indebted Poor Countries (HIPC) and Enhanced HIPC operations in those years. The massive reduction is mainly a book entry because Mozambique was not servicing most of its debt in the mid-1990s. The actual impact was a reduction in external debt service from about $100 million annually in the 1990s to $50 million after the Enhanced HIPC.

8. *The exchange rate is fully flexible.* Nevertheless the real exchange rate overshot during 2001 owing to a loss of confidence in the currency, arising partly from problems in the financial sector. As these problems were partially resolved, the Metical strengthened in real terms during 2002.

9. *Mozambique has made important progress in trade policy.* The top tariff rate was lowered to 25 percent during 2003. Rates on capital goods and intermediates are between five and 10 percent. Further reductions in tariffs will follow as the SADC trade protocol is implemented. Management of customs has been contracted out, leading to increases in efficiency of collection which have more than compensated for the decline in the tariff rates during the 1990s.

10. *A new arsenal of tax legislation is now ready.*[10] With a view to long-term fiscal sustainability, a value added tax was introduced in 1999. The value added tax is now the largest single taxation item (though the bulk of it falls on imports). 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.

11. *Deficits after grants were relatively low until 2000*, thanks to a prudent fiscal stance accompanied by substantial external assistance (see Table 2). Combined with a prudent monetary policy, especially in the period 1996 to 1998, and a program of structural reforms based mainly on privatization, tax and customs reform and trade liberalization, this resulted in low inflation, high private investment and high growth rates. At the same time, since 1998 there has been a shift in resources in favor of health, education and agriculture, reflecting an increasing anti-poverty focus. Education, health

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

and agriculture increased their combined share in total budgetary allocations from 29 percent in 1998 to 39 percent in 2001.

Table 2. Government finance, 1997-2003 (percentage of GDP)

	1997	1998	1999	2000	2001	2002	2003
			Actual			*Est.*	*Proj.*
Total revenue	11.3	11.4	12.0	13.1	13.0	13.5	14.4
Total expenditure and net lending	23.5	21.6	24.7	29.4	31.4	32.2	28.6
Current expenditure	10.6	11.2	12.2	13.8	14.2	14.4	15.5
Compensation to employees [a]	3.6	4.5	5.8	6.8	6.6	6.5	7.1
Goods and services	3.8	3.9	3.7	3.9	3.9	3.8	4.2
Interest on public debt	1.3	1.0	0.6	0.2	0.6	1.2	1.1
Domestic	0.1	0.0	0.0	0.0	0.4	0.9	0.9
External	1.2	0.9	0.6	0.2	0.2	0.3	0.2
Transfer payments	1.9	1.9	2.1	2.9	3.0	3.0	3.1
Capital expenditure	11.9	9.8	11.6	13.7	14.1	13.7	13.0
Of which: locally financed	1.8	2.1	3.4	4.4	4.6	3.5	3.5
Net lending	1.0	0.6	0.9	1.9	3.1	4.0	0.0
Of which: locally financed	0.9	-0.6	0.0	1.6	3.1	2.4	-0.2
Overall balance before grants	-11.7	-10.5	-13.2	-16.7	-18.0	-18.7	-14.2
Grants received	9.1	8.1	11.7	12.0	13.0	10.9	10.4
Project	4.8	4.0	5.4	6.7	8.1	7.5	6.7
Nonproject	4.3	4.1	6.3	5.3	4.9	3.4	3.7
Overall balance after grants	-2.6	-2.4	-1.5	-4.6	-4.9	-7.8	-3.8
Net external borrowing	5.7	4.6	1.8	2.9	2.4	5.7	4.2
Net domestic financing	-3.1	-2.3	-0.3	0.8	1.9	1.6	-0.7
Transfer of HIPC assistance [b]	..	..	..	0.9	0.7	0.5	0.3
Memorandum item:							
Expenditure & net lending (US$ mil.)	825	856	1010	1067	1121	1261	1198

Sources: Mozambican authorities; World Bank staff estimates and projections.
[a] The figures for 1999 exclude, and those for 2000 include, wage outlays that were payable in 1999 but delayed until 2000 pending re-certification of civil servants.
[b] Bank of Mozambique transfer of assistance under the original HIPC by multilateral donors.

12. *However, fiscal policy continues to suffer from high deficits before grants*, which rose from 11 percent of GDP in 1998 to 17 percent in 2000 and 19 percent in 2002 (Table 2). Underpinning these results was a substantial increase in expenditures – which grew at 17 percent annually in real terms from 1997 to 2002 – and which was not matched by higher revenue. The sharp increase in 1999-2002 was due in large part to bailouts of two banks which could have been avoided if the privatization process had been better prepared and executed, and if the state had fully divested from the banks and pursued appropriate banking supervision. It was also due to an increase in the civil service wage bill of 46 percent in real terms between 1999 and 2002[11], and to higher social spending made possible by HIPC debt relief.

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

13. *The fiscal position of 2000-2002 cannot be maintained* and, if not corrected, will threaten macroeconomic stability and growth. Until now, 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 very long run grants are likely to converge towards the average in Sub-Saharan Africa, which is around 4 percent of GDP (against 11 percent of GDP in 2002 in the case of Mozambique).[12] Therefore, fiscal adjustment has become a priority of Government policy. This effort will combine a relatively demanding revenue effort with measures to restrain expenditures.

14. *The macro framework envisages important changes on the revenue and spending sides.* Table 3 presents the most probable scenario, on the basis of reasonable assumptions of economic growth, revenue capability (see paragraph 10 on page 19), and donor contributions (with grants averaging some US$350 million annually). The fluctuations in growth between 7 and 12 percent reflect the megaprojects (with their contributions rising during construction), as well as other direct foreign investment, continued donor support, and agricultural expansion. Revenue increased to 13.5 percent of GDP in 2002 and is programmed to reach 15.2 percent of GDP in 2005. For 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 29 percent in 2003, 26 percent in 2005 and 24 percent in 2010. This represents a considerable reduction in percentage terms – two percentage points per year – but in real terms expenditures are still growing at 4 percent per year between 2002 and 2010. Hence it is not politically unrealistic. This should be accompanied by a re-focusing of public expenditures in priority areas while improving the efficiency and poverty incidence of public spending.

[12] Note that this PER has projections only as far as 2005, and does not attempt to make projections for the outer years on the basis of this assumption.

Table 3. Macro framework, 1997-2005

	1997	1998	1999	2000	2001	2002	2003	2004	2005
	-	- Actual -			-	Est.	Projected		
Output and prices									
Real GDP growth rate [a]	11.1	12.6	7.5	1.6	13.8	9.9	7.0	11.9	9.8
Inflation (period average)	6.4	0.6	2.9	12.7	9.0	16.8	8.5	6.0	5.0
Exchange rate (000 Mt/US$)	11.5	11.9	12.7	15.7	20.7	23.7	25.5	27.0	28.0
Money		(as a percentage of GDP)							
Money and quasi-money	18.6	18.6	22.7	29.5	29.5	28.3	29.1	34.5	39.8
Net foreign assets	-2.2	-0.5	1.4	7.6	10.6	10.0	10.3	10.3	10.3
Net domestic assets	2.5	2.4	6.0	10.9	13.1	13.0	13.7	18.7	24.9
Credit to the government	-11.1	-12.0	-10.8	-9.0	-5.7	-3.6	-3.8	-1.6	1.5
Credit to the rest of the economy	13.6	14.3	16.8	19.9	18.9	16.5	17.5	20.3	23.4
Public Finance									
Total revenue	11.3	11.4	12.0	13.1	13.0	13.5	14.4	14.9	15.2
Total expenditure and net lending	23.5	21.6	24.7	29.4	31.4	32.2	28.6	26.6	25.9
Foreign financed dev. expenditures	10.0	7.6	8.2	9.3	9.5	10.2	9.5	8.9	8.5
Interest	1.3	1.0	0.6	0.2	0.6	1.2	1.1	0.8	0.7
Domestic non-interest expenditures	12.0	11.7	15.0	19.6	21.3	19.1	17.7	16.7	16.5
Overall balance before grants	-11.7	-10.5	-13.2	-16.7	-18.0	-18.7	-14.2	-11.7	-10.7
Overall balance after grants	-2.6	-2.4	-1.5	-4.6	-4.9	-7.8	-3.8	-3.6	-3.4
Financing									
Foreign financing	5.7	4.6	1.8	2.9	2.4	5.7	4.2	3.0	2.7
Domestic financing	-3.1	-2.2	-0.3	0.8	1.9	1.6	-0.7	0.3	0.4
Transfer of HIPC assistance [b]	..	..	..	0.9	0.7	0.5	0.3	0.3	0.3

Sources: Mozambican authorities; World Bank staff estimates and projections.
[a] GDP in 2002 was Mt 93 trillion or about $3.9 billion at the exchange rate of Mt 23,695 = $1.
[b] Bank of Mozambique transfer of assistance under the original HIPC by multilateral donors.

Fiscal sustainability

15. A key contribution of this Review is to determine whether the spending projections made by the respective sectors are feasible. The focus is on recurrent expenditures because ultimately these are limited by government revenue. Starting with the macro framework exposited in Table 3, the ceiling on spending in the six PARPA priority areas[13] is derived, taking into account the intended increase of the priority sectors from 68-9 percent to 75 percent of the total. Next the spending in the biggest sectors – education, health and roads – for the most recent historical year (2001) is projected forward in such a way as to keep their share in total priority expenditures constant (Table 4). The conclusions are that

- the projections for roads in the background paper (Herman, 2002), which are consistent with those of the Roads III program, are realistic, and have been maintained in the table;

[13] The PARPA defined the following as priority (or "fundamental") areas: education, health, infrastructure (including roads, energy, water), governance (including justice), agriculture and macroeconomic management.

- the projections for health in the draft sector expenditure paper (HSER 2002) were overstated, with $187 million recurrent spending projected for 2005. These projections cap the figure at $170 million;
- the draft education sector expenditure review (ESER 2002) did not present projections. The projections in Table 4 – with recurrent spending rising to $135 million by 2005 – are on a path which is well below that which would be required to put all children through primary school by 2015, the Millennium Development Goal. To achieve the MDG would require external finance for a considerable part of recurrent expenditures.

Table 4. Feasible ceilings on recurrent expenditures in selected sectors

	2002	2003	2004	2005
	- - *US$ millions* - -			
Current expenditures in PARPA priority sectors, viz. education, health, infrastructure (incl. roads, energy, water), governance, agriculture, macroeconomic	401	472	495	554
Feasible current expenditures in education, health and roads	269	312	332	373
Education	96	110	116	135
Primary	69	83	87	102
Secondary	26	27	29	33
Health	120	135	147	170
Roads	54	67	69	68
Memorandum items				
Current expenditures in education, health and roads as:				
a percentage of PARPA priority sectors	67	67	67	67
total recurrent spending	48	48	49	51

Sources: See macro framework, Table 3.

B. POVERTY AND THE INTERSECTORAL ALLOCATION OF RESOURCES

16. *Despite Mozambique's recent success, it remains one of the poorest countries in the world.* GDP per capita is $210 for Mozambique's population of 18 million. Some 69 percent of Mozambicans were below the poverty line in 1997; projections suggest that this figure had fallen by 2001.[14] The key determinants of poverty are slow economic growth until the 1990s; poor educational levels, particularly among women; high dependency rates; low agricultural productivity; lack of employment opportunities; and poor development of basic infrastructure in rural areas. In the agricultural sector, where poverty rates are higher, fewer than ten percent of households, poor and non-poor, sell surpluses of maize, cassava or cotton. Poverty by non-income dimensions is serious: the health service reaches only two-thirds of the population; illiteracy is 60 percent; only 35 percent of rural people have access to a protected water source. The target eight percent growth rate of the Poverty Reduction Strategy Paper (PARPA) would reduce the poverty

[14] See Simler and Harrower (2003). The projections were done using the household survey of 1996/7 and the CWIQ survey of 2001.

rate to 50 percent by 2010 and double the consumption level of poor households in 12 years.

17. *It is hence appropriate that allocations to poverty-oriented expenditures have risen.* Current budget allocations to health and education rose from 4.1 percent of the GDP in 1998 to 6.3 percent in 2002 (Table 5) – this on top of cumulative GDP growth of 35 percent in real terms in the period. As is shown in subsequent chapters, with the exception of upper secondary school and possibly tertiary health services, education and health benefits are distributed progressively compared to the distribution of consumption. Further rises in "priority spending" (largely education and health) are anticipated in the PARPA – from 68-69 percent of the total (current and investment) budget in 2001 to possibly as much as 75 percent in 2005.

Table 5. Actual recurrent expenditure by functional classification, 1998-2002

Item	1998 actual	1999 actual	2000 actual	2001 actual	2002 est.
	- -	*percentage of GDP*			- -
Total recurrent expenditures	11.2	12.2	13.8	14.2	14.4
General Administration	2.3	2.6	2.2	1.8	1.8
Education [a]	2.0	2.5	3.2	3.0	2.8
Health	2.1	2.4	2.8	3.5	3.5
Agriculture	0.2	0.3	0.3	0.2	0.2
Roads	0.7	0.7	1.0	0.7	1.4
Water	..	0.1	0.1	0.1	..
Residual, plus all other sectors [b]	3.9	3.7	4.2	5.0	6.1

Source: Extracted from Annex I, Table 38.

[a] Education includes primary, secondary and tertiary.

[b] The residual arises because the projected education, health, education, water and roads are subtracted from the ceiling recurrent expenditures. It also includes all sectors other than General Administration, Education, Health, Agriculture, Roads and Water. The increase to 6.1 percent of GDP in 2002 does not result from fiscal pressures in one or other of the "non-priority" sectors but from the way the residual is computed.

18. The split between recurrent and investment expenditures is best examined for the year 2000 as for that year, and that year only, full information on donor funding is available (Table 6). Donor funding accounts for 46 percent of all spending on education, 70 percent in health, 75 percent in roads and 75 percent in water. Much of this is on the recurrent account, e.g. drugs in health, periodic maintenance in roads.

Table 6. Recurrent and investment expenditure, by function, 2000

	Recurrrent	Investment	Total
	-- *percentage of GDP* --		
General Administration	2.2	1.7	3.9
Education [a]	3.2	1.8	5.0
Health	2.8	0.6	3.5
Agriculture	0.3	2.9	3.2
Roads	1.0	0.7	1.6
Water	0.1	0.7	0.8
Other [b]	4.2	5.3	9.5
Total	13.8	13.7	27.5

Source: Extracted from Annex I, Table 38.
[a] Education includes primary, secondary and tertiary.
[b] All sectors less General Administration, Education, Health, Agriculture, Roads and Water.

19. *Some further reallocation of resources towards the health sector may be needed.* As Table 7 shows, Mozambique's education and health spending surpasses, and water spending falls short of, the relative levels of countries at a similar level of development.[15]

Table 7. Budgeted sectoral allocations (recurrent and capital accounts) relative to total spending for selected countries, 2000/01

	Malawi	Mozambique	Uganda
	- *as a percentage of total spending* -		
Education	17.7	23.7	19.4
Health	9.8	11.4	10.8
Agriculture	11.1	4.0	4.4
Roads	3.8	5.2	13.7
Water	5.1	2.4	5.8

Sources: Budget books for Malawi, Mozambique and Uganda.

Such intercountry comparisons must be taken with extreme caution because of differences in measurement and in political, social and cultural factors. In this case the comparison might be taken to suggest that the reallocations towards the social sectors have gone beyond those of other countries and that it may be time for an increased focus on infrastructure. More pertinently, the analysis in the sectoral chapters shows that:

- in *education,* reallocations within the sector, and efficiency improvements, will probably be sufficient to achieve the key reforms, but even so the goal of universal primary school completion is unlikely to be attained by 2015 (para. 104, p. 61);
- in *health,* reallocations within the sector will not be sufficient to provide even modest levels of assistance to HIV/AIDS patients (para. 142, p. 76) ;

[15] It was decided to use *budgeted* resources for this inter-country comparison rather than *actuals*. This is because the data on actuals of the other countries is of mixed quality, frequently not accounting fully for donor-funded spending. Whereas the budgets generally reflect donor funding quite well.

- in *roads,* the desired program is adequately funded barring one element: the Government will need to fund periodic maintenance fully, by making an appropriate budgetary allocation, which could be funded by raising the petroleum tax to its previous level in real terms (para. 172, p. 86);
- in *water,* reallocations are called for, but these will not be sufficient to accomplish the Government's goals in urban water (para. 200, p. 94) and in sanitation (para. 202, p. 94).
- the called-for *civil service reform* with a major salary decompression (para. 40, p. 36) can probably be attained within the projected budget envelope of 7 percent of GDP, so that no additional reallocations from Government (or donors) are needed.[16]

20. The decision as to which of the competing needs – education, health, roads, water – should receive additional resources is not an easy one, because all the sectors make important contributions to economic growth and to poverty reduction. This study has not sought to quantify the marginal welfare impacts of competing sectoral investments. Given the poor state of monitoring (para. 35, p. 33), absorptive capacity is an issue in all the sectors, particularly in health, with its weak links between inputs and outputs (para. 115, p. 67), and water, where substantial under-execution of the budget is the norm (Table 33, p. 98). This said, it may be that spending will have to increase in the health area merely in order to protect the gains made hitherto, because the health posts and clinics will be increasingly beset by HIV patients with opportunistic diseases. Whereas in the other three sectors the existing allocations will be sufficient to preserve existing gains and make modest progress, provided intra-sectoral reallocations are done and provided the increased fuel tax moneys are applied to the periodic maintenance of roads. At the margin donor funds could be found to assist, but in the long run this would likely constitute a redistribution from other programs because aggregate grants are unlikely to exceed their current dollar level of between $350-$450 million annually. It is hard to avoid the conclusion that further savings will need to be found in order to provide at least a modest response to the ravages of HIV/AIDS.

21. Further examination will be needed to determine where the additional savings should be found, as this Review did not seek to examine in detail any sectors other than education, health, roads, water and agriculture. Nevertheless some suggestions can be made as to potential candidates for expenditure cuts:

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[16] Accurate costing for a significant salary decompression has not yet been done because the mode and the extent of decompression have not yet been determined. However, it is likely that the civil service reform could be attained within the projected budget envelope of 7 percent of GDP (the current figure), over the next four or five years, because (a) projected GDP growth of about 7 percent (in real terms) provides considerable room for maneuver, (b) the civil service program ought to freeze salaries at their current real levels, so that all the growth in the compensation envelope can be allocated to salary increases as the reform process gets under way; (c) the civil service reform process will entail substantial redeployment of staff, reducing the cost of separations, (d) given the presence of HIV/AIDS, the attrition rate has increased, providing more openings for redeployments; (e) it appears that substantial resources are going to "ghost employees", at least in one major sector, and that, if this finding is confirmed, these resources could be redirected to fund the salary decompression.

(a) among the PARPA non-priority sectors, which encompass the remaining 40 percent of the budget, the PARPA identified activities which, while not "fundamental" [17], are nevertheless "complementary activities" to the fundamentals, including policies for sustainable growth (transport and communications, technology, environmental management), social welfare programs, sectoral policies that contribute to income generation (business development, fisheries, mining, industry, tourism), and programs to reduce vulnerability to natural disasters. Consideration could be given to reducing spending on these "complementary activities" by, for instance, holding their allocations constant in real terms or applying a modest percentage decrease throughout in recognition of the fact that these are not the key priorities;

(b) outside of the "fundamental" and "complementary" areas are some natural candidates which could be considered for reduced spending:

- defense (budgeted spending for 2002 was $35 million or 3.4 percent of the overall budget),
- embassies (budget on the current account for 2002 was $20 million or 6 percent of the central government's share of the current budget)
- the "non-priority" part of the rubric "security and public order" ($20 million or 2 percent of the overall budget)[18]
- recreation, culture and religion, some of which might be turned over to the private sector ($13 million or 1.3 percent of the overall budget).

C. UPDATE ON THE REFORM OF FISCAL MANAGEMENT

22. *Introduction.* This, the 2nd phase of the PER, is focused primarily on sectoral expenditures and it will not attempt to re-examine these aspects in detail. Instead the aim is to update the reader on the actions taken arising from the agreed-upon action plans in the PEMR (2001). This will be done by going through the action plan, briefly explaining the objective of the action, and noting what has been done. The details on the background to each of the actions may be sought in the PEMR document (World Bank, 2001a).

23. *The PEMR found that the fiscal management system bore serious deficiencies*, particularly in public accounting, cash management and auditing. To name the key issues: Public accounting covered only a quarter of Government spending, ignoring *receitas próprias* (ministerial own receipts) and donor-funded expenditures. Cash management was inefficient and lacking in transparency because there were large

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[17] The PARPA defined the "fundamental sectors" as education, health, infrastructure (including roads, energy, water), governance (including justice), agriculture, and macroeconomic management.

[18] The *Orçamento do Estado Para o Ano 2002* (Maputo, Outubro 2001) has Mt 1,807 bn for "Segurança e ordem pública" in the overall functional classification of the budget (Table 9, p. 20). It has Mt 1,350 bn for the same rubric in the listing of priority expenditures in Table 11 on page 20. The difference is Mt 456 bn or about $20 m, or 1.9 % of total budget of Mt 23,867 bn.

numbers of Government accounts which were not being tracked. Internal auditing was ineffectual due to a lack of capacity and funding.

24. *The authorities moved boldly to modernize the system* in 2001 by passing a new law, the *Lei da Administração Financeira do Estado*, which in principle modernizes the entire fiscal management system. This bold step was taken in order to correct a set of difficult legacies from the past: single-entry accounting; a multiplicity of government accounts rendering cash management impossible; and limited budget coverage in that *receitas próprias* (ministerial own receipts) were tolerated and donor-funded expenditures not recorded. The key reform of the new law was to provide for an integrated financial management information system, entitled the *Sistema Integrado de Administração Financeira do Estado* (SISTAFE). In order to prepare the way for the SISTAFE, a three-phase program of actions was agreed upon with the authorities: "pressing actions" (reproduced in Table 8 below) to be done during the course of the preparatory work of the PEMR, "priority actions" (Table 9) to be done during 2002, and medium term actions for the period 2003-2005 (Table 10).

25. *Most of the short term "pressing actions" were executed* (Table 8). A new, more detailed functional classifier was introduced into the budget, consistent with UN guidelines, with a view to tracking poverty-related expenditures more accurately. However, its implementation was incomplete because only the broad categories were used. The detailed classifier, which will permit tracking of poverty-related expenditures, was not implemented but it is expected that this will be done in the course of the introduction of the information management system SISTAFE. The budget, which previously had been done in real terms, owing to the very high rates of inflation of the early 1990s, is now being done in nominal terms. The regulations of the new financial management law were completed. Restrictions were introduced on banks accounts held by public institutions in that they had to be authorized by the Direcção Nacional do Tesouro as a co-holder, and they had to be closed three months after the budget year to which they applied.

Table 8. Summary of Pressing Actions (was Table 7.1 in PEMR)

Area	Recommendations	Time Frame	Status in 2003
Budget formulation	Submit 2002 budget using new budget functional classification. Formulate the budget in current prices, starting with the 2002 budget.	End-2001	Partially done (only broad, not the detailed, classifier) Done
Legal framework	Draft the implementation regulations of the new public finance management law *(Lei da Administração Financeira do Estado)*.	March 2002	Done
Cash and asset management	Instructions on bank accounts of public institutions: authorized by DNT, DNT a co-holder, closed by DNT on March 31 of next year	End-2001	Done
Public accounting	2002 budget execution must be consistent with the new budget functional classification.	2001	Partially done.

26. *Progress with the "priority actions" for 2002 was good but is incomplete.* These are dealt with in the following paragraphs. To take the first line of Table 9, a significant share of *receitas próprias* should have been included in the 2003 budget. Progress to date covers only about half of the *receitas próprias*. An 11-strong list of items in health and public works are still excluded, not to mention the education, agriculture and other ministries[19]. Tax expenditures have not yet been included in the Budget; these were to be included in the 2003 Budget (line 1 of Table 9).

27. *Budget execution reporting has improved, but most donor-funded expenditures are still excluded* (line 2 of Table 9). The quarterly budget execution reports now present all actual expenditures using the new budget functional classification, but only in broad categories; the detailed classifier was not implemented. However, the revised appropriation of November 2002 was not reported in the budget execution report of the first quarter of 2003. A major step forward was made in the budget execution report of the first half of 2002 when for the first time tables were presented reporting donor-funded expenditures on the investment account. Yet as of late 2002 the reported executed expenditures were only 8 percent of the budget plan.

28. *Double entry accounting needs to be introduced* (item 4 in Table 9). The "complementary period" after the end of the fiscal year, during which payments may be made for commitments during the financial year, was reduced from three months to two. Some training in double entry accounting was done, but double entry has not yet been introduced throughout the system. The proposed shift from the *duodécimo* system of replenishment to modified accrual accounting is probably too ambitious for the time being. Until such time as the SISTAFE system is implemented, it would be more prudent to improve the replenishment system, through appropriate training, and make it more flexible. (See the further discussion at footnote 21, p. 31, and paragraph 39 on page 36.)

29. *Much remains to be done in cash management* (item 5 in Table 9). The multiplicity of Government accounts with the central bank and the commercial banks needs to be inventoried. Although "globalizing accounts" have been created with a view to moving to a single interlinked account arrangement, this has little meaning until such time as all the accounts are interlinked and the Ministry of Finance is able to read off in real time the amount of cash held.

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[19] Some progress was made in that the "receitas consignadas" in the Budget increased from Mt 48.3 bn in 2001 to Mt 67.6 bn in 2003 (in real 1998 Mt), viz. an increase of 40 percent. This amount ($6 m) would be increased by another $3m by adding in just the identified *receitas próprias* in the ministries of health and public works. Of a list of 11 *receitas próprias* in these ministries, turned up by a Government-sponsored study (Austral Consultoria, 1999), none had been included in the 2003 budget. They are: 1. HCM Serviço de clínica especial. 2. HCM Serviço de atendimento especial. 3. Direcção Nacional da Saúde: Venda de medicamentos pelo Serviço Nacional de Saúde. 4. Centro Regional de Desenvolvimento Sanitário: Alojamento e habitação pagos pelos estudantes. 5. Produção de material didáctico. 6. Comissão Central de Avaliação e Alienação de Imóveis de habitação do estado. 7. Laboratório de Engenharia de Maputo: Venda de ensaios laboratoriais. 8. Fundo de Fomento de Habitação (FFH): Percentagem na venda de imóveis do Estado. 9. FFH: Juros. 10. FFH: Venda de casas construídas com crédito. 11. ARA-Sul Laboratório de Engenharia de Moçambique: Venda de águas brutas. Probably the other ministries would account for at least another $3m.

30. *Much remains to be done in internal control and auditing* (item 6 in Table 9). The internal audit department (IGF) was to have its own budget line, but this was not done. It was also to be strengthened with new hiring but this is still under consideration. The budgetary allocation for the Administrative Tribunal was increased by 10 percent in real terms between 2001 and 2003. It was proposed that the Administrative Tribunal set up partnerships with private auditing firms and twinning arrangements with foreign supreme audit institutions, but as of 2003 such arrangements as had been made have had only a low level of impact.

Table 9. Summary of Priority Actions (was Table 7.2 in PEMR)

Area	Recommendation	Time Frame	Status in 2003
1. Budget coverage	*Receitas próprias*: Ensure that a significant share of own source and earmarked revenues currently outside the budget are included in the 2003 budget. Include in the budget documents submitted annually to the National Assembly information on tax expenditures starting with the 2003 budget.	2002	Little accomplished (see text) Not done
2. Reporting	Quarterly budget execution reports should present (i) the initial budget allocation, (ii) the revised appropriation (if any) and (iii) all actual expenditures according to the new budget functional classification. Include an annex to the budget execution reports with information on donor-funded actual expenditures according to the action plan prepared by the MPF	2002	(i) not done, (ii) not done, (iii) partially done Some partial reporting started
3. Legal framework	Implement the new public finance management law through the approval and implementation of the regulations and according to a time-bound action plan.	2002	Action plan & regs. done, being implemented
4. Public accounting	Issue instructions to spending units reducing the complementary period for FY 2002 by 1 month. Launch a training program on double-entry accounting and modified accrual accounting	Before Oct. 2002 Apl 2002	Done Some training launched
5. Cash and asset management	Inventory all bank accounts of public institutions in the *Banco de Moçambique* (BM) and in commercial banks. Close all bank accounts not related to the 2002 fiscal year. Create globalizing bank accounts for revenue and expenditures in BM. Create task force composed of MPF and BM staff to monitor the introduction of the treasury single account and the new payments system.	Mar 2002 Jun 2002 2002 Jan 2002	Not completed Done Not completed Done
6. Internal control and auditing	Introduce specific budget lines for the internal audit department (IGF) in the 2003 budget and allocate an appropriate level of resources. Continue to implement reforms to raise IGF's capacity. Increase budgetary allocation in favor of the Administrative Tribunal (TA) Grant the TA the ability to set its own salary scale. Administrative Tribunal should establish partnership agreements with private audit firms, and a twinning arrangement with a foreign Supreme Audit Institution.	2002	Not done Done (10% in real terms) Not done Not effectively done

31. *The medium term program of fiscal management reform needs to be addressed.* The elements in the medium term reform program of the PEMR (2001), reproduced in Table 10, are still valid and can be addressed while the SISTAFE is being implemented. Few of them have been addressed so far. It is proposed that the authorities seek to adhere to the original timetable. Among the major elements here are:

- the enhancement of the role of the Medium Term Financial Framework.[20] Making the MTFF into an operational instrument will aid budgeting and execution in the sectors that are studied in this PER. As is stressed in the subsequent chapters, the lack of a medium-term perspective results in purely incremental budgeting (viz. X percent increase over last year's) with no real link with activities or outputs or outcomes;
- the introduction of double-entry accounting, under the cash basis[21];
- cash planning and budgeting are among the corner stones of the conceptual business model underlying SISTAFE and an integral part of the design of the system. Introducing monthly and annual cash plans will enable more rational use of resources, resulting in considerable savings because it will be possible to hold less (non-interest-earning) cash overall and resort less frequently to using treasury bills. This will be done while the SISTAFE is being installed. Once the SISTAFE is running the development of such plans will be strengthened;
- reports on domestic and external debt, lending, cash flows, and tax expenditures alongside the *Conta Geral do Estado* will enable a comprehensive view of state finances which is one of the ultimate objectives of the new Financial Management Law[22];
- auditing the state accounts (*Conta Geral do Estado*) within 12 months of the close of the financial year will enable Parliament to exercise closer control of the expenditure process. Whereas presently the long delays[23] in issuance of the documents render the documents irrelevant.

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[20] Note that the Direcção Nacional do Plano e Orçamento issued a study, "A experiência com o Cenário Fiscal do Médio Prazo e opções para seu futuro desenvolvimento" (2003).

[21] A modified cash basis of accounting will be applied with the implementation of SISTAFE through the introduction of a budget credit system against which commitments will be registered and accounted for when a transaction is incurred. The release of credits will serve as virtual cash allocations and will determine and control the ceiling of spending per budget line item. In the meantime, while the SISTAFE system is being implemented, the replenishment ("*duodécimo*") system needs to be made more flexible and training should be given to enable the lowest level units to operate within it efficiently. See also the discussion at paragraph 39 on page 36.

[22] Note that under the cash basis of accounting, as defined by the Public Sector Committee of the International Federation of Accountants (IFAC), it is standard to include information about accruals, *as memorandum items, not ledger entries*. The following are normally reported: financial assets receivable, long term debt, contingent liabilities and guarantees, and other liabilities.

[23] The *Conta Geral do Estado* for 2001 became available to the public in early 2003.

Table 10. Summary of Actions for the Medium Term (was table 7.3 in PEMR)

Area	Recommendation	Time Frame	Status in 2003
Budget formulation	*Medium Term Financial Framework (MTFF):* Reinforce the MTFF by (i) integrating it in the decree for the revised regulations of the SISTAFE and (ii) making it a public document.	2003	Not yet done.
	Planning documents: (i) Eliminate the Three-Year Investment Plan (PTIP) as a stand-alone document and treat investment expenditures within the normal budget formulation process. (ii) Develop the Economic and Social Plan (PES) as the key instrument to monitor and program the implementation of the PARPA.		Not yet done
Public accounting	Launch the introduction of double-entry accounting.	2004	Now expected in 2004
	Free the accounting department (DNCP) of all activities not related to accounting and reporting.	2003-2004	Not yet done
Reporting	Develop and make available on a regular basis, financial reports in addition to the *Conta Geral do Estado,* starting with (i) a report on short and medium-term external and domestic debt, (ii) a report on lending and on-lending, (iii) reports on cash flows and (iv) a report on tax expenditures.	2003-2004	Now envisaged for a later phase of the SISTAFE.
Cash and asset management	Introduce a treasury single account simultaneously with the new integrated financial management information system.	Sept. 2003	
	Improve financial planning with the introduction of annual cash plans, budget implementation plans and monthly cash plans.	2004	Now expected in 2004
	Tax administration: (i) Extend the current mechanism of VAT collection through the banking system to other taxes after assessing its feasibility by banks operating in Mozambique. (ii) Introduce, whenever possible, a single document *(Documento Único)* for the collection of all taxes.		Not yet done
Internal control and auditing	Ensure that the state accounts *(Conta Geral do Estado, CGE)* are audited within 12 months after the end of the fiscal year, starting with the 2003 CGE.	2004-2005	To be done in 2004
	Launch budget evaluation function.		

32. *An ambitious timetable has been set for the installation of the SISTAFE.* During 2001 and 2002, the technical unit for reform of State Financial Management (UTRAFE, "Unidade Técnica para a Reforma da Administração Financeira do Estado") was set up and the regulations for the new law were prepared. At the same time planning was done for the installation of the information management system SISTAFE. A budget of $27 million was developed, and funding for the bulk of it was secured from donors including the World Bank. The timetable (UTRAFE 2002, p.12, UTRAFE 2003, p. 2) anticipates procurement (viz. determination of the IT architecture and account component package) in the second half of 2003, roll-out of the system in the Ministries of Finance and Education in the last quarter of 2003, and extension to the remaining sector ministries in 2004. The focus will initially be on the introduction of a single treasury account in 2003 for all line ministries and the improvement of accounting. After 2004 the focus will shift

to internal control, auditing, accounting for state property (*Patrimônio)* and debt management.

33. During 2001 the IMF and the Bank engaged the government, in the context of the HIPC, in an overall plan for public expenditure management reform which brings together the different elements – PEMR (2001), the SISTAFE, and items in the Fund's Poverty Reduction and Growth Facility (PRGF). This was termed the *Public Expenditure Management Country Assessment and Action Plan* (Fiscal Affairs Department *et al.*, 2002). It developed 15 benchmarks of the quality of public expenditure management. A March 2002 Board paper reported that, as with most HIPC countries, Mozambique scored poorly, with 5 benchmarks met. It is not necessary to report the details here because the key problems were identified in the PEMR (2001) and the update above conveys the actions which the Government is taking to right the situation.[24]

D. CROSS-CUTTING ISSUES IN SECTORAL SPENDING

34. Several specific themes came up repeatedly during the work on the five sectors (education, health, roads, water, agriculture). It is economical to treat them all in a consolidated fashion here:

- a policy process which underplays prioritization and monitoring of outcomes, leading to poor statistics;
- chronic underspending in certain sectors;
- the need for civil service reform; and
- the need for progress with decentralization.

Another common theme is the impact of **HIV/AIDS**. Since there are differences in its causality and the extent of its impact across sectors, this discussion is placed in the sectoral chapters – in education sector on page 59, and in health on page 76.

The policy process, expenditure prioritization, and outcomes

35. *Problems with the policy process lead to poor monitoring and serious informational gaps.* Mozambique faces the dual problems of a lack of government leadership and a lack of prioritization in expenditures. In turn this is linked with a lack of focus on outcomes, as was stressed by the first annual progress report on the PARPA (Republic of Mozambique, 2003). Like some other countries in receipt of large amounts of external funding, Government does not consistently direct expenditures in line with nationally determined objectives. The policy process does not always consist of formulating a strategy and then having donors contribute to specified parts of it. Instead donors make proposals and, in a decentralized fashion, projects are taken on. The result is a mosaic of programs based on different philosophies, of differing quality, and with

[24] In addition, DfID undertook a fiduciary risk assessment covering several of these areas (Lønstrup, 2002).

widely differing cost structures (e.g. in school construction, waterpoint development). The symptoms of this fundamental problem manifest themselves in several forms:

- Outcomes are frequently not measured or reported, and in general have scant bearing on the policy process.
- It is extremely difficult to obtain data on donor-funded expenditures, and particularly actuals. Hence it is difficult to obtain information on unit costs and it is virtually impossible, without a dedicated PER-type of exercise, to compare the relative efficiency of differing approaches and programs.
- There are few data on programs. Basic information such as their geographical location, the intended beneficiaries, disbursements, measures of their output and impact, etc. are hard to come by. This was true to a greater or lesser extent of all the sectors studied – education, health, roads and water.
- The financial projections in the Medium Term Financial Framework (MTFF) and latterly the PARPA are only loosely related to actions undertaken.
- Government strategies sometimes consist of broadly expressed ideals and statements of intention to produce precise analyses and recommendations (see esp. the PESS, Health Sector Strategic Plan).

36. *Consequently the sector-wide programs failed in their informational aims.* A sobering discovery of this public expenditure review is that none of the sector-wide programs in education, health, roads or agriculture automatically provided data linking expenditures, outputs and outcomes. Similarly the review of the policy process by Chichava *et al.* (2001) found that the mechanisms of collection and dissemination of data within government are insufficient. While most sectors produce vast amounts of data, the key elements for public expenditures and for decision-making were often absent. Specialized and arduous efforts were required to obtain basic expenditure data (especially donor-funded expenditures) in these sectors (as well as in water).[25,26] There was a conspicuous lack of data on ministerial own receipts (*receitas próprias*) in education, health and agriculture. In health, there were no breakdowns of spending by level (e.g. hospitals vs. health posts), location (capital, town, rural) or vertical program (e.g. malaria).

37. *It is proposed that the Government seek to correct the policy process by using the PARPA to prioritize and expand its leadership.* The Government has already started this process by initiating work on more precisely defining the targets of the PARPA and bringing the "priority ministries" closer to the process of pursuing these goals. During 2003 the Government initiated a series of "Poverty Observatories" at which the key documents – particularly the PARPA and the Annual Progress Report on the PARPA –

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[25] Reliable data on donor-funded expenditures were not available for education for any recent year other than 2000; they were not available for health for 2001; those on roads were made available, but are not reliable for any recent year.

[26] For details on sources, and the nature of the gaps in information, the reader is referred to Table 38 on page 111.

would be discussed with the sectoral ministries and with key stakeholders outside the Government. To support this process, the following could be added:

- An element of public expenditure analysis and review should progressively be integrated into the cycle of financial management. This may entail analyzing a handful of sectors per year, and may incorporate the hiring-in of the necessary skills. In time, such review could become a constitutive element of the budget cycle, as has been done in some countries of the region (see Moon, 2003), although this is likely to require considerably more capacity than is available at present. The review of the policy process by Chichava *et al.* (2001) recommended the creation of a cadre of public policy analysts. The Ministry of Finance is seeking, through this PER, to create such in-house capacity, but much remains to be done;
- The action plan of the Public Expenditure Management Review (2001) should be completed, creating mechanisms for reporting information on donors' contributions;
- Civil service reform is needed, linking compensation to performance, and providing appropriate levels of compensation (see p. 36). The present environment of inadequate compensation creates undue incentives at the ministerial and sub-ministerial level for seeking donor-funded projects as these usually provide some level of benefits to the operating units. This in turn becomes the driver of project selection, rather than the desired "bird's eye view" which determines the portfolio in the light of the overall goals and outcomes. At the same time as civil service reform there should be a general tightening up of the conditions for ministerial own receipts (*receitas próprias*); for if there is proper compensation there is no need for extra-budgetary transfers to support hiring and staff retention.
- The donors should increase the share of their contributions that is channeled directly through the budget. In order to increase their confidence in the fiduciary system, the Government should pursue the program of reform of public finance – thoroughgoing procurement reform, improved accounting and auditing, and the establishment of the information management system SISTAFE.

Chronic sectoral underspending

38. *Some sectors underspend regularly,* especially the water and health sectors, and in some years in the roads sector. The water sector spent an average of 63 percent of its current budget allocation between 1999 and 2001. The health sector spent 86 percent of its recurrent budget in 1999 and 80 percent in 2000[27]. There are considerable intra-province differences in execution rates in the health sector, e.g. in Zambézia, execution rates for the 1999 budget range from 98 percent to 52 percent (HSER 2002 p. 66).

[27] See also the study by Harding (2003).

39. There were two main causes of underspending: (a) the lack of capacity to operate the *duodécimo* allocation system, which is essentially one of replenishment of accounts against rendering of accounts (*viz.* proof of correct use of the funds, or *prestação de contas*) in the previous month; and (b) the timing problem since late arrival of the first *duodécimos* puts some sectors (e.g. education) in acute difficulties because their greatest needs arise at the beginning of the year. In some ministries the first *duodécimo* arrived between five and seven months late in recent years. The replenishment arrangement – standard in the region – is good because it creates a powerful incentive for accountability, helping to limit overspending. Specific training is needed in accounting and the use of the *duodécimo* system to make it work without undue delays. The timing problem can readily be addressed by having the relevant sectoral ministries agree with the Ministry of Finance to align the time pattern of advances more closely to the time pattern of expenditures. (Eventually this arrangement ought to change as coverage of the SISTAFE increases, gradually including more operational units in the "single treasury account": for under this arrangement no advances will be given, but operational units will make commitments, payments for which are executed by the central treasury.)

Civil service reform

40. *In most sectors, salaries are well below comparators* (equivalently skilled private sector workers, or civil servants in neighboring countries), particularly at the upper skill levels and for technical and professional staff. Doctors, for instance, are paid about 50 percent less than in Lesotho or Botswana (HSER, 2002). A study in 2002 revealed very large differentials between public sector and private sector compensation (Table 11). After taking into account subsidies and benefits, the private sector premium was 160 percent for nurses and 210 percent for professionals such as accountants. Numbers of a similar magnitude were turned up by a study in 2000 (Sulemane and Kayizzi-Mugerwa, 2001): 200 percent for senior managers, 280 percent for professionals, and 580 percent for unskilled workers. Differentials of this magnitude are well in excess of the non-monetary benefits conferred by public service such as security of employment.

Table 11. Ratio of private sector to public sector compensation

Occupational group	Ratio: private to public compensation [a]
Nurses	2.6
Professionals [b]	3.1

Source: *Pesquisa Salarial* (2002), Tables 5 and 6.
[a] = salary + subsidies + benefits.
[b] Economists, managers, lawyers, auditors, accountants, engineers, IT experts.

41. *Poor remuneration undermines the civil service.* It is difficult to attract high-quality motivated staff, and staff are induced to use various "off-budgets" or dual employment arrangements to supplement their salaries. For instance, some ministries operate funds to which clients contribute in exchange for services, but which are not recorded on the budget. A Government-commissioned study on off-budgets (Austral, 1999) found that substantial funds are not captured by the budget process and that many of these lack a legal basis – the health ministry in 1998 collected $3.8 million (37 percent

of its current budget allocation) and the public works ministry $0.8 million (107 percent of its current budget allocation), in the form of various fees. None of this had been moved on-budget by 2002. Some part transferred to staff in the form of vehicles, training courses and other rewards, as is done also with the budget category "other goods and services" in health (see HSER 2002). Over-charging beyond the official user fees occurs in the health sector.[28] Certain ministries pay under-cover subsidies of 80-100 percent of the base salary (*Pesquisa Salarial*, 2002, p. 31).

42. *In one sector – education – certain salaries are well above comparators.* The salaries of secondary school teachers are approximately double the salaries in comparable countries, in per capita GDP terms. Salary moderation may be needed to accomplish the expansion of the system so as to achieve the poverty reduction and development objectives of the PARPA.

43. *An investigation is urgently needed of the correspondence of salary payments and the personnel register.* Evidence in the education sector suggests that about 15-20 percent of employees are "ghost workers" (see the education chapter). Civil service compensation increased by 46 percent in real terms between 1999 and 2002[29], rising as a percentage of GDP from 5.8 in 1999 to 6.5 in 2002. Civil service employment did not increase in anything like this measure. No breakdown of the increased pay is available – e.g. to explain the components of salary increases, increases in death and disability payments due to HIV/AIDS, benefit changes, and increases in personnel. Indeed even the number of civil servants is not known with accuracy, estimates ranging from 106,500 (in the year 2001)[30] to 121,562 (in the year 2000)[31]. The number of workers in the personnel register (SIP, Sistema de Informação de Pessoal) is also not known with accuracy: it had 83,777 persons in 2001 according to MAE staff[32], but 99,158 persons in 2001 according to UTRESP, (2002). Given the lack of clear information, the deficiency of the SIP compared to actual employment, the unexplained increases in remuneration, and the alleged ghost employees in certain ministries, it is urgent that a thorough investigation be launched. It could be that considerable savings could be made through checking the correspondence of the personnel register and the salary bill.

44. *The public sector reform program will introduce salary reform once the basic personnel reforms are done.* The Public Sector Reform program, supported by the World Bank and other donors, got under way in 2002. Three ministries – health, education and agriculture – will serve as pilots for the reform process which will reorganize the ministries' employment configuration in terms of their fundamental objectives, and also link performance to remuneration. Once these building blocks are in place, the salary reform will be introduced. Since the costs will be considerable, it may be that donor support will be sought initially, on a decrementing basis until the government is able to

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[28] See HSER, 2002, p. 73, and the discussion at paragraph 120 on page 68.

[29] See footnote 11.

[30] UTRESP, 2002, p. 5.

[31] Sulemane and Kayizzi-Mugerwa, 2001, p. 9.

[32] A breakdown of SIP employees by "carreira" supplied to the Bank and the Fund in February 2001.

shoulder the burden itself; though if the investigation of the personnel register called for above secures sufficient savings. The timing of the reforms is uncertain, as is the magnitude of the salary adjustments and the component of donor assistance, and so no attempt is made here to reflect the salary increases in the fiscal projections.[33]

Progress with decentralization

45. *The PEMR (2001) highlighted the important role of decentralization* and deconcentration for the improvement of fiscal management and service delivery in a country as vast and diverse as Mozambique. So far, the strategy of reform of the state has been pursued both in terms of decentralization in the urban zones (granting municipalities greater political, administrative and fiscal autonomy), and deconcentration in the rural zones (delegation of some responsibilities, while retaining fiscal control, to provinces and districts). From a fiscal perspective, this seems an appropriate model in the specific case of Mozambique as most "taxable" economic activities are concentrated in cities and towns. A very gradualist approach has been followed so far regarding the extension of responsibilities to provinces and districts. This gradualist approach seems appropriate especially in light of the dearth of capacity in public administration that is especially acute outside Maputo. However, the PEMR also argued in favor of re-thinking and expanding the capacity and the role of provinces and districts vis-à-vis the central government. In this context, the PEMR underlined the importance of reforming the current system of *dupla tutela* of provincial directorates both to their sectoral ministry and to the governors, since this system is not readily compatible with the process of decentralization.

46. Administratively, Mozambique is divided into 10 provinces and 128 districts. The only form of elected local government is the 33 urban municipalities. The municipalities enjoy a significant degree of administrative and fiscal autonomy, and their mandate includes economic and social development, basic sanitation, public services, health, education, culture, leisure, and sport, policing, and urban infrastructure, construction, and housing. The legal framework provides for the gradual transfer of functions and revenues over time as municipalities are ready to assume them. As yet, however, most municipalities have come to exercise authority in only a limited number of sectors, notably policing and sanitation.

47. *In practice, the administrative system remains highly centralized.* Some progress has been made with deconcentration to the provincial and district levels in all of the four sectors analyzed in this study, namely education, health, roads, and water and sanitation. Further, in the roads and the water and sanitation sectors, decentralization of responsibilities to the provincial level has been approved. This remains on paper, however, due to the lack of capacity at the provincial level and the fact that funding has not yet been decentralized. Here follows a brief review on the current plans for deconcentration or decentralization in each sector.

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[33] See footnote 16, p. 26.

48. *In education, a certain amount of deconcentration is already effective.* The provincial directorates are responsible for managing some 25 percent of the total number of sectoral projects. No provision has been made, however, to increase the autonomy of provincial and district administrations, not even concerning simple responsibilities such as setting the school calendar to adapt to local needs.

49. *In the health sector, deconcentration at the provincial level is also fairly advanced*, with the Provincial Directorates for Health playing a significant role in the intra-provincial allocation of resources. An increase in the extent of decentralization is envisaged for the future. The Strategic Plan approved by the Council of Ministers in 2001 advocates the intention to improve organizational performance through a gradual process of decentralization of resources, decision-making power, and planning and management functions within the Ministry of Health to the provincial branches. In this framework, the Government will prepare a 'Health Sector Decentralization Program'. In practice, however, this has not progressed beyond general discussions of (i) the possible separation of the Ministry of Health as a funding and regulatory agency, and the NHS as a service provider; (ii) further decentralization of budget management responsibility to the provinces; and, (iii) the extent of autonomy of large facilities, particularly the Maputo Central Hospital.

50. *Efforts are being made to deconcentrate (and later decentralize) the operations of the water and sanitation sector.* As from 2002, responsibility for National Directorate of Water (DNA) local procurement and the payment of contractors and suppliers has been transferred to the provinces. Public works capability at the district level is being built up. This is, however, a slow process, due to shortages of trained staff. Nevertheless, the DNA is clearly moving in the right direction, to the eventual benefit of rural water supply and sanitation service provision.

51. *In roads, much progress remains to be made in devolving responsibilities.* The Government's policy is to increasingly shift responsibilities to provincial, municipal and local authorities. Responsibilities for routine maintenance on all classified roads (including national roads), as well as responsibilities for periodic maintenance and rehabilitation on tertiary roads, have formally been devolved to the Provincial Departments of Roads and Bridges (DEPs). These are organs of provincial government, accountable to both provincial and central Ministry of Public Works (MOPH) authorities. However, technical and management capacities at the provincial levels are weak and almost all provincial funding for roads management is still allocated via the Road Fund, which is controlled by the National Roads Administration (ANE). As a result, planning and contract management support continues to be provided through ANE regardless of the formal separation of authority. In addition, provincial or lower level (district, municipality or community) advisory road commissions are nonexistent, and there does not appear to be any effective provision for their establishment or operations. Although a variety of donor-sponsored technical assistance programs are aimed at strengthening provincial capacities, it would be unrealistic to expect that road-sector management will be effectively decentralized for some time to come.

52. *The Government should continue to gradually decentralize administrative and fiscal responsibilities, and increase the amount of training* in public administration at local level. The Government should act to expand the capacity and the role of local

administrations vis-à-vis the central government, by introducing adequate training programs and gradually transferring fiscal and administrative responsibilities. In this context, it will be important to reform the current system of *dupla tutela* of provincial directorates, since this system is not readily compatible with the process of decentralization.

CHAPTER 3. EDUCATION

A. INTRODUCTION

53. The Government's objectives in the education sector are to provide universal primary schooling and to improve the efficiency and quality of teaching.[34] To achieve these objectives expenditure on education has increased by 50 percent in real terms over the last 5 years. Both recurrent and capital expenditures have remained substantially skewed in favor of primary education, although there has been a small increase in the percentage allocated to secondary and higher education.[35] The increase in expenditures has been matched by a doubling of enrolment rates at all levels of education, including most notably an increase from 56 percent to over 100 percent between 1992 and 2001 in Gross Enrolment Rates (GER) for primary education. This increase reflects an extraordinary rate of expansion in the provision of education in Mozambique over the last few years.

54. Household education has a large positive impact on the level of consumption per capita. The importance of ensuring that children from poorer households attend school is underscored by the large role of low educational attainment as a determinant of poverty. OLS regressions using data from the 1996/97 Household Survey indicate that households with better educated adults have significantly higher consumption per capita, and that in general this difference is greater in urban areas than in rural areas (Handa *et al.*, 1998). The average level of consumption per capita of urban households with some primary education is higher by 7 percent compared to households with no education (10 percent for rural households). Consumption per capita is higher by 27 percent if the highest level of education in the household is EP1 (16 percent in rural households). It is higher by 57

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[34] These objectives are consistent with the Government's Education Sector Strategic Program (ESSP), currently under implementation, and with the education *Millennium Development Goals* of universal enrolment and completion of primary education by 2015.

[35] The education system in Mozambique is structured as a 5-2-3-2 system: 5 years of lower primary school (Ensino primário 1 or EP1, Grade 1-5), 2 years of upper primary school (Ensino primário 2, or EP2, Grade 6-7), 3 years of lower secondary school (Ensino secundário geral 1, or ESG1, Grade 8-10) and 2 years of upper secondary school (Ensino secundário geral 2, or ESG2, Grade 11-12). Technical and vocational education is structured into 3 tiers: elementary, basic and medium. Teacher training programs for primary school is divided into 2 levels: basic (CFPP, for Grade 7 + 3 years of training) and middle (IMAP, for Grade 10 + 2 years of training). Secondary school teachers are trained at the Pedagogical University. The education system is almost entirely public at the primary and secondary level (less than 2 percent of primary schools and 4 percent of secondary schools are private or semi-private) and therefore no distinction is made between private and public schools in the rest of the chapter. Higher education institutions are under the tutelage of the Ministry of Higher Education and Technology. There are currently ten higher education institutions in Mozambique, half of which are public.

percent if the highest education level in the household EP2 (36 percent in rural households), and by 97 percent if the highest education level in the household is secondary or higher (57 percent in rural households). The results highlight that household education has a large positive impact on the level of consumption per capita. The results also highlight the importance of female education, particularly in rural areas, possibly due to the observation that women in Mozambique are responsible for much of the agricultural work, which is the primary source of subsistence in Mozambique.

55. While significant progress has been attained towards universal access to primary education, little progress has been made in improving school completion rates which remain extremely low, particularly for girls and in poorer provinces. The education system remains very inefficient when compared to neighboring countries, with the average actual cost per primary student three times its expected level. Given that further increases in resources are not available, improvements in efficiency and significant reductions in unit costs will be necessary to finance the planned expansion to universal primary education enrollment and completion by 2015. Furthermore, even larger improvements in efficiency will be required in the future to allow the expansion of upper primary and secondary education. Additional concerns arise from the wide gender gap in education (especially at the post-primary level), the regional disparity in public funding for education, the high share of costs borne by households, and the increasing impact of HIV/AIDS.

56. This chapter reviews the Mozambique education sector with a view to identifying the critical issues for the optimum use of public expenditures. The chapter begins by discussing the key trends in access, performance, efficiency and quality. It then discusses the allocation of public expenditures, its impact on poverty, assesses the likely impact of HIV/AIDS, and concludes by suggesting policy priorities.

B. KEY EDUCATION SECTOR ISSUES

Student flows:

57. *In spite of significant gains in access to primary education, enrolment in upper primary (EP2) and secondary education (ESG1 and ESG2) remains limited.* Gross enrolment rates (GER)[36] have increased very rapidly at all levels of education, with the biggest improvement for EP1 (from 56 percent in 1992 to over 100 percent in 2001). About one million children aged 6-11 (37 percent of the age bracket) remain out of school, however.[37] EP2 enrolment rates doubled, from 13 percent in 1992 to 28 percent in 2001, but remain low. GER are also extremely low for secondary education, at 8 percent and 2 percent for ESG1 and ESG2, respectively. The enormous gap between the

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[36] The GER is defined as total enrolment at an educational level regardless of age, expressed as a percentage of the school-age population in a given school year; therefore, it is sometimes higher than 100 percent.

[37] It should be noted that this number includes both children who never attended school and children who were at school but then dropped out prematurely after the first few years. As will be discussed below, the latter tends to be the most serious problem for primary education in Mozambique at present.

enrollment rates for EP1 and EP2 implies that significant progress is needed to achieve the Government's goal of universal primary school completion (7 years) by 2015.

58. *Geographical disparities in education access are large and continue to increase.* There are great provincial variations in adult illiteracy, with higher average levels in the Northern provinces (72 percent in 1997) compared to the Central provinces (63 percent) and lowest in the Southern provinces (39 percent). The GER in EP1 varies substantially across provinces, ranging in 2001 from below 90 percent in several Central and Northern provinces to over 130 percent in Southern provinces. The GER for EP2 also varies substantially. Since recent growth in the GER has been highest in those provinces that already had higher GER, provincial inequalities have in fact been widening. Completion rates of EP1 follow a similar pattern.

59. *Significant gender differences in access to education persist.* The literacy rate in 1997 was 57 percent for men and 26 percent for women. GER of both sexes in primary education increased at about the same pace between 1997 and 2001, so the absolute gender gap in EP1 enrolment has remained about the same. On average, GER for girls are about 23 percent lower than for boys, but the gender gap in education differs substantially across provinces. The gender gap in enrolment rates is about 10 percent in the Southern region, but reaches 35 percent in some Central and Northern provinces.

Student repetition and completion rates:

60. *School completion rates remain extremely low.* The average repetition rate in primary education (EP1 and EP2) is very high (25 percent) compared to neighboring countries such as Tanzania (2 percent), Zambia (3 percent), and Malawi (18 percent) (figures for 1995, UNESCO 2000). The average drop-out rate for primary education (EP1 and EP2) is also high, at around 13 percent. Such high repetition and drop-out rates result in extremely low completion rates. Despite improvements in recent years, only 36 percent of students admitted to Grade 1 complete the EP1 cycle.[38] This compares with 81 percent in Tanzania and 70 percent in Zimbabwe. The completion rate is progressively smaller at higher levels of education, with only 24 percent of the student cohort graduating from EP2, and 1 percent graduating from ESG2 (Table 12). This compares with completion rates in Zambia of 63 percent to Grade 7 (EP2 equivalent) and 18 percent to Grade 12 (ESG2 equivalent) (figures for 2000, Oxford Policy Management 2002).

[38] Completion rate is defined as the number of students passing the relevant grade divided by the number of children of official graduation age in the population.

Table 12. Completion rates of EP1, EP2, ESG1 and ESG2 in 2001

	Average	Girls
EP1	36%	32%
EP2	24%	20%
ESG1	9%	6%
ESG2	1%	1%

Source: Plano Estratégico de Educação, Ministry of Education, 2002.

61. *Drop-out, repetition and completion rates vary significantly across provinces.* Drop-out rates for primary education in Central and Northern provinces are roughly double those in Southern provinces. Similarly, gross repetition rates for primary school (EP1 and EP2) vary from 19 percent to 30 percent across provinces.

62. *Significant gender differences also persist in drop-out and completion rates.* The drop-out rate is higher for girls compared to that of boys, which results in a large gender gap by the end of EP1 (Table 12).[39] The completion rate for EP1 is approximately 40 percent for boys and 32 percent for girls. Similarly, the completion rate for EP2 is 28 percent for boys and 20 percent for girls. The gender gap continues in secondary education.

63. *The precise cause of the high drop-out and low completion rates is unknown and needs to be investigated with an in-depth study.* It is not clear to what extent high drop-out is due to demand side factors (direct costs, opportunity costs, poverty, etc.) or to supply side factors (incomplete schools, distance to school, language of instruction, quality of services offered, gender of the teacher, school calendar and hours of instruction, etc.). The precise causes of the low completion rates are multifaceted and are not well understood. These need to be investigated with an in-depth study.

64. *On the demand side, the direct costs of schooling are an important cause of the high drop-out rate.* The results of the *Questionário de Indicadores Básicos de Bem-Estar* (QIBB) indicate that the three main reasons for school drop-out are that school is too expensive (29 percent), that studying is not useful (29 percent), and that the school is too distant (11 percent) (*Instituto National de Estatística*, 2001).[40] This finding is in line with the results of an ADB survey (African Development Bank, 2002), where household poverty was the main reason cited for not attending school: 38 percent of the 6-12 year olds and 27 percent of the 13-17 year olds not enrolled in school said school was "too expensive". Similarly, in the results of the 1996/97 household survey fees were cited frequently by rural households as a primary reason for not sending children to school (Handa *et al.* 1998; also see the analysis presented in Section D below). These results suggest that one of the main motives for low school enrolment rates and drop-out rates is the high cost of schooling related expenses (such as matriculation fees, school supplies,

[39] Note that the bulk of the gender disparity is concentrated in the first two classes of EP1.

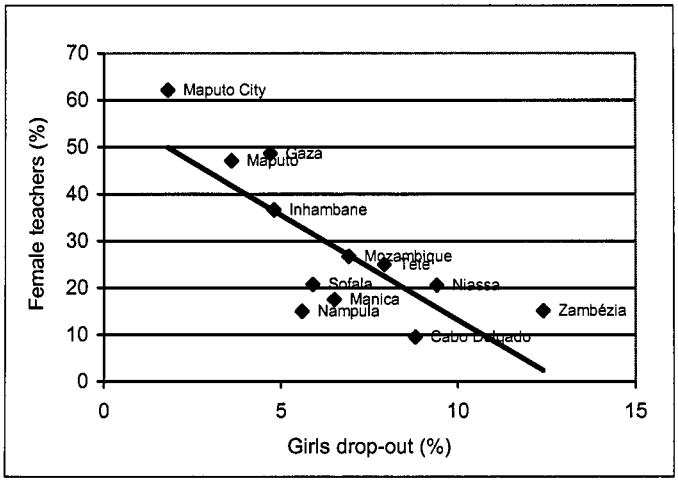
[40] A further reason explaining drop-out rates for girls is teenage pregnancy and premature marriage, sometimes as early as age 12.

uniforms). The importance of direct costs is also suggested by the finding that at the vocational education level, dropouts usually obtain jobs and frequently return to school later (Austral Consultoria Lda, 2002).

65. *On the supply side, the high average distance from the nearest school and the large number of incomplete schools appear to be important.* The extent to which high drop-out rates are also due to supply side factors is not fully clear. As mentioned, the results of the QIBB indicate that 11 percent of drop-out students give the reason that the school is too distant (*Instituto National de Estatística, op.cit.*). Information from the 1996/97 household survey indicates that the average distance to school is 4.5 km and that the average time needed to reach an EP1 school often exceeds one hour. The large number of incomplete schools is also likely to play a significant role in the high level of drop-outs. As many as 23 percent of primary school pupils in 1998 attended schools which did not offer the complete cycle of classes, and so it can be expected that many students only attend school for the available classes (Mingat *et al.*, 2002). In addition, other factors are also likely to play an important role. The 'quality' of the teaching (language of instruction, curriculum content, dedication or behavior of teachers) may not be perceived as relevant enough to the needs of the locality. The school calendar may not match that of agricultural activities in the community. In brief, the available information is not sufficient to determine which factors account for low retention rates in the various cycles of study. A more rigorous analysis of the impact of the various demand and supply factors is needed.

66. *One reason for the higher drop-out and lower completion rates of girls might be the failure to hire enough female teachers.* Just 27 percent of primary school teachers are women, ranging from only 9 percent in Cabo Delgado to 62 percent in Maputo City. Recruitment of female teachers has been shown to increase completion rates of girls, with an elasticity of completion of girls with respect to the proportion of female teachers of about 0.4 for low income countries (Kengue and Mingat, 2002). In the context of Mozambique, this implies that increasing the proportion of female primary teachers from the current 27 percent to the African average of 32.4 percent (in 1990), might increase the retention rate of girls from 32 percent to about 35 percent. Increasing the hiring of female primary teachers from the current 27 percent to 50 percent might increase the retention rate of girls to about 41 percent. The available observations by province support the possible negative correlation between the percentage of female teachers and the drop-out rate of girls (Figure 1), although this correlation is also likely to be a result of different levels of income.

Figure 1. Percentage of female teachers and girls drop-out, by province 2001



Source: Education Statistics 2001, Ministry of Education.

Efficiency of resource use:

67. *The education system is exceedingly inefficient and wastes a large amount of resources which could be used to expand the number of graduates.* Due to the high drop-out and repetition rates, it takes an average 18 years of resource inputs to produce one primary school graduate in Mozambique instead of the prescribed 7 (Table 13). This compares with Zambia's 10 years of resource inputs. Current survival rates imply that producing a primary school graduate costs US$613 instead of the planned US$232[41]. To reduce this problem, the government is considering some form of semi-automatic promotion within cycles of learning in primary schools, which would also help reduce the current practice of repeatedly failing students to encourage better performance.

Table 13. Efficiency indicators for education in 2001

Primary (EP1 and EP2, grade 1-7)	
Input/output ratio (school years)	18
Theoretical cost per completer (US$)	232
Actual cost to produce one Grade 7 student (US$)	613
Primary and secondary (EP1, EP2, ESG1 and ESG2, grade 1-12)	
Input/output ratio	231
Theoretical cost per completer (US$)	1234
Actual cost to produce one Grade 12 student (US$)	23728

Source: Education Sector Expenditure Review 2002, Ministry of Finance and Ministry of Education.

[41] The cost of producing a primary graduate should be (US$24.6 per EP1 student times 5 years) + (US$54.6 per EP2 student times 2 years) = US$232

68. *The allocation of teachers across provinces and schools does not follow efficiency criteria and needs to be adjusted over time.* There is evidence that teacher deployment, both across provinces and across school within provinces, varies widely without reference to efficiency criteria, and that there is ample room for improvement in the allocation of teachers in primary and secondary education alike (Mingat *et al.*, *op.cit.*). This could be done over time taking advantage of the natural attrition and new recruitment of teachers. In addition, the allocation of teacher time between EP1 and EP2 also appears to be inefficient. Teacher per class ratio for EP1 in 2001 was 0.7, indicating that double or triple shifts are not uncommon (Table 14). On the other hand, the teacher per class ratio in EP2 was 1.3, suggesting that teachers at this level do not spend all their time teaching. This raises questions about the efficiency of teachers' use within primary education (particularly given the significantly higher salaries of EP2 teachers – see below). Using teachers more efficiently (i.e. ensuring that teacher time is utilized fully) could decrease both the teacher per class ratios and the pupil per teacher ratios (PTR), without increasing unit costs.

Quality of education:

69. *The curriculum and the system of student examination are out of date and ineffective.* The current curriculum is outdated and there is a lack of a national assessment system to monitor student learning. The Ministry of Education will introduce a new primary level curriculum beginning in 2004. The new curriculum is innovative in many respects. It provides a space forlocally developed and relevant content, introduces bilingual education in key subjects in the early grades, increases the number of hours of instruction, introduces new pedagogical methodologies to improve teaching practice and strengthens school-based student assessment. Concrete plans to establish a learning assessment system that would serve to measure student learning rather as a mechanism to assign places in higher levels are not yet forthcoming, however.

70. *The number of teachers increased for all education levels between 1997 and 2001, but less for primary education.* In spite of the recent gains, the number of teachers in primary education remains below requirements, especially in EP1. In line with teacher numbers, the pupil-teacher ratio (PTR) for EP1 was 67 in 2001, up from 62 in 1999, and well above the recommended maximum of 40-45 (Table 14)[42]. The relatively high and increasing PTR in EP1 suggests that the quality of lower primary education has declined in recent years. In addition, the large variation in PTR within each province (e.g. between 42 and 120 in Zambézia) may indicate wide variations in the quality of education, and suggests that there are inefficiencies in the allocation of teachers.

[42] Compare also the ESSP goals in Ministério da Educação, 1998, pp. 41-42.

Table 14. Selected quality indicators by education subsector, 1997-2001

	Percentage increase in teachers	Percentage untrained teachers		Pupils per teacher	Teacher per class	Pupils per class
	1997-2001	1997	2001	2001	2001	2001
EP1	31	30	39	67	0.7	48
EP2	67	21	35	40	1.3	51
ESG1	111	18	33	35	1.5	50
ESG2	84	8	24	25	1.8	46

Source: Education Sector Expenditure Review 2002, Ministry of Finance and Ministry of Education.

71. *The recent increase in the number of teachers has been accompanied by a decrease in the proportion of trained teachers.* On average, the current teacher supply covers less than 50 percent of the demand for teachers in the country. The increased demand for teachers has been met by hiring teachers without appropriate training or qualifications. The proportion of teachers without pedagogical training has increased from 30 percent in 1997 to 39 percent in 2001 in EP1 and from 21 percent to 35 percent in EP2 (Table 14). The provision of adequate in-service training, particularly for those teachers who lack pedagogical training, have weak knowledge of the subject, or do not have appropriate teaching qualifications, is therefore crucial to prevent a reduction in the quality of education. The need for in-service training will become even more important to ensure the proper implementation of the new curriculum.

72. *There is a need to increase the output of primary education teachers with at least minimal qualification.* Since the expansion in education is intended to accelerate, there is a need for innovative approaches to teachers' training. The current policy of adopting the IMAP certification (Grade 10 plus 2 years training) as the standard for EP1 teachers in unlikely to be attained (due to the small number of Grade 10 graduates). It is also not likely to be sustainable given the current teacher salary structure for IMAP graduates. The Government should therefore concentrate its efforts on restructuring and introducing innovative ways to expand the CFPP system (Grade 7 plus 3 years training), which already provides the bulk of the supply of new teachers. This would increase the annual supply of teachers with at least minimal pedagogical qualifications and with a more affordable salary cost and no significant reduction in quality.[43]

73. *Poor infrastructure and the lack of books and teaching materials are the major sources of dissatisfaction for those attending school.* The results of the QIBB suggest that more than half of the primary education students (57 percent) are not satisfied with the level of service they receive (*Instituto National de Estatística, op.cit.*). The extent of dissatisfaction varies widely across provinces, from 27 percent in Niassa to 90 percent in Inhambane. The major causes of complaint relate to poor infrastructure (64 percent), especially in rural areas, and lack of books and materials (53 percent), especially in urban areas. The extent of dissatisfaction in secondary school is smaller (41 percent) and again

[43] The available evidence from Mozambique, albeit limited, shows that the gains in EP1 students' performance when an EP2 (IMAP) teacher teaches them are not very significant.

it is mainly due to the lack of books and teaching materials (57 percent), and poor infrastructure (33 percent). These findings indicate that the challenge of expanding the education sector are not limited to ensuring an adequate supply of qualified teachers, but also include improving the quality of schooling infrastructure and the availability of books and materials.

Tertiary Education

74. This PER does not go into detail about the higher education system. The bulk of public expenditure on education in Mozambique is dedicated to primary and secondary education. However, there are significant disparities in access to tertiary education, and efficiency and quality remain poor. These issues are addressed in the Higher Education Policy, which is currently under implementation with substantive financial support from the World Bank.

75. *Access to higher education has expanded, but remains very limited.* Over the past decade the number of Higher Education Institutions (HEIs) has increased from three to ten, and this has resulted in a subsequent increase in total student enrollment from 3,750 in 1990 to over 12,000 in 2001.[44] This trend indicates that a high social demand for post-secondary education exists in the country. Despite the increase in enrollments over the last decade, the GER in tertiary education in Mozambique is still low at about 1 percent. However, this is comparable to the tertiary GER for the majority of countries with similar levels of GNP not only in Sub-Saharan Africa, but also in other parts of the world. In addition, there is a great disparity in access to higher education among those with different geographic, gender and economic backgrounds, which is exacerbated by inequities that prevail at lower levels of education. Only 40 percent of the students in HEIs are from the Northern and Central provinces, which represent 75 percent of the total population.[45] Similarly, the proportion of female students enrolled in public HEIs has remained constant at around 25 percent since 1993.

76. *The higher education system has become increasingly inefficient.* The internal efficiency of the higher education system can be estimated by looking at admissions as a proportion of enrollment. The admission to total enrollment ratio declined from nearly 20 percent in 1992 to 16 percent in 1999, indicating a decline in the efficiency of the system (students are taking more and more years to complete their studies). One of the key factors is the high level of student repetition. Similarly, the percentage of students who graduate within the prescribed time was between 7 percent and 10 percent for public HEIs in 1999. This situation suggests that there is a need to re-evaluate and perhaps restructure the current degree requirements to increase the proportion of students who

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[44] Although public HEIs still account for the bulk of student enrollment (76 percent), private HEIs are gaining ground and the Government has supported policies aimed at increasing private sector investment in higher education, whether by encouraging public-private partnerships or by providing a conducive environment for new private HEIs to flourish, especially in disadvantaged regions of the country though the provincial scholarship program.

[45] The high concentration of students from the far South and Maputo City can be explained by the geographical concentration of HEIs in the Southern region coupled and the limited availability of scholarships and boarding facilities for students from distant provinces.

complete all degree requirements in time. This is being done under the higher education project with a view to boosting graduation rates, increase the internal efficiency of the system and reduce unit costs.

77. *Courses are often outdated and of low quality.* Many courses and programs offered at public HEIs are outdated, of limited relevance and quality and do not respond to the demands of a fast growing economy, the specific needs in individual provinces, or emerging sectors. Furthermore, the style of learning is often rote learning, but problem solving and innovative skills are required by employers (The 100 Biggest Companies in Mozambique, KPMG, 2000).

C. EXPENDITURE TRENDS

78. *A significant share of the education budget is externally financed, but data are not readily available.* A breakdown of data on external financing is available only for the year 2000 and indicates that about US$41 million (26 percent) of the total education budget of US$153 million was externally financed (Table 15). Total recurrent expenditure was about US$119 million (15 percent from external sources), and the balance of US$34 million was capital expenditure (64 percent from external sources). However, these numbers do not include *receitas próprias,* which in 1997 amounted to a considerable 6 percent of recurrent cost for EP1 (results of 1997 household survey; mainly own fees collections by schools). The lack of accurate data on fees collections imposes a serious constraint on the analysis carried out in this chapter.

Table 15. Government and external education recurrent and capital expenditure in 2000 (US$ Million)

	Primary	Secondary	Tech. Education	Teach education	Literacy and other	Total	Percent
Recurrent expenditures							
Government	70.6	16.1	8.1	5.0	1.0	100.8	85
External assistance	8.7	3.5	2.8	2.4	1.1	18.4	15
Total recurrent	79.3	19.6	10.8	7.5	2.1	119.2	100
Percentage	66	16	9	6	2	100	
Capital expenditures							
Government	8.4	1.8	0.7	0.9	0.0	11.8	36
External assistance	18.0	0.6	1.9	1.5	0.3	22.2	64
Total capital	26.6	2.6	2.7	2.4	0.3	34.0	100
Percentage	77	8	8	7	1	100	
Total expenditures							
Government	78.9	18.1	8.7	5.9	1.0	112.6	74
External assistance	26.7	4.0	4.7	3.9	1.4	40.7	26
Total	106.0	22.2	13.5	9.8	2.4	153.2	100
Percentage	69	14	9	6	2	100	

Source: Conta Geral do Estado, Ministry of Finance, and Ministry of Education.

79. *Total education expenditure has increased substantially in recent years, rising from 3.9 to 5.8 percent of GDP between 1997 and 2001.* Education expenditure has increased by over 50 percent in real terms in the last five years, raising total per capita education expenditure from US$4.1 to US$6.3. This is the result of both higher donor funding and increased government-funded spending. It is important to highlight, however, that while Government-funded education spending increased from 1.9 to 3.1 percent of GDP between 1997 and 2001 (Table 16), it remains below the SSA regional average of about 4 percent of GDP and below the international benchmark of 3.5 as stipulated by the Education For All Fast Track Initiative (data for 1998-2000, Bruns, et al., 2003).

Table 16. Education sector expenditures, 1995-2001 (US$ Million)

	1995	1996	1997	1998	1999	2000	2001
Total Government recurrent expenditures	246.1	272.4	370.0	444.6	498.1	497.8	436.8
Ministry of Education	89.9	115.1	114.5	123.9	n.a.	153.2	195.1
Government-funded expenditure	30.1	43.0	56.1	73.8	97.6	112.6	98.5
Recurrent account	28.0	39.0	50.5	67.3	86.9	100.8	92.9
Capital account	2.1	4.0	5.6	6.5	10.8	11.8	5.6
Donor-funded expenditure	59.7	72.1	58.4	50.0	n.a.	40.7	96.6
Ministry of Higher Education	n.a.	n.a.	20.5	33.8	n.a.	n.a.	n.a.
Government-funded expenditure	7.3	9.7	10.7	13.8	18.2	19.0	15.0
Recurrent account	n.a.	n.a.	n.a.	n.a.	14.9	16.5	13.1
Capital account	n.a.	n.a.	n.a.	n.a.	3.4	2.6	1.9
Donor-funded expenditure	n.a.	n.a.	9.9	20.0	n.a.	n.a.	n.a.
Total domestically-funded expenditure on education	37.5	52.7	66.8	87.6	115.8	131.6	113.5
Total externally-funded expenditure on education	59.7	72.1	68.2	70.0	n.a.	40.7	96.6
Total expenditure on education (domestically-funded + externally-funded)	97.2	124.8	135.0	157.6	115.8	172.3	210.1
Recurrent domestically-funded spending on education in total Government recurrent spending (%)	14.4	16.4	15.4	17.6	20.4	23.6	24.3
Domestically-funded spending on education as % of GDP	1.6	1.9	1.9	2.2	2.8	3.5	3.1
Total Expenditure on education as % of GDP	4.1	4.4	3.9	4.0	n.a.	4.6	5.8
GDP (IMF 2002 data)	2392	2842	3438	3893	4090	3750	3610
Exchange rate (Meticais/US$)	8890	11294	11546	11850	12691	15689	20707

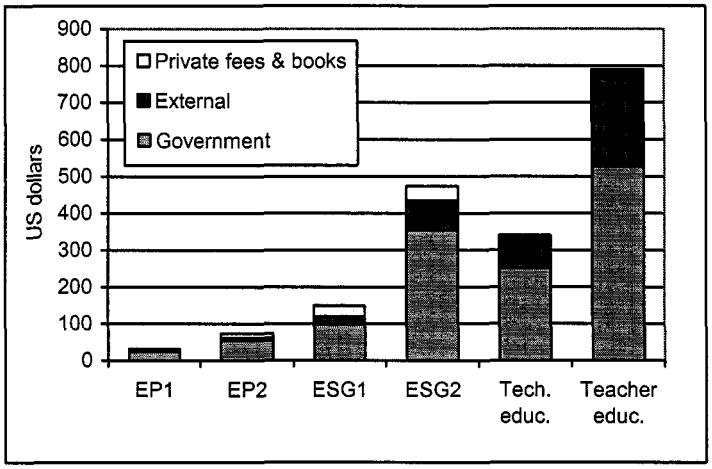
Source: Conta Geral do Estado, Ministry of Finance, and Ministry of Education, and Mingat *et al.* 2002

Recurrent expenditures:

80. *The allocation of government recurrent expenditures across education levels has remained fairly stable in recent years.* The share of recurrent resources going to primary education has remained constant between 1999 and 2001 at about 61 percent. However, within primary education, resources have been reallocated towards EP2, which has increased from 11 to 13 percent of total recurrent expenditures. The share of secondary education (ESG1 and ESG2) has increased from 13 to 16 percent. The recent increase in funding has not benefited teacher training, with the proportion of recurrent funding for training primary school teachers remaining constant at 3.3 percent.

81. *Recurrent unit costs are high compared to international standards, especially for upper primary and secondary education.* In terms of GDP per capita, Mozambique's education is more expensive than in neighboring countries. While spending on lower primary students (EP1) is somewhat below the SSA average of 13 percent (Colclough and Al-Samarrai, 2000), spending on upper primary school students (EP2) is much higher at 23 percent of GDP per capita. Similarly, spending per student on secondary education corresponds to 88 percent of GNP per capita, which compares to 27 percent in Malawi, 11 percent in Zambia and 32 percent in Zimbabwe.

Figure 2. Recurrent Unit Costs by Program in 2000

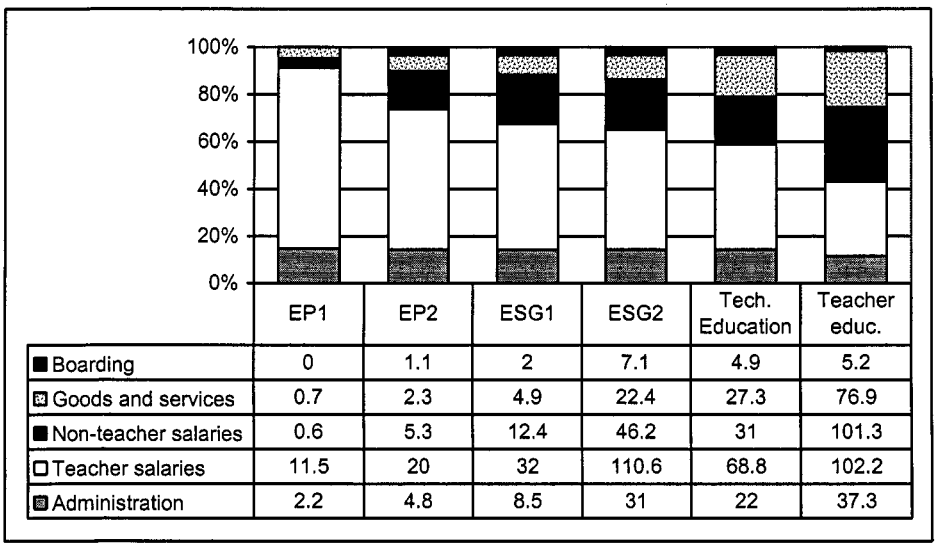


Source: Education Sector Expenditure Review 2002, Ministry of Finance and Ministry of Education.
Notes: 1. Private costs estimates based on 1997 household survey.
2. Administrative expenditures allocated proportionally across programs.

82. *The breakdown of government recurrent expenditures by education level highlights large cost differences in teacher salaries and in non-teacher salaries at different education levels.* Most of the differences in recurrent unit costs stem from considerable differences in the teacher salary costs per student. For instance, the four-fold increase in unit expenditures from EP1 to ESG1 is associated with an increase in the teacher salary costs per student from US$32 to US$111 per student. The proportion of non-teacher salaries also appears to be much larger in EP2 (16 percent) as compared to EP1 (5 percent). Expenditure on non-teacher salaries is even higher in secondary

education (20 percent) and teacher education (32 percent). It is questionable whether such a mark up in spending on non-teaching staff is necessary.

Figure 3. Government unit recurrent expenditure by input in 2001 (in 1999 US$)



	EP1	EP2	ESG1	ESG2	Tech. Education	Teacher educ.
Boarding	0	1.1	2	7.1	4.9	5.2
Goods and services	0.7	2.3	4.9	22.4	27.3	76.9
Non-teacher salaries	0.6	5.3	12.4	46.2	31	101.3
Teacher salaries	11.5	20	32	110.6	68.8	102.2
Administration	2.2	4.8	8.5	31	22	37.3

Source: Education Sector Expenditure Review 2002, Ministry of Finance and Ministry of Education.

83. *The pay differential between teachers at different education levels is excessive, with upper primary and secondary school salaries well above regional averages*. Salaries of EP1 teachers are about 4.4 times GDP per capita, above the average 3.6 times of GDP per capita in SSA (Table 17). The differential between EP1 and EP2 is 109 percent, between EP1 and ESG1 is 426 percent and the differential between EP1 and ESG2 is as much as 562 percent. This compares with a pay differential between primary and secondary school teachers not exceeding 100 percent in most SSA countries. [46] Secondary school salaries, which are double the regional average in per capita terms (Figure 4), are unsustainably high and are an impediment to the expansion of secondary education.

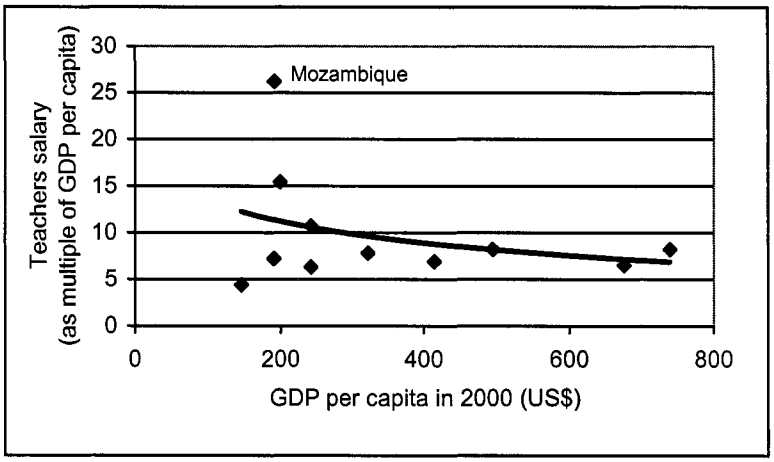
[46] It is of interest that evidence from many African countries suggests that setting primary education teachers' salaries at around 3.5 times per capita GDP provides a good balance between recruiting and maintaining teachers with adequate credentials and morale while allowing the universal coverage of basic education without overburdening public finances (Mingat, 2002).

Table 17. Yearly teacher salary and teacher salary/GDP per capita in 2001 (US$)

	2001
EP1 (min. salary)	870
Teacher salary/ GDP per capita	*4.4*
EP2 (min. salary)	1820
Teacher salary/ GDP per capita	*9.2*
ESG1 (min. salary + 30% bonus)	4574
Teacher salary/ GDP per capita	*23.2*
ESG2 (min. salary + 40% bonus)	5757
Teacher salary/ GDP per capita	*29.2*

Source: Education Sector Expenditure Review 2002, Min. of Finance and Min. of Education.

Figure 4. Secondary teacher salaries in selected SSA countries[47]



84. *Large differences exist between the number of teachers in the government payroll and those reported by schools.* The number of teachers recorded on the payroll is as much as 20 percent higher than those reported by schools in the year 2000 and 14 percent in 2001. This discrepancy suggests the need for an in-depth study and may indicate the opportunity to make easy and significant cost savings.

Capital expenditures:

85. *The allocation of capital expenditures is concentrated on primary education, and school construction in particular.* Capital expenditure is heavily concentrated on primary education (80 percent in 2000), with most of the funding originating from external financing (about three-quarters in 2000). Capital spending on secondary education is about 6 percent, technical education about 8 percent and teacher education about 7

[47] Benin, Burkina Faso, Cameroon, Côte-d'Ivoire, Madagascar, Mauritania, Mozambique, Niger, Rwanda, Tanzania, Togo

percent. External capital funding is very heavily skewed towards primary education. Government capital expenditures also focus on primary education, but to a lesser extent than in the case of external financing.[48] Over the last three years government capital expenditure has been reallocated from primary and secondary to technical education. In terms of activities, the breakdown of government capital expenditures indicates that the majority (62 percent in 2000) was spent on construction and rehabilitation of schools. The other major category in the capital budget is equipment.

86. *The cost of school construction varies by as much as four hundred percent, without apparent reason.* The cost of building a classroom using permanent materials (cement and bricks)[49] varies from US$5,000 to US$20,000, partly as a result of different models of donor assistance and partly because of limited competition in school construction contracts. It has been shown that excellent facilities can be built for a cost of about US$10,000 per classroom (including furniture, water and sanitation and auxiliary facilities). This amount should be viewed as a ceiling for construction costs, and should be implemented jointly with a revised set of construction standards.

87. *There is a need to accelerate the school construction program and to optimize the location of future schools.* Well targeted construction of new schools will be critical to sustain the expansion of enrollment rates (Handa and Simler, 2000). As many as 3800 new classrooms per year will have to be built over the next 15 years in order to sustain the expansion in primary education (EP1 and EP2). This expansion rate is far beyond the current capacity of the central Government of less than 2000 classrooms per year. A possible approach, used in virtually all neighboring countries, would be to encourage active participation by the communities, and allow the location, construction and maintenance of new facilities to be decided at the local level (regional or district authority), on the basis of the funds allocated by the Ministry of Education.[50] Villages might be required to pick up part of the cost, through the use of labor for construction and maintenance.

Fiscal framework and financing of higher education

88. *The share of public spending on higher education should be reduced further by reducing unit costs per graduate student and increasing the extent of cost recovery for those who can afford it.* Allocation of public expenditure to tertiary education has been decreasing from about 20 percent in 1995 to current levels of about 14 percent (Table 16). Therefore, although less than 1 percent of the total population is enrolled in tertiary education, higher education is consuming almost one sixth of overall public spending for education in Mozambique. Barring a few exceptions, tuition fees in public institutions are very low (below US$100 per year) while students in private institutions contribute, at

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[48] However, in terms of expenditure *per student* (i.e. Government unit capital expenditure) the allocation of Government expenditure remains heavily skewed towards technical education and teacher training, which are as much as 30 and 169 times the unit expenditures for primary school students.

[49] Local materials are generally cheaper than using 'permanent' material (cement and bricks), but they are of lower quality and durability, and require more maintenance.

[50] The Government should set centrally the quality standards for the construction of new schooling facilities and provide technical assistance, however.

a minimum, ten times more. Given the inequitable distribution of higher education expenditures, and the high returns facing individuals who invest into a higher education degree (in terms of higher salaries), the Government should increase the level of fees to cover most of the recurrent costs of tertiary education. Existing constraints in credit markets in Mozambique, however, imply that poor students may be unable to borrow the resources required to finance their studies. To overcome these constraints the Government should expand current provisions for student loans, in parallel with making bursaries available for deserving students. The public higher education institutions already operate several student scholarship schemes (partly supported by IDA) that provide financial assistance to needy students, and these schemes should be expanded to ensure that deserving students can attend tertiary education.

Planned expenditures:

89. *Achieving universal primary education by 2015 will require significant additional expenditures, reductions in costs and improvements in efficiency.* The Government's objectives of achieving universal primary schooling, and of improving the efficiency and quality of the education system will require significant resources in terms of additional teachers and schools. For instance, the number of EP1 teachers and EP1 classrooms would have to almost double, and the number of EP2 teachers and EP2 classrooms would have to increase almost four-fold. Preliminary calculations based on conservative assumptions[51] indicate that the amount of resources required would amount to an additional 2 percent of GDP annually, raising the domestically funded contribution to education expenditure from 3 percent of GDP (see Table 16) to 5 percent. Such an expansion would require that the share of education in Government expenditure increase from the current 21 percent to about 35 percent of the Government budget, at the expense of other sectors; obviously this is not a realistic scenario. According to the projections made under the *Education for All Fast Track Initiative* (EFA FTI), even when assuming significant efficiency improvements and an increase in external assistance, the financing gap would remain extremely large.[52] It is clear, therefore, that sharp improvements in the efficiency of the education sector will be imperative to ensure a significant reductions in unit costs, but not sufficient to achieve the Government goals (and the education MDGs).

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[51] Average real GDP growth rate of 6 percent p.a.; education sector will continue to receive about 21 percent of the budget (or about 3 percent of GDP); about 60 percent of the education budget will continue to be spent on primary education; constant teacher salaries in real terms; planned improvements in GER, completion rates and PTR.

[52] Mozambique is one of the 18 countries eligible to participate within the framework of the *Education for All Fast Track Initiative* (EFA FTI), which was adopted by the international community in 2002 to help countries mobilize the resources necessary for an acceleration of progress towards the *EFA* and the education *Millennium Development Goals*. The Government is currently finalizing its proposal to the FTI financing agencies and expects to begin its implementation in 2004. The Government's FTI proposal includes the introduction of a new curriculum for basic education in 2004, the development of a teacher education strategy, the emphasis on gender equity, community support for education and the prevention and mitigation of HIV/AIDS. A central feature of the proposal are strategies designed to progressively reduce student repetition and drop-out to a minimum, ensure regular student progress in learning and achieve universal completion, while ensuring fiscal and institutional sustainability.

90. *The merger of EP1 and EP2 cycles into a single primary education cycle would allow a substantial rationalization of available resources.* At present there are several differences between the EP1 and EP2 cycles. At the EP1 level, teachers normally have at least Grade 7 plus 3 years of training (CPFF) and they are multi-discipline teachers (one per class) with an average salary of 4.4 times of per capita GDP. Teachers with 7 years of education or less and no training receive an average salary of 2.8 times per capita GDP. About half of the EP1 teaching force is in the unqualified category, an issue that merits immediate attention and remedy. Currently the Government policy is to upgrade the entry qualifications for primary school teachers from 7 to 10 years of education and offer a 2-year instead of a 3-year program. The new polisy is being implemented at the IMAP centers, which have been receiving the bulk of expenditure in the last 5 years. There are two issues of concern with the current policy. First, the Ministry statistics show that despite a growing supply of IMAP graduates, few graduates enter the teaching profession and when they do, they tend to chose positions in post EP1 levels. This has negative implications for the supply of new teachers in EP1 schools, particularly since little new investments are being made in CFPP centers. Second, the IMAP graduates have teach only 2 or 3 subjects (there are several teachers per class) and have an average salary of 9.2 times per capita GDP, which is more than doubled of the average of 4.4 for CFPP graduates. While there is no comparative information in Mozambique on the relative effects of different types of qualifications (CFPP and IMAP) on student learning, evidence from other countries indicates marginal gains when primary school teachers go beyond 11 years of education. While it is clear that the current policy to ensure primary school teachers have IMAP level qualifications is costing the Government twice as much, it is less clear what the additional effect is on student learning It would be more more efficient and fiscally affordable to switch to a single primary school system with multi-subject teachers throughout the 7-year cycle.

D. POVERTY FOCUS AND INCIDENCE OF EXPENDITURES

91. *The regional distribution of public expenditures in education perpetuates the regional differences in literacy rates.* The distribution of education resources (monetary benefits) across regions is heavily skewed, with Maputo City with only 6 percent of the population receiving almost a third of the total benefits (Heltberg *et al.*, 2001). This result is caused in large part by higher enrollment in secondary education in Maputo City, compared to anywhere else in the country. However, while the rest of the Southern region (i.e. excluding Maputo City) also receives a share of benefits slightly higher than its proportion of population, the Northern region and especially the Central region are significantly under-served in terms of per capita benefits.

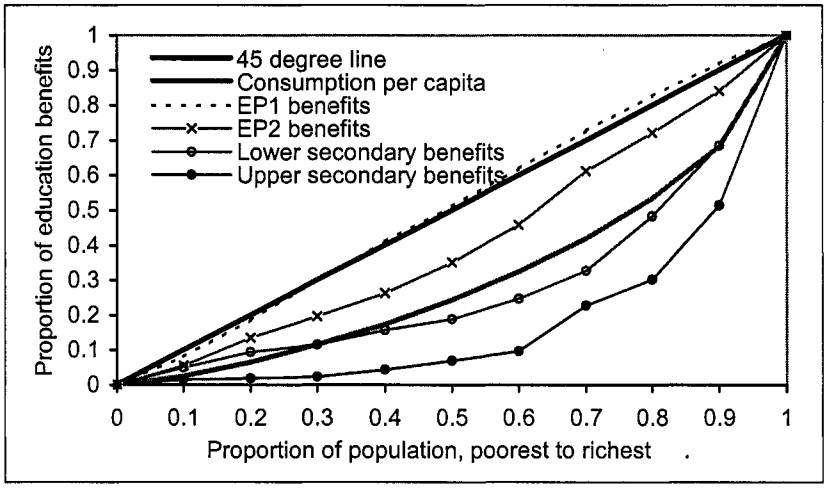
Table 18. Regional distribution of population and benefits from education spending (in thousand Mt.)

Share (%)	North	Center	South (excluding Maputo)	Maputo city
Population (% households)	32.5	42.6	18.8	6.1
Education benefits (%)	18.8	26.2	22.7	32.2

Source: Heltberg, Simler and Tarp, 2001, based on 1996/97 household survey.

92. *Education spending is equitably distributed at lower levels of education, but is very inequitable at higher levels.* The distribution of EP1 benefits almost overlaps with the 45-degree line, indicating that the distribution of spending on EP1 is very equitable (Heltberg *et al.*, *op.cit.*). The benefits from EP2 spending are less evenly distributed, with the poorest half of the population receiving about 35 percent of the benefits. At higher levels of education, the distribution of spending gets progressively less equitable, with the poorest 50 percent only receiving about 5 percent of the benefits at ESG2 level (Figure 5).

Figure 5. Distribution of benefits from public spending in education by income decile



Source: Heltberg *et al.* (2001), Figure 6.

93. *Students and parents pay a significant proportion of the recurrent costs at all levels of education, including primary school.* As much as 18 percent of EP1 and 23 percent of EP2 recurrent unit costs are covered by parents (school fees and books; data from 1996/97 household survey). In the case of EP1, this corresponds to 12 percent of household consumption expenditures of the lowest-earning decile per child, and 10 percent of household consumption expenditures of the second-lowest earning decile. For EP2, this cost becomes prohibitively high, corresponding to 34 percent and 29 percent of household consumption expenditures per child for the lowest and second-lowest income deciles, respectively. This suggests that the high level of costs borne directly by the household acts as a serious disincentive towards sending children from poorest

households to primary school. In addition, the level of fees varies widely from one village to another, but there is only a very weak correlation between income levels of municipalities and school payments. This implies that school fees and other school expenditures are often a deterrent to sending children to school in poorer provinces.

E. IMPACT OF HIV/AIDS ON THE EDUCATION SYSTEM

94. *One of the major constraints to the achievement of universal enrolment and completion is the impact of the HIV/AIDS pandemic on the education sector.* Further investments in the sector will need to consider the impact of HIV/AIDS on the teaching force and on the student populations by accounting for teacher absenteeism and attrition, the need for further teacher training to offset these losses, as well as the cost of enrolling orphans.

95. *Costs of absenteeism due to HIV/AIDS are incurred when HIV-related illness in infected teachers keeps them from their teaching duties.* Combining the information on the typical impact of the illness with the salary levels, it is possible to estimate these costs at US$1 million in 2002, increasing to US$1.5 million in 2006. It is estimated that total teacher attrition will be about 7,450 between 2002 and 2006. Of these, about 2,700 teachers will be lost to HIV/AIDS. [53] The unit cost of teacher training implies that the additional costs of teacher attrition due to HIV/AIDS can be estimated at about US$2.3 million in 2002, rising to US$2.7 million in 2006.

96. *It is also estimated that HIV/AIDS will have a direct impact on the number of orphans.* The number of orphans is expected to increase from the current 10 percent in EP1 and 11 percent in EP2, to 18 percent and 25 percent in 2010, respectively. The cost to enrol and maintain this number of students under bursary or other programs to reach orphans and vulnerable children (estimated by the Government at US$8 per student year)[54], is calculated at US$2.6 million in 2002, rising to US$3.6 million in 2004 and US$4.6 million in 2006.

97. *The total cost of HIV/AIDS on the education sector is estimated at US$7m in 2006, equivalent to a 5 percent increase in total education spending.* Incorporating the cost of teacher absenteeism, attrition and training, as well as the cost of enrolling orphans and vulnerable children, the total cost amounts to US$4 million in 2002, increasing to US$7 million in 2006. Given the magnitude of these costs, a comprehensive education sector response to mitigate the impact of HIV/AIDS among school children, youth, teachers and administrative staff will need to be operationalized as a matter of priority. The Ministry of Education has started this process by launching the 'Strategic Plan for HIV/AIDS' that sets out a timetable to develop and implement policies to (i) provide

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[53] For simplicity it is assumed that the AIDS prevalence among teachers is the same as for the rest of the population.

[54] This estimate is likely to be far too low, however, since it only just covers the average level of school fees. In practice orphans will have to benefit from bursaries to support living expenses as well to be able to attend school.

support and care for education sector staff, (ii) provide substitutes for teachers who are absent through illness, (iii) ensure that orphans and vulnerable children have access to education, and (iv) address HIV/AIDS prevention in the new curriculum together with extra curricular activities to support prevention in all EP1 and EP2 schools.

F. POLICY PRIORITIES FOR THE EDUCATION SECTOR

98. This chapter has highlighted several weaknesses in the performance of the education sector and has identified eight critical areas for policy improvement.

99. *Investigate the causes of the low completion rates.* The evidence available on the general causes of the low completion rates in Mozambique is scant and there is a need for a further in-depth study. In the meantime, it is recommended that the authorities move ahead vigorously with the implementation of the new curriculum which plans to intoroduce three learning cycles withautomatic promotion within cycles. The implementation of the curriculum will begin to address internal efficiency issues evident in the high repetition and drop-out rates. Available international evidence suggests that the girl drop-out rates are negatively correlated with the proportion of female teachers. Therefore, given the extent of the existing gender gap in primary education, the hiring of female teachers should be pursued and is likely to lead to improvements in girls' retention and completion rates.

100. *Merge the EP1 and EP2 cycles into a single primary education cycle.* The current distinction between EP1 and EP2 embodies various inefficiencies and can be eliminated without compromising the quality of education. This reform would allow a substantial rationalization of available resources across EP1 and EP2 (notably teachers and classrooms), it would homogenize teachers' salaries and their qualifications across primary education, it would accelerate the school construction program, by eliminating the need to have separate schools for lower and upper primary school cycles, and it would ultimately facilitate the expansion to universal primary education.

101. *Improve cost efficiency in school construction and adopt a community based approach to school construction.* The Government should ensure that the construction cost per primary school classroom does not normally exceed $10,000 (inclusive of furniture, water and sanitation, and auxiliary facilities), and should revise the construction standards which have to be satisfied by contractors and communities. This would reduce the scope for rent seeking from school construction contracts and reduce the time it takes to complete works. In addition, the government should expand the capacity to build new schools by decentralizing the school construction program to the regional or district level and involves the community in the construction, rehabilitation and maintenance of schools, particularly in the primary level and in rural and isolated areas. This would also ensure that the location of new schools occurs where is most needed (demand driven), and that the scarce available funds are used efficiently.

102. *Improve the equity of education spending.* The high level of private costs borne by the household reduces the school enrollment of the poorest children and is a contributing factor for high drop-out rates and poor completion rates. The official or unofficial use of school fees in primary education needs to be studied in order to ensure it is reduced and

restructured in such a way that it does not hinder the access of the poor to education. This could be done through a combination of increased allocations to schools and improvement of the exemption arrangements for students from needy households. At the same time, the distribution of benefits from public spending in secondary education is highly inequitable, and the share of the education budget going to secondary education should be reduced further, in favor of primary education. The level of cost recovery in secondary education should be maintained, in parallel with making bursaries available to deserving students.

103. *Reverse the decline in the quality of education by introducing the new curriculum and expanding the CFPP teachers training.* Extending access to education should not be at the expense of education quality, and several measures can respond to weaknesses identified in this report. The planned introduction of a new curriculum will help to address some issues related to quality and efficiency. The magnitude of the effect, however, will depend on parallel programs to upgrade teacher subject knowledge, improve teaching practice, ensure an adequate supply of teaching guides and textbooks to support the new curriculum and upgrade school infrastructure. The trend towards hiring teachers without appropriate training qualifications should be reversed, and a priority placed on improving the supply and quality of pre- and in-service teacher education programs. In this context, it is recommended that the Government improves the quality of teacher education programs offered at CFPP centers to ensure that all new primary teachers have CFPP qualifications. Teacher education programs (length and curriculum) should be restructured significantly to increase the supply of qualified teachers. The CFPP system should be reformed to adopt alternative training modalities aimed at reducing resident time and increasing practical training. This would allow an increase in the annual supply of teachers with at least minimal pedagogical qualifications and a more affordable salary cost. The recommendation above to improve efficiencies in teacher allocation will also help improve quality by reducing PTRs.

104. *Reallocations within the education budget could improve efficiency while remaining within an envelope consistent with the PARPA.* Savings can be made by (i) identifying and removing all any "ghost teachers" from the payroll, as teachers on the EP1 payroll outnumber those recorded by the schools by 20 percent; (ii) rationalizing the deployment of teachers across provinces and schools, improving the use of teachers' time in EP2, and reallocating teachers from EP2 towards EP1; (iii) reducing construction costs; and (iv) reducing the subsidy on tertiary education. These savings would likely be sufficient to compensate for the proposed scholarships for AIDS orphans and the proposed reduction in primary school fees.

105. *Develop a comprehensive education sector action plan on HIV/AIDS.* The HIV/AIDS epidemic will have wide implications for the education sector, mainly as a result of the large number of orphaned children. The Government needs to operationalize its 'Strategic Plan for HIV/AIDS' into a comprehensive education sector response to mitigate the impact of HIV/AIDS crisis.

106. *Improve data collection on education spending.* Although the availability of data on indicators of access, performance and quality of the education sector is very good, the reporting on external financing, other donor funding made available directly to the education sector (off-budget aid from donors), and particularly on the collection of local

fees (*receitas próprias*), is weak. This lack of comprehensive expenditure data imposes serious limitations on the analysis of education expenditures and needs to be resolved.

CHAPTER 4. HEALTH

A. INTRODUCTION

107. Despite progress in medical coverage in recent years, Mozambique's key health indicators show a mixed picture against the findings of the last PER in 1992. Infant mortality and under-5 mortality – usually emblematic of the state of health in general – have improved slightly or stagnated, depending on the source. In 1989, the infant mortality rate was some 137-150[55] per 1000 live births, falling to 129 by 2001 (at best a 14 percent improvement in 12 years). The under-5 mortality rate was 203-219[56] in 1989 and 200 in 2001 (at most a 9.5 percent improvement in 12 years). Some indicators have improved markedly, e.g. the intra-hospital maternal mortality rate fell from 230 per 100,000 live births in 1993 to 160 in 2002. Yet others deteriorated: in 1989 life expectancy at birth was 43-49 years[57]; in 2001 it was 42 years, some of the reduction being due to HIV/AIDS. Mozambique's indicators also continue to lag behind those of its neighbors. Malaria is the leading cause of death. HIV/AIDS prevalence was 13.8 percent in 2002 and has become one of the main causes of death for the working age group. These poor indicators cannot be attributed entirely to low health spending levels because these have been above 2.5 percent of GDP in most years since 1992. Neighboring countries with similar levels of spending exhibit better health indicators (Table 19 on page 65). This chapter of the PER will, among other things, investigate the various factors that influence the outcome indicators and check to what extent there is a link between health spending and outcomes. It has been observed in other countries that there is only a tenuous link between health spending and health status (Filmer *et al.*, 2000).

108. This chapter first describes the background to Mozambique's "lost decade" in health outcomes. It proceeds to examine the allocation and effectiveness of public expenditure in health. It concludes by proposing further reprioritization and a series of reallocations in accordance with the efficiency and equity goals of the Government's health strategy.

B. KEY HEALTH SECTOR ISSUES

109. *Health care is overwhelmingly provided by the public sector*, organized under the title National Health System (NHS). It has 1,224 facilities and 16,098 beds and a staff of 17,890 workers (Human Resource Directorate Annual Report). Of the medical staff, 60

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[55] 137 from World Bank (1992); 150 from WDI. See similar numbers in INE-DHS (1998).

[56] 203 from World Bank (1992); 219 from DHS-INE (1997).

[57] Life expectancy: 49 in World Bank (1992); 43 in WDI for 1990.

percent are trained. In the past decade, private care provision has expanded, mainly in the major cities; the services are priced for middle-class customers. As of 1997, the Ministry of Health accounted for 70 percent of health spending, NGOs for 23 percent and for-profit private operators 7 percent. Non-profit care is provided increasingly by NGOs, some with donor backing, but their contributions are significant only in Maputo City and Nampula, where 31 were identified in a survey in 2001.[58]

110. There are two further sets of providers: the network of community facilities and the traditional healers. The former is managed by community financed village health workers, who receive technical support and drugs from the National Health System. The volunteer workers (*socorristas*) are not paid. Due to very limited training and access to only a restricted set of drugs, they are not very effective health care providers. The communities apparently know this, and frequently bypass the community facilities. To convey an idea of their relative importance, some 3 percent of clients at rural NHS clinics had previously visited a community health post, and fully 76 percent had visited a traditional healer. On the other hand, a beneficiary assessment (Swiss Agency for Development Cooperation, 2000) found that only 3 percent of households surveyed went to traditional healers, though in Nampula province the figure rose to 6 percent. Due to the lack of information about these two sets of providers, this PER does not focus on them other than to reinforce the plea of the *Health Expenditure Review* (Yates and Zorzi, 2000, p. 4) that their role be assessed formally and that ways of expanding their role in the health care process be investigated.

111. *The health status of Mozambicans is extremely poor*, due to poverty, lack of clean water, poor hygiene standards, malnutrition, an environment which fosters harmful pathogens and parasites, the after-effects of war, environmental disasters[59] and inadequate health services. As in many sub-Saharan African countries, the disease burden arises mainly from infectious and parasitic diseases, particularly malaria, pneumonia, measles, tetanus, tuberculosis, gastrointestinal illnesses and HIV/AIDS. Malaria is still the dominant cause of morbidity: according to a survey of well-being, the QIBB (Questionário de Indicadores Básicos de Bem-Estar), 18 percent of the population had been ill in the fortnight preceding the survey, of whom 46 percent had malaria and 13 percent diarrhea (Instituto Nacional de Estatística, 2001). Table 19 shows that Mozambique's infant and under-5 mortality rates, and maternal mortality rates, exceed those of Malawi, Tanzania and Zambia and the sub-Saharan African averages.

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[58] On the role of NGOs, see also Pfeiffer (2003) and Agência Suíça para o Desenvolvimento e a Cooperação (2001).

[59] 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.

Table 19. Health expenditures and performance: a regional comparison

	Mozam-bique	Malawi	Tanzania	Zambia	Sub-Saharan Africa
Public health expenditure as a % of GDP	3.4	2.8	1.3	3.6	2.4
Malnutrition (wt. for age, % under 5 years)	26	25	29	24	n.a.
Population per physician	43,583	45,737	n.a.	10,917	21,970
Life expectancy at birth (years)	42	39	44	38	47
Infant mortality rate per 1000 live births	129	103	93	115	91
Mortality rate under 5 per 1000 live births	200	193	149	187	162
Maternal mortality rate (/100,000 live births)	1,083 (PESS)	620 (PESS)	-	649 (PESS)	-

Sources: World Bank, *World Development Indicators*, unless otherwise indicated. "PESS" is the *Plano Estratégico do Sector da Saúde* (Health Sector Strategic Plan) 2001-2005-2010 (see República de Moçambique, Council of Ministers, 2001). Most of the indicators refer to the year 2000, this being the latest year for which data are available.

As remarked above, infant mortality has fallen only a little in the past decade. There are also large geographical variations in infant mortality rates, from 60 per 1000 in Maputo City to 180 in Zambézia. Much of this is associated with malnutrition. Almost one in every two children in rural areas is malnourished. Global studies indicate that malnutrition is implicated in around 50 percent of childhood illnesses. While food availability is a necessary condition to reduce malnutrition, there are more important causal factors: lack of knowledge about appropriate feeding practices, poor maternal health and nutrition, and lack of diet diversity. Primary health care can potentially make an important difference even without significant changes in incomes and food output. The fact that there has been but little improvement in the infant and the under-5 mortality rates prompts the question whether the primary health care services have had the needed impact in changing behavior in appropriate ways.

112. The causes of the key health outcomes, as remarked above, are multi-factorial. In Mozambique's case, the key factors have generally improved:

(i) *Food availability* has improved by some 31 percent on a country-wide basis in the past decade, and most of this is due to increased output of cereals by smallholders[60];

(ii) *Poverty* has declined in both urban and in rural areas, as emerges from comparisons of the household survey of 1996/7 with the CWIQ survey of 2001 (Simler and Harrower, 2003). The number of household owning a radio rose from 27 percent in 1996 to 49 percent in 2001, and the number owning a bicycle rose from 12 percent in 1996 to 27 percent in 2001.

(iii) *Access to clean water* has improved considerably in rural areas – from about 10 percent in 1992 to 35 percent in 2001 (see chapter 6 of this PER).

The impact on health of other factors such as natural disasters are harder to evaluate, and it may be that the floods of 2000 had a large negative impact on outcomes; but on the

[60] Agriculture value added grew 4.9 percent per annum 1990-2000, while population grew 2.2 percent p.a., making an increase of 31 percent in food availability.

other hand, Mozambique has suffered many natural disasters in the past, such as droughts. and it is not clear that the recent ones have been more damaging than those of a decade ago. The puzzle, then, is why, despite the improvements in several health-relevant factors, as well as the increased effort by the health services, the headline health outcomes improved so slowly. On this point this chapter of the PER is deliberately agnostic, owing to the complexity of the subject. In the remainder of this chapter, an attempt is made to evaluate some aspects of the health service to see whether there are inefficiencies that could be rectified so that the health service has a greater impact on outcomes in the future. Note that this chapter of the PER does not argue that the health services are to blame for the disappointing health outcomes. Rather the point is that the link between health outcomes and health services is tenuous, and that it consequently behooves the authorities to seek efficiency improvements so as to have a greater impact in the future.

113. *There has been a substantial increase in the coverage of primary health services.* The percent of children fully immunized by two years of age was 55 percent in 1995, rising to 82 percent in 2001. Immunization rates improved – with measles coverage rising from 39 percent in 1980-85 to 57 percent in 2000, and DPT coverage rising from 29 percent in 1980-85 to 61 percent in 2000[61]. Deliveries attended by a trained provider rose from 26 percent in 1993 to 45 percent in 2002. Consultations per inhabitant more than doubled, rising from 0.36 in 1993 to 0.77 in 1999. Taking all the efforts together (consultations, pre- and post-natal care, etc.), the overall output of the government health system rose by 59 percent between 1993 and 2000, particularly in the northern region, owing to large investments and redeployment of health staff. On a per inhabitant basis, "standard delivery units" (using a set of coefficients to weight the sum of the different types of care) [62] increased from 2.4 in 1993 to 3.3 in 1999, or a 37 percent increase.

114. *The common fund for drug procurement has proven a success.* A common fund, financed by 8 donors, was started in 1997 to rationalize pharmaceutical procurement. Expenditures run to $15-20 million annually, of which the Government shoulders a small ($3-4 million) but growing share. Using international tendering, the pool attains economies of scale. The central health authorities have administered it competently, with assistance from the Swiss Development Corporation, which has provided the added benefit of relatively good data sets on many aspects of health delivery. The bulk of the drugs are distributed via the "classical route" of requisitions by the hospitals, whence they are distributed to the clinics; about one-tenth are distributed in the form of drug "kits", as part of the Essential Drug Program, direct to clinics and health posts. A cost recovery system has been in place since the 1970s. Officially, an average of some 2.5 percent of the cost is recovered. However, the administration of the cost recovery setup, with its well-intentioned exemptions, is widely perceived as unfair and prejudicial to the poor (see below in paragraphs 119 and 120 on page 68). There will be a need in the

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[61] There may be an issue of definition. By Ministerial records, DPT coverage was 82 percent by 2001 (HSRP Indicators, 2002). By *World Development Indicators* records, DPT coverage was 61 percent.

[62] The formula is: SDU = 12*deliveries + 9* bed occupancy days + 0.5* immunizations + external consultations + mother & child consultations.

future to "indigenize" the management of the common fund and the data collection that accompanies it.

115. *But the increased coverage and health care effort has not, in general, had the anticipated impact.* Three distinct groups of linkages can be identified:

- In a few areas, there is a clear link between the care effort and the outcome. An example is the increased rate of clinic-attended births, which contributed to the sharply reduced maternal mortality rate.
- In a few other areas, one would not expect the increased care effort to have had much impact, e.g. the reduction in life expectancy stemming from HIV/AIDS (because of the prohibitively high cost of anti-retrovirals).
- Overall, as pointed out above, the link between the care *effort and expenditure* on the one hand, and health *outcomes* on the other, is tenuous. The improved vaccinations and immunizations, and the overall increased effort (consultations, pre- and post-natal care, etc.) did not do much for the infant and under-5 mortality rates. This may be partially due to the impact of HIV/AIDS on infant and under-5 mortality (many babies born with AIDS die early, and families afflicted with AIDS provide poorer care for children).

The following paragraphs suggest some clues about factors diminishing the quality of care and limiting access[63], and which may contribute to the explanation for the tenuous link between the increased health effort and the disappointing outcomes. These include: the **distance from health facilities**, low **staff qualifications** and general **lack of staff**, poor morale and **staff remuneration, lack of drugs**, and **inappropriate use of user fees.**

116. *There continue to be problems of access* due to distance, the cost of transport, and the lack of access roads. The SDC-funded beneficiary assessment was revealing on this point[64]. When asked about difficulties in using the health facilities, between 13 percent and 57 percent of respondents said the high cost was a problem, between 2 percent and 32 percent referred to bad treatment, between 14 percent and 80 percent referred to transport difficulties, and between 2 percent (Tete) and 30 percent (Maputo City) referred to "lack of medicines". 18 percent of Tete respondents, 15 percent of Inhambane respondents and 13 percent of Nampula respondents took more than three hours to reach the health facility (*ibid,* p. 72). Further progress with the road rehabilitation program could be one of the key health interventions of the future.

117. *Staff qualifications and numbers do not match the caseload.* As of 2002 there were 17,890 public health sector staff (Human Resource Directorate Annual Report), their number having increased by 4 percent since 1998. There are 43,584 inhabitants per

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[63] The beneficiary assessment by SDC (Swiss Agency for Development Cooperation, 2000) examined a large number of potential barriers and found, using a logit model (p. 88), that socio-economic status, educational status, distance from health facility, and province (possibly proxying for illegal user fees) were statistically significant in determining access.

[64] Swiss Agency for Development Cooperation, 2000, p. 68, Table 3.14. It should be noted that the survey has limited representativeness as it covered only four provinces.

doctor, similar to Malawi's 45,737 but greatly in excess of Zambia's 10,971 or sub-Saharan Africa's 21,970 (see Table 19 on page 65). Surveys indicate that consultation times were very short (average 4 minutes), that triage practice was poor, that health worker compliance with protocols was poor, and that diagnosis and treatment was were not always appropriate[65]. Although the SDC beneficiary assessment found (p. 12) that 87 percent of respondents were satisfied with the care that they received, staff shortages proved to be a great concern, e.g. over half of the users of health posts in Inhambane raised this as a serious concern (p. 11). When asked what improvements were needed, 36 percent overall referred to availability of staff (p. 69).

118. *Staff salaries, especially at the senior level, are low.* Particularly at the senior levels, salaries are low compared with border wage rates. A hospital doctor in Mozambique is paid $3,850, compared with $9,000 in Lesotho, Botswana and Zimbabwe (HSER, 2002, p. 73). A senior health manager is paid $3,800, compared with $10,500 over the border. With markets for physicians and registered nurses rapidly becoming integrated Africa-wide, this is an unsustainable situation. The low wage rates are neither conducive to attracting the top level skills, nor to improving staff productivity or the quality of care.

119. *Drug availability continues to be a problem.* There have been improvements in the adequacy and predictability of medical supplies due to the allocation of a significant share of a growing budget to pharmaceuticals. However, there is considerable evidence that drug availability did not improve at the rate planned. Christie and Ferrara's (1999) survey inquired why respondents who were ill did *not* seek health care at a facility. 38 percent responded that the facility was too far, 35 percent said they lacked the money, and 6 percent said the facility lacked the drugs. A beneficiary assessment (Swiss Agency for Development Cooperation, 2000) documented a poor state of drug availability in many health centers; approximately two-thirds of the surveyed health facility users identified the availability of medicines as the area needing the greatest improvement and attention. The *Rational Drug Study* by SDC (2001) found problems with availability of antibiotics, and noted that the availability of drugs was no better than in 1996 when comparable data had been collected. In the QIBB/CWIQ survey in 2001, respondents were asked whether they went for a medical consultation in the past fortnight. 11 percent did (INE 2001, p.36), but of these, 39 percent complained of the long wait, 35 percent of a lack of drugs, and 19 percent of the cost. In the Expenditure Tracking and Service Delivery Survey (see para. 136), 58 percent of the clinics surveyed had suffered a stockout of at least one essential drug in the previous six months, and only 66-76 percent had all essential drugs in stock at the time of asking.

120. *Irregular use of user charges is a disincentive to receiving adequate care.* There is a need for a transparent cost recovery system and rules of exemption. There is much anecdotal evidence of illegal drug selling. This is illustrated by a quote from the SDC beneficiary assessment (p. 76): "As one focus group participant in Maxixe District,

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[65] URC study of the management of quality (1998), Rational drug study by SDC (2001), Baseline survey for evaluation of IMCI (2001).

Inhambane stated it, "*If you pay 1000 Mts. there are no drugs, [but] if you have 40-50,000 Mts, drugs appear immediately*". Perturbing is that while users say they are forced to pay, health workers believe that they provide free care as needed (SDC beneficiary assessment p. 80): in 22 out of the 30 health facilities examined, where health workers indicated that patients get treatment even if they do not have money, it was found that at least 20 percent of users of those facilities indicated that they were refused treatment. There is a perception that there "are no free services". Fee information is not readily available, making way for negotiation over the price. Widely differing prices are charged. While child consultations are supposed to be free, rates of 500-1000 Meticais are often quoted, and sometimes rates significantly higher than these are quoted[66]. The ETSDS found in 2002 that, although consultations are supposed to be gratis, 35 percent of children were required to pay. More surprise inspections of facilities may be called for, as well as clear posting of price and exemption schedules at all facilities.

121. *It is unlikely that the Millennium Development Goals will be attained.* The MDG for maternal mortality is that it fall by ¾ by 2015, viz. from 1083 per 100,000 live births to 271. This is unlikely under existing circumstances: even if overall maternal mortality were to fall at the same rate as intra-hospital maternal mortality, this would bring it down to only 644 by 2015. Another MDG is that under-5 mortality fall by two-thirds, viz. from 200 in 2001 to 67 in 2015. Taking the "best" rate of reduction between 1989 and 2001 as a guide, projecting current trends delivers an under-5 mortality rate of 180 in 2015. Even this is optimistic due to the possible intensification of AIDS.

C. EXPENDITURE TRENDS

122. *Health expenditure has risen sharply.* As is shown in Table 20, total public expenditure on health, domestically and externally financed, grew by 21 percent annually in real terms between 1997 and 2000, rising from 2.3 percent of GDP in 1997 to 3.4 percent in 2000. Otherwise expressed, it was the equivalent of US$5.0 per capita per annum in 1997 to $7.5 in 2000, and is estimated at $10.7 in 2002.

123. *Health expenditure is largely externally financed.* This considerable increase in spending was financed by increases in the government budget allocation from about 7.7 percent of domestically financed expenditure in 1997 to 8.8 percent in 2000, as well as by increases in aid – grants, loans, and the health component of general budget support. The domestically and externally financed contributions grew at roughly the same rate, such that external funding remained between 69 percent and 70 percent throughout the period. Expenditures are projected to rise to $15.9 in 2005 and to $21.3 in 2010.

124. A study carried out by Ministério da Saúde e SDC (2001) managed to obtain information from 18 bilateral donor agencies, 5 development banks and 4 UN agencies supporting the health sector. Of these, the largest supporters were USAID, the World Bank, Switzerland, Norway, the Netherlands, Denmark, the European Union and the UK.

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[66] SDC beneficiary assessment (p. 13).

Disbursements by all donors in the health field totalled some US$ 80 million in 2000, of which three-quarters took the form of grants.

Table 20. Total *actual* health expenditure at current prices, 1997-2000

Item	1997	1998	1999	2000
Total public expenditure in the health sector				
Nominal (Mt bn)	929	1,141	1,476	1,974
Real (constant 2000 Mt bn)	1,117	1,312	1,649	1,974
in percent of GDP	2.3%	2.4%	2.8%	3.4%
Contribution from different sources of finance				
in billion Meticais				
State budget, viz. from tax revenues	258	316	401	571
Aid				
General budget support, thru' state budget	73	90	220	345
Grants and loans to health sector [a]	574	708	817	1007
Household contributions [b]	24	28	37	51
as percent of total expenditures in health				
State budget, viz. from tax revenues	28%	28%	27%	29%
Aid	69.7%	69.9%	70.3%	68.5%
General budget support, thru' state budget	7.9%	7.9%	14.9%	17.5%
Grants and loans to health sector	61.8%	62.0%	55.4%	51.0%
Household contributions	2.5%	2.4%	2.5%	2.6%
	100%	**100%**	**100%**	**100%**
Per capita total expenditure in the health sector				
In current Meticais	57,793	69,384	87,636	114,502
In US dollars	5.0	5.9	6.9	7.5
Share of domestic state budget allocated to health	7.7%	6.5%	7.7%	8.8%

Source: HSER 2002 Tables 4.1 and 4.2, unless otherwise stated.
[a] Source: Ministério da Saúde e SDC, 2001.
[b] Source: from estimates of recorded user fees and charges in Austral e Ministério do Plano e Finanças (1999). These are probably understated.

125. *The contribution of external funds to capital expenditures declined* from 82 percent in 1997 to 61 percent in 2000 (see Table 21). This reflects a shift in donor support from post-war reconstruction towards a greater emphasis on consolidating health infrastructure and improving the volume, coverage and quality of health services.

126. *Recurrent cost implications of capital spending are now high on the agenda.* The Ministry has produced a draft investment plan (2002) which proposes restrictions on new investments to the most under-served areas and to facility upgrades where there are clear efficiency gains to be achieved. The recurrent cost implications have been assessed and included in the *Cenário de Despesas e Financiamento do Sector Saúde de Médio Prazo 2001-2005* (Ministério da Saúde 2001a).

Table 21. Source of funding by economic classification, 1997 and 2000

Item	1997		2000	
	State budget	External funds [a]	State budget	External funds [a]
Total public health sector expenditure (current Mt bn)	331	486	917	864
Recurrent expenditure	301	353	793	668
Salaries and personnel-related costs	137	107	373	196
Pharmaceuticals	17	155	62	265
Other goods & services and recurrent costs	147	92	358	207
Capital expenditure	30	132	124	196
Contribution from main sources of finance (%)				
Recurrent expenditure	46%	54%	54%	46%
Salaries and personnel-related costs	56%	44%	66%	35%
Pharmaceuticals	10%	90%	19%	81%
Other goods & services and recurrent costs	62%	39%	63%	37%
Capital expenditure	18%	82%	39%	61%

Source: HSER (2002) Table 4.3, in turn from CGE (1998-2000), Ministry of Health and Management Sciences for Health (1999) and Ministério da Saúde e SDC (2001).
[a] Excluding health's share of general budget support implicit in the State budget.

127. *The fastest growing recurrent spending category, "other goods and services", is being diverted into staff benefits.* Between 1997 and 2000 this category grew by 97 percent in real terms (see Table 22). Anecdotal evidence suggests that much of this constitutes transfers in the form of vehicles, training courses, seminars, workshops, inland or abroad, and other rewards. As noted in the chapter on cross-cutting issues, higher and middle level health sector workers are paid well below their market value. Under these circumstances dual employment arrangements, illicit fee charging and a failure to exempt indigent patients from charges are inevitable. The extent of the resultant inefficiencies may be considerable because of the extent to which expenditures on fuel, utilities, transportation and maintenance related to priority service delivery are being compromised.

128. The share of pharmaceuticals in expenditure declined from 26-30 percent in 1997/8 to 22 percent in 2000 (see Table 22). Nevertheless real spending on pharmaceuticals increased by 58 percent over the period 1997-2000.

Table 22. Health expenditure (actual) by economic classification

Item	1997	1998	1999	2000	Growth 1997-2000
in billions of current Meticais:					
Total expenditure	817	1028	1,331	1,781	-
Recurrent expenditure	654	876	1,112	1,461	-
Salaries and personnel-related costs	244	353	461	569	-
Pharmaceuticals	172	261	267	327	-
Other goods & services and recurrent costs	239	262	384	565	-
Capital expenditure	162	152	219	320	-
in billions of constant 2000 Meticais:					
Total expenditure	982	1,182	1,487	1,781	81%
Recurrent expenditure	787	1,006	1,242	1,461	86%
Salaries and personnel-related costs	293	405	515	569	94%
Pharmaceuticals	207	300	299	327	58%
Other goods & services and recurrent costs	287	301	429	565	97%
Capital expenditure	195	176	245	320	64%
Composition of recurrent expenditure:					
Salaries and personnel-related costs	37%	40%	42%	39%	-
Pharmaceuticals	26%	30%	24%	22%	-
Other goods & services and recurrent costs	37%	30%	35%	39%	-
	100%	**100%**	**100%**	**100%**	-

Source: HSER 2002, Tables 4.4 and 4.5, in turn from CGE 1998-200; Ministério das Finanças e SDC (2001) and others.

129. *The share of staff costs in recurrent expenditures is fairly low, at 40 percent* (see Table 22). In large part, this reflects the wage compression referred to above. The increase in staff between 1997 and 2000 was 3 percent, so that nearly all of the increase of spending on this item (94 percent, in real terms, between 1997 and 2000) went into compensation – salaries, benefits and training. Civil service wage scales were decompressed to some extent in 1999 and this explains the bulk of the increased compensation. Despite the increase in wages, as of 2000 the staff cost per worker was only $200[67] per month all told. Low salaries have often tempted professional health workers to engage in secondary income generating activities, and this may help explain the lack of impact of the salary reform on productivity.

130. *The salary decompression of 1997-2000 failed to induce significant productivity gains in terms of quantity or quality.* Between 1997 and 2000, health service provision rose by 13 percent, while service quality appears to have remained low. Services delivered per staff member rose by 7 percent (or just over 2 percent per year) while remuneration rose by 87 percent. The unit cost of service rose by 53 percent. From the point of view of civil service reform, the major increase in spending was not a success, in that by using the increased salary bill to reward the competent and by reassigning the incompetent, greater productivity increases could have been obtained, either in the form of increased outputs or improved quality. In the next round of civil service reform – in

[67] Source: HSER 2002, Table 4.6.

which the health ministry is one of the pilot ministries – it should be ensured that salary reform is more effective.

131. *Further expansions of health spending are planned.* The projections in Table 23 are mostly from the Health Sector Expenditure Review (HSER, 2002), which are based on (i) increasing resources for the health sector, consistent with the PARPA; (ii) increasing external financing as forecasted by the sector's medium term expenditure framework (Ministério da Saúde, 2001a); and (iii) GDP growth of 8 percent. This scenario leaves Mozambique almost as dependent upon foreign assistance as currently (66 percent in 2010 versus 69-70 percent currently). By 2010 spending would be about $20 per capita.

132. *However, these projections are inconsistent with the recurrent budget ceilings developed by this Review.* The methodology and rationale for determining ceilings on recurrent budget items was explained in paragraph 15 on page 22 (Table 4). In the case of health, this recurrent budget ceiling is reproduced in line 7 of Table 23. The implication is that the medium-term projections of Table 23 will have to be reduced by about 9 percent – unless additional donor assistance can be found *and applied to the recurrent budget.*

Table 23. Projected health spending up to 2010

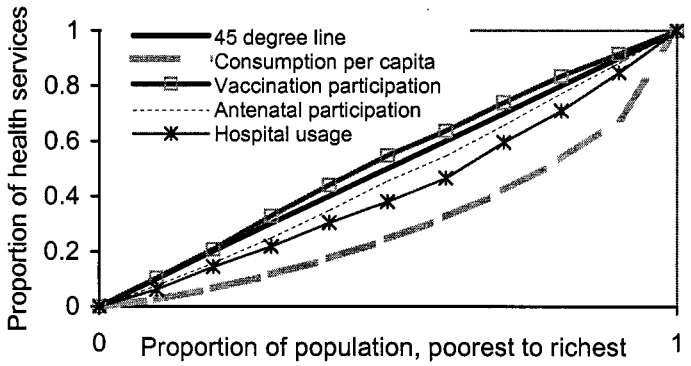
	Item	2000 actual	2001 est.	2002 est.	2005 proj.	2010 proj.
1	**Total public expenditure in the health sector**					
2	Nominal (Mt bn)	1,974	2,782	3,458	6,389	12,342
3	Real (constant 2000 Mt bn)	1,974	2,588	2,945	4,701	7,116
4	in percent of GDP	3.4%	3.8%	4.0%	5.1%	5.2%
5	**Total recurrent expenditure**					
6	from HSER 2002 (US$ m)	93	110	120	185	..
7	***feasible ceiling from Table 4*** (US$ m)	***93***	***110***	***120***	***170***	..
8	**Contribution from different sources of finance**					
9	*as percent of total expenditures in health*					
10	State budget, viz. from tax revenues	29%	27%	29%	31%	32%
11	Aid					
12	General budget support	18%	19%	18%	9%	5%
13	Grants and loans to health sector [a]	51%	52%	52%	58%	61%
14	Household contributions [b]	2.6%	2.1%	2.2%	2.2%	2.2%
15	**Per capita total expenditure in the health sector**					
16	In current Meticais ('000)	114	158	191	328	620
17	In US dollars	7.5	7.6	7.8	11.4	20.3
18	**Share of health in domestic state budget**	8.8%	9.7%	9.9%	11%	13%

Source: HSER 2002 Tables 4.10 and 4.11, unless otherwise stated.
[a] Source: Ministério da Saúde e SDC, 2001 (for 2000 and 2001).
[b] Source: from estimates of recorded user fees and charges in Austral e Ministério do Plano e Finanças (1999). These are probably understated.

133. *For those in receipt of health care, health service use is fairly equitably distributed, particularly for preventative health care.* A benefit incidence study using the 1997 household survey showed that the distribution of services from preventative health care (both vaccinations and antenatal care) are very close to the 45-degree line, indicating that service use is highly equitable in the case of vaccinations (Figure 6 reproduced from

Heltberg *et al.*, 2001). The benefits from curative health care[68] are less evenly distributed, with the poorest half of the population receiving about 35-40 percent of hospital and health center usage.[69]

Figure 6. Distribution of benefits from public spending in health by income decile



134. *Equity of access to basic services improved modestly, but much remains to be done.* A measure of equity is to compare the amount of services[70] per inhabitant on a provincial basis (Table 24). In the northern provinces these grew at generally faster rates than in the initially better-served southern provinces, so that the high/low ratio fell from 7.7 to 5.9 between 1993 and 2000, indicating a modest improvement.[71]

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[68] All individuals who accessed health services (hospital, health center, or other medical facility) during the month preceding the interview.

[69] In most countries consumption is more evenly distributed than hospital usage. Figure 6 indicates the opposite for Mozambique. This anomaly stems from: (i) respondents' confusion among "health post", "clinic" and "hospital", and (ii) the focus of the survey question on *public* facilities, omitting private hospital use by the better off.

[70] See the definition of the composite indicator of output at footnote 62 on page 66.

[71] The 1992 PER noted that the Government's objective was to increase the share of recurrent expenditures at Levels I and II (primary care) and thus improve the equity of the system. This share fell, however, from 64 percent in 1982 to 44 percent in 1989 and to 42 percent in 2001 (for details see Annex II, Table 39, p. 112). In preparatory work for the PESS it was assumed that the ratio could be raised to 47 percent by 2005 (Ministério da Saúde, 2001b, table 6). The tertiary hospitals in 2000 consumed 45 percent of the funding for goods and services. Another measure of equity is the ratio of the goods and services budget per capita for the most favored (Maputo City) and the least favored (Zambézia) province/region. This ratio fluctuated without trend between 3.92 and 9.51 between 1994 and 2001 – see Annex II, Table 39 on page 112.

Table 24. Health service units per capita, selected provinces and regions

Health service units[a] per capita	1993	2000	increase (%)
C. Delgado (lowest in 2000)	1.6	2.4	45
Zambézia (lowest in 1993)	1.5	2.5	70
Maputo province + city + HCM [b] (highest in 1993)	11.4	13.9	29
Mozambique	2.7	3.6	35
Ratio: highest / lowest [c]	7.7	5.9	

Source: HSER 2002, Table 5.5.
[a] Weighted sum of a list of identified services (e.g. consultations). See footnote 62, p. 66.
[b] Maputo City and the Hospital Central de Maputo are included. Excluding them gives a similar quantitative result. Detailed data in HSER 2002.
[c] More comprehensive measures of inequality (e.g. coefficient of variation, using data for all provinces) delivered similar qualitative results.

This improvement notwithstanding, the territorial distribution of facilities improved only slightly between 1992 and 2002, with the total number of functioning facilities increasing from 1,140 to 1,224[72]. One speculates that the aim of *equity of access to basic services* might have been reached at lower cost by increasing further the number of rural facilities (with appropriate staffing and resources) in the under-served northern provinces; and that one of the explanations for the weakness of the link between the care effort and health outcomes may be that many needy people have not yet been reached.

135. *Key financial information on programs and other important aspects is unavailable.* The new functional classification, established in 2001 in accordance with UN standards, does not automatically contain detail about health intervention programs. These need to be created for each country's specific situation. Since this has not yet been done, it was not possible to identify how much expenditure was directed at important programs: Pharmaceuticals Support, Integrated Human Resource Development, Malaria Control, the Extended Program of Immunisation, Maternal & Child Health, Tuberculosis Control, and HIV-AIDS control. The ministry is currently working on such a detailed classification and it is anticipated that this will be introduced at least as soon as the SISTAFE is implemented. Another shortcoming is the tracking of the ministry's equity objectives: the standard budget execution reports have no breakdown by facility level (I to IV).

136. *Tracking surveys should become a standard instrument to improve expenditure quality and cut wastage.* The Expenditure Tracking and Service Delivery Survey (ETSDS, Lindelow *et al.*, 2003) in the health service was a pilot effort to obtain survey data to track the transfer of funds from the central government, to provinces, districts and health posts. It attempted to link measures of the effectiveness the funds transfer mechanisms to the effectiveness of spending at the local level. The ultimate objective of the survey was to examine and improve accountability. The premise of the ETSDS was that delays in budget execution, as well as weak systems of control, with consequent

[72] There were 1195 health posts in 1992, of which 255 had been damaged by the war, and 225 centers, of which 15 had been damaged (1992 PER, p. 105) – for a total of 1140 functioning facilities. In 2002 there were 1,224 facilities (Human Resource Directorate Annual Report).

scope for leakages and discretion in the allocation of resources, may adversely affect quality and efficiency of service delivery.

137. In fact the ETSDS found that record-keeping was so poor that it was impossible to determine whether there was leakage of funds between the different levels. It did, however, turn up evidence of leakage of drugs between the provincial and the district level. As mentioned above (para. 120), the survey confirmed that the user charge system is inequitable, lacks transparency and creates scope for staff to pocket the moneys collected.

138. Concerning drug administration, serious failings were found. As pointed out (para. 119), 58 percent of the clinics surveyed had suffered a stockout of at least one essential drug in the previous six months. The average stockout time was 6-7 weeks (Lindelow *et al.* 2003, p. 42). Only between 66 and 76 percent of all facilities had all essential ("EPI") vaccines in stock at the time of asking (*ibid.*, p. 44).

139. The ETSDS found that only 80 percent of staff were actually in post at any one time. Rural areas were particularly likely to have poorly qualified staff, and there are high levels of turnover and low levels of satisfaction of staff in rural areas. The whole question of staff incentives needs to be reexamined. It is not only a matter of salary, for rural staff complained of the lack of access to public services, access to training and career advancement.

140. The survey, in sum, revealed important information about the system's functioning and pointed the way to improvements. Several of its recommendations have been cited above. Overall the ETSDS was a successful venture and should be repeated in the health ministry and other ministries as a means of improving service quality.[73]

D. IMPACT OF HIV/AIDS ON THE HEALTH SYSTEM

141. *Mozambique is one of the African countries hit hardest by the HIV epidemic.* In 2002 about 1.1 million Mozambican adults and children were living with HIV/AIDS, with an adult prevalence of 13.8 percent. The impact of the epidemic is likely to grow more serious during the next decade (Ministry of Health *et al.*, 2002), with prevalence of HIV/AIDS among adults increasing to 16.3 percent by 2010. 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. 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.

142. *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

[73] In addition, it would be even better if the routine data system were improved so that detailed data on spending were collected as a matter of course.

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, 2001a). 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; adding anti-retroviral therapy for 10 percent of HIV/AIDS victims would cost more than another half (Table 25). The total would be 3.0 percent of GDP, compared with the 2.8 percent of GDP spent on health currently. These costs would double by 2010.

Table 25. The cost of HIV-related health services (percentage of GDP), 2000-2010

	2000	2010
Total HIV-related health services, for the assumed rates of coverage	3.0	5.9
Of which: Palliative care and prevention of opportunistic infections	0.3	0.5
Clinical treatment of opportunistic infections	1.1	1.8
Costs of highly active antiretroviral treatments (HAARTs)	1.7	3.6

Note: 1. Assumptions: coverage of 30 percent for palliative care and prevention of opportunistic diseases, 20 percent for clinical treatment of opportunistic infections, and 10 percent for HAARTs. The assumed coverage rates are not intended as statements of desirable coverage, and simply reflect the fact that access to health services is limited.
Source: Haacker, M. (2001a), Tables 6 and 7.

143. *The costs of the loss of professionals in the health sector is also 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, 2001a). At a rough estimate of $10,000 (Pavignani 2002) for training a new professional, and assuming realistically a death rate of some 100 per year, the incremental training cost would be $1 million annually. This rough estimate does not account for the costs of absenteeism due to HIV/AIDS.

144. *The authorities are studying the financial implications of HIV as a part of the continued public expenditure review process.* No attempt is made here to incorporate these rough estimates of the costs of HIV/AIDS in the financial projections, because (i) the study has not yet been done, and (ii) decisions on coverage and nature of care have not been taken. However, given the magnitude of the costs, it is self-evident that a comprehensive response to prevent and mitigate the impact of HIV/AIDS needs to be operationalized as a matter of priority. In the meanwhile, attempts at prevention are clearly essential, and the Government's strategy in this regard should be pursued vigorously.

E. POLICY PRIORITIES FOR THE HEALTH SECTOR

145. *The Government is making progress with prioritization but there is still much to do.* The *Plano Estratégico do Sector da Saúde* (PESS – Republic of Mozambique, 2001), despite its name, consists to a large extent of a listing of areas where strategizing is needed, but does not actually lay out concrete strategies to address several of the key problems. An example is Mozambique's very high maternal mortality rate (1,083 per 100,000 live births, well in excess of regional averages): although this problem is cited several times, the PESS contains no clear policy directions to reduce the rate. Another

example is the lack of spending, output and outcome data on the major cause of mortality, namely malaria. The Government recognizes that the PESS – a living document – should be improved and adjusted to the rapidly changing environment, and is undertaking steps in this direction: a revision of the PESS is expected in the near future; an Investment Plan was completed in 2002; specific health development plans for major urban areas will be developed; several studies of gender aspects of health are envisaged; under-served areas have been defined; and an attempt is being made to create a common donor fund. It is urgent that these plans be brought to fruition, and that there be detailed prioritization linked to spending numbers and based on sound analyses and monitoring, so as to pursue the difficult objectives of increased equity and the expansion of the network to include the under- and unserved.

146. *Spending and output data for monitoring and evaluation* of the vertical programs such as malaria control are needed for monitoring and assessment. A program-based classifier is being developed so that the budget execution reports can report health expenditures more effectively; in addition, the detailed functional classifier which was formally adopted in 2001 needs to be implemented so as to be able to track poverty-relevant expenditures.

147. *The various policy and strategy documents need to be consolidated* in a consistent planning instrument with clear prioritization linked to resources. This consolidation should include the *Plano Estratégico do Sector da Saúde* (PESS). This can and should be done regardless of the type of strategy the donors adopt for conveying financial aid – *Fundo Comum*, budgetary support, or a continued project approach under strengthened Government leadership.

148. In this regard, a quote from the 1992 PER is instructive: "This fragmented organizational structure is not well suited to the acute scarcity of qualified personnel ... Overlapping responsibilities and a lack of coordination between units are commonplace.. No single unit within the Ministry has a precise overview of all the ongoing and planned projects for a complete picture of external assistance to the health sector... This lack of coordination severely limits the Ministry's ability to ensure that health expenditures are in line with overall national priorities." (World Bank, 1992, p. 102). Regrettably some of these statements are still true in 2003. The underlying causes of this apparent stasis were explored in Chapter 2 (p. 33): fragmentation associated with multiple competing donors, limited managerial capacity, and civil service incentive problems. The solutions proposed were an increased focus on outcomes using the PARPA, progressive incorporation of expenditure analysis in the budget cycle, the progressive replacement of projects by budget support, together with civil service reform, and the pursuit of budget comprehensiveness.

149. *The "Fundo Comum" is an attempt to correct budgetary fragmentation, but is not the only option.* Similar to the PRO-AGRI in agriculture, the hope is that the Fundo Comum will enable a common platform for the donor community to engage the authorities in policy debate, to provide funds jointly, to ensure common procurement rules, and to monitor effectively. The aims are laudable. Reducing the total number of projects probably does reduce the Government's bureaucratic burden. However, as the experience in roads and in agriculture showed, the negotiation involved in setting up and running sector-wide instruments is extremely time-intensive for both Government and

donors, and in neither case did this result in effective monitoring of the impact of expenditures on outputs and outcomes. Hence it should not be assumed that this is the only solution. There are two alternatives. One is for the donor community to move an increasing share of its funding into budget support and to rely on the Government's procurement setup, which in turn would require more focus on the overall fiduciary framework; given that project funds are in any case fungible, the gains in control over a small segment of Government spending are lost if the overall fiduciary quality is low. Another solution – a short term stopgap expedient only – is that the Government adopt stronger leadership, take on fewer and larger projects, and seek to upgrade its policy capability, its output and outcome monitoring, and its financial information.

150. *Extension of the health service to under- and unserved areas should be a priority.* Only about half of the population is reasonably served by the health system (*vide* hospital births of 45 percent, immunization 57-61 percent). An extension is needed of the primary health system to cover the remainder who are often in areas distant from large towns. Travel times to medical assistance should come down, qualified staff should be placed in sufficient numbers, and drugs should be available consistently. Equality of access to health services is already a key objective of the Government's strategy and the health system is already seeking to attain these objectives. This expansion could a key aspect of the Government's pro-poor orientation. In addition – based on evidence in other countries about roads and health – extended road rehabilitation in areas difficult of access could be an effective health intervention.

151. *Pursuit of basic health will require reallocations and cutting waste.* Improvements are needed in the use of drugs, as explained above. Efficiency gains in hospital spending need to be made, starting with the low bed occupancy rates. There should be full cost recovery for services beyond the basic health service package, at least at the level III and IV institutions.

152. *Consideration should be given to extending the roles of for-profits, non-profits, community health workers and of traditional healers, so as to cover the under-served.* As **private sector health activity** increases (especially in the cities) the National Health Service could increasingly target its efforts at those unable to pay. The role of the **NGOs** has increased in recent years and could be encouraged further. The PESS suggests, but does not develop a clear strategy for, extended collaboration with **community health agents** (e.g. midwives). The PESS notes that current health policy is in favor of collaborating with the **traditional medicine** sector, but that in practice little has been done. Since a significant number of Mozambicans use these services, either exclusively or in conjunction with the National Health service, collaboration could be cost-effective.

153. *The next round of civil service reform in health should learn from the lessons of the past.* An increase in output per staff of 2 percent per annum for three years, in exchange for an increase in remuneration of 87 percent cannot be pronounced a success. Effective methods of linking pay and promotion to performance, and of properly remunerating health care professionals, must be found so that the next round of civil service reform is fruitful.

154. *The user fee system needs a complete overhaul.* The user fee schedules lack transparency and vary hugely by facility. Overcharging is common and exemptions are

not consistently granted, discouraging the poorest from seeking care. As the Expenditure Tracking and Service Delivery Survey found, it is often the case that the amounts charged are not duly remitted through the official channels.[74] Among the elements in the needed reform are: civil service reform so that all staff are appropriately rewarded; a requirement that all units advertise the user fee schedules and exemptions in user-friendly ways; unannounced inspections to penalize non-compliance; and regular beneficiary surveys and expenditure tracking surveys to assess the extent of non-compliance. The Government could also consider abolishing fees at Level I facilities altogether, because the contribution the fees make to the district budgets is quite small, and little is retained by the facilities themselves. Finally, *all user fees should be reflected in the budget.*

155. *The authorities could consider contracting out the management of parts of the health service*, e.g. certain of the hospitals. This may be a way to attract highly competent management, permit greater freedom in the selection of staff, and lighten the administrative burden for the Government.

[74] The Government has already considered such a reform, and has done a costing study of the Maputo Central Hospital with this in mind.

CHAPTER 5. ROADS

A. INTRODUCTION

156. 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. The classified road network consists of 25,000 km of roads, of which 4,275 km are primary, 7,880 km secondary and the remainder tertiary. Some 5,000 km are paved. The country is extremely sparsely served, with 32 km of road per 1000 square kilometers, lowest in the southern Africa region whose average is 135 km and median is 90 km.[75] Only 57 percent of the classified network is maintainable, i.e. in good or fair condition, again one of the least developed in the region, whose average was 71 in 1997 percent. Rural roads comprise 53 percent of the network, not far off the median in the southern African region of 59 percent.

157. In 1992, Mozambique was emerging from a prolonged conflict that left the road network in extremely poor condition and road management institutions lacking in capacity to plan or execute the civil works to rehabilitate and maintain the network. At the same time, it was acknowledged that transport policies had been biased toward the major east-west, port-rail transit corridors, and had led to a neglect of road infrastructure to serve the domestic and export economy.

158. The main objectives were to restore serviceability to the 1973 level by 1998 through road rehabilitation, bridge replacement and recurrent and routine maintenance. This was to be achieved through: (a) policy reforms, including private sector involvement in civil works, cost recovery in financing road maintenance, and decentralized decision making; (b) institutional development, through training engineers and technicians to plan and implement civil works; and (c) rationalizing investments, by balancing maintenance and rehabilitation, meeting the transport needs of the agriculture sector, and alleviating poverty. The donor community contributed to the effort in various ways, including the Roads and Coastal Shipping (ROCS) Programs 1 and 2 (1994-2002), and Roads III which began in 2002.

159. The overall performance of the sector against the objectives and benchmarks established in 1992 was fair, barring one serious reservation, namely periodic maintenance:

- ***Institutions.*** Substantial progress was made with institutional capacity building, developing the execution capacity of local road networks, with the training of technicians and engineers, and with private sector involvement in road rehabilitation and maintenance.

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[75] Similarly, road density per million inhabitants is 1,440 km, again the lowest in the region, whose average is 6,393.

- ***Rehabilitation.*** Roads in good or fair condition rose from 10 percent to 57 percent of the classified network under the two donor- and Bank-supported roads programs, the Roads and Coastal Shipping (ROCS) 1 and 2. Impassable roads decreased from 50 percent to only 8 percent.
- ***Regional roads:*** Between 1992 and 2000 some 6,630 km of tertiary and unclassified roads were rehabilitated, most of it in Manica, Zambézia, Cabo Delgado and Nampula.
- ***Routine maintenance*** made considerable progress. Less than 4000 km were given routine maintenance in 1994; this rose to 15,000 km annually by 1998, achieving 80 percent of the target.
- ***Periodic maintenance*** fell well short of expectation. The plan was for 3000 km/yr, but only an average of 434 km/yr was done, or 18 percent of plan. The cumulative maintenance backlog of over 16,000 km exceeds the size of the maintainable road network. Considering that a maintenance backlog already existed, it is clear that the failure to perform the required level of periodic maintenance undermined some of the positive impacts on road condition from the program of road rehabilitation. The reasons for this massive failure are examined below.

B. KEY ROADS SECTOR ISSUES

160. *Autonomy of roads management: much done, much to be done.* Autonomy is called for in order to maximize efficiency in allocation of investment resources for the national road network. An important step was the creation in 1999 of the National Roads Administration (ANE), to replace the National Directorate of Roads and Bridges. The ANE is responsible for the administration of national and regional roads, and for road financing through the Road Fund. ANE is an autonomous public institution subordinate to the Minister of Public Works and Housing. The management of ANE reports to a Board of Directors which includes both private and public sector representation.

161. With the objective of achieving objectivity in resource allocation and a concomitant separation of local political influence from national road allocation decisions, a second phase of road sector reforms calls for the separation of the Road Fund from ANE, each with its own board comprising both public- and private-sector representation, the creation of a National Roads Council with responsibility for road policy, and more effective decentralization of road planning management responsibilities.

162. *Little decentralization has been achieved.* Very little planning, policy or management capacity exists at the provincial level. The desired devolution of decision-making and management to provincial and local authorities who are best able to assess local needs will not succeed until such time as such capacities are in place. The Roads III program contains substantial resources to this end.

163. *Upgrading the analytical capacity* of the road administration system is an urgent task. The statistical and monitoring capacity of the ANE is deficient, and in particular there is no regular monitoring of donor-funded expenditures. The upgrading should be

sufficient to permit *ex post* analysis, to guide planning, to permit effective monitoring, to monitor donor-funded expenditures and to permit further improvements in efficiency.

164. *More progress with developing private contractors is needed.* Routine maintenance shifted from being entirely state-run on force account to being split among the parastatal road maintenance companies (Empresas de Construção e de Manutenção de Estradas e Pontes) or ECMEPs (40 percent), labor-intensive brigades[76] (20 percent) attached to the latter, three large private contractors (25 percent) and several small companies (15 percent). The ECMEPs were originally formed in the ten provinces to execute road works for the Government. Suffering from severe bureaucratic inefficiencies, they were reorganized into three regional companies which were to operate on a commercial basis, and eventually to be privatized. They obtained financial autonomy in 2000. However, they are still in charge, without bidding, of a significant part of maintenance services in the provinces. Repeated efforts to privatize the ECMEPs have so far failed and this remains as one of the main tasks of the Roads III. As a step thereto, there should be a formal **requirement that all contracts be subjected to competitive tender**, which would induce the ECMEPs to restructure and possibly even provide them with an incentive to seek privatization. Also, a timetable for privatization should be established.

C. EXPENDITURE TRENDS

165. *The roads sector is the highest-spending sector on the investment account and third highest in total, after education and health.* All roads expenditures are recorded, for historical reasons, as being on the investment account, even if they take the form of recurrent expenditures such as routine maintenance. In the 2002 Budget, for example, roads were allocated Mt 700 bn (23 percent) on the internal investment account and Mt 1,476 bn (19 percent) on the external (donor-funded) investment account, totalling Mt 2,176 bn, or 20 percent of the total investment account. This exceeds planned investment account spending in health of Mt 2,074 bn. Summing recurrent and investment accounts, education was the largest planned spender at Mt 4,448 bn, health the second largest at Mt 3,573 bn and roads the third at Mt 2,176 bn. The roads sector accounts for about 14 percent of planned spending of the PARPA "priority sectors"[77] and 9 percent of total spending. Roads spending is around 2.3 percent of GDP, similar to that of Malawi of 2.4 percent in 2001.

166. Data on actual donor-funded expenditures are being collected from the donors at the time of writing (May 2003). These will be reported when they become available, and will be compared with budgeted donor-funded expenditures.

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[76] Termed (Brigadas de) Uso Intensivo de Mão de Obra (UIMOs). From 1992 to 1998, the UIMOs rehabilitated 4000 km of tertiary roads. There are over 40 brigades operative in all ten provinces.

[77] Priority sectors: see footnote 3, p. v.

167. *Rehabilitation and maintenance are moving towards a better balance.*[78] As may be seen from a summary of budget allocations in Table 26, rehabilitation (including district and rural roads) used to account for as much as three times the spending on maintenance in the mid-1990s when the post-war rehabilitation program had just begun. Since then the ratio has settled at a level closer to 2 or 2½ to 1.

Table 26: Road sector budgets, 1996-2002

Item	1996	1997	1998	1999	2000	2001	2002	Average
			Current Mt 10^9					
Rehabilitation	590	551	456	390	332	716	870	558
Maintenance	146	310	459	405	246	332	536	348
District-Rural Roads	68	558	283	387	305	465	333	343
Institutional Costs	191	249	129	78	131	168	436	198
Total	**995**	**1,668**	**1,327**	**1,260**	**1,014**	**1,681**	**2,176**	**1,446**
Constant 2000 Mt	1,233	1,942	1,536	1,414	1,014	1,570	1,861	1,510
US$ (millions)	88.1	144.5	112.0	99.3	64.6	81.6	91.2	97.3
Share of total Gov't expenditures	14.7%	17.5%	13.1%	9.8%	6.1%	-	-	11.2%
Rehab+Dist-Rur. / Maintenance	4.5	3.6	1.6	1.9	2.6	3.6	2.2	2.8
Institutional costs as % of total	19%	15%	10%	6%	13%	10%	20%	14%

168. *Maintenance expenditures have leveled out in real terms since 1996 despite growing maintenance needs and a growing economy.* As Table 27 shows, maintenance spending was $24 million in 1996 and despite some fluctuations, stood at $25 million in 2001—notwithstanding the fact that the amount of maintainable roads increased from 2,500 km in 1993 to about 13,000 km in 2002. Also, the Mozambican economy grew 48 percent in real terms between 1996 and 2001. The upshot of the failure to expand maintenance expenditures is that *periodic* maintenance has been increasingly neglected (whereas routine maintenance has fulfilled targets to the extent of 80 percent, as mentioned above). The best performance against target in periodic maintenance was in 1994 when 42 percent of what was required was done, and the second best was in 1996 with 20 percent. In 1998 the amount was 5 percent and in 1999 12 percent.

[78] There is virtually no new road construction as the costs of rehabilitation of existing roads are much lower.

Table 27. Expenditure on roads, by maintenance / investment, 1995 to 2001

	1995	1996	1997	1998	1999	2000	2001
Billions of Meticais							
Total	n.a.	n.a.	n.a.	n.a.	..[a]	..[a]	..[a]
Maintenance (reported by Road Fund)[d]	125	266	334	347	345	541	513
Investment (viz. rehabilitation)	n.a.	n.a.	n.a.	n.a.	..[a]	..[a]	..[a]
As reported by Road Fund	546	653	284	536	302	371	421
Other donor-funded expenditures[c]	n.a.	n.a.	n.a.	n.a.	..[a]	..[a]	..[a]
The equivalent in US$ millions							
Total	n.a.	n.a.	n.a.	n.a.	..[a]	..[a]	..[a]
Maintenance (reported by Road Fund)[d]	13.9	23.6	28.9	29.3	27.2	34.5	24.8
Investment (viz. rehabilitation)	n.a.	n.a.	n.a.	n.a.	..[a]	..[a]	..[a]
As reported by Road Fund[b]	60.5	57.8	24.6	45.2	23.8	23.6	20.4
Other donor-funded expenditures[c]	n.a.	n.a.	n.a.	n.a.	..[a]	..[a]	..[a]
Memo: Mt/US$	9,022	11,294	11,546	11,850	12,689	15,689	20,670

Source: Road Fund data; see Herman (Jan. 2003, Table 38).
Note: [a] Donor-funded expenditures *not* recorded by the Road Fund have to do with rehabilitation. The data were not yet available at the time of going to press. [b] No importance should be attached to the apparent decline in rehabilitation spending. There is probably a problem with coverage by the Road Fund data sets. This is being corrected by obtaining data from MPF and donors directly. [c] These data were not yet available at the time of going to press. [d] Most maintenance is internally funded – see Table 28.

169. *Donors contribute to all areas of roads expenditure, including maintenance.* The objective of the Road Fund is to finance recurrent expenditures, using chiefly the proceeds of the fuel tax. Nevertheless donors have contributed in all areas, as is shown in Table 29. Donors are responsible for nearly all the funding of rehabilitation (91 percent), as this is a capital item, and most of district and rural roads (70 percent) and periodic maintenance (76 percent).

Table 28: Funding sources (internal and external) for the road sector budget, 1996-2002

Budget Item	Internal	External	Total
Rehabilitation	9%	91%	100%
Routine Maintenance	98%	2%	100%
Periodic Maintenance	24%	76%	100%
District-Rural Roads	30%	70%	100%
Institutional Costs	16%	84%	100%
Total	25%	75%	100%

Source: Orçamento do Estado.

170. *Budgeted and actual spending show wide variation.* The figures in Table 29 should be regarded with the utmost caution because in some cases the annual budgets were changed during the year but the changes were not published, and because until 2000 budgets were done in real terms, and high intra-year inflation would result in an apparent budget execution rate in excess of 100 percent (e.g. as much as 164 percent in the mid-1990s). In addition, the data are from different sources (MPF, Road Fund, and donors). With these caveats in mind, it is clear from Table 29 that planned and actuals are often far

apart. In 2000 and 2001, execution of the government-funded component of the budget was only fairly low, at 87 percent and 72 percent respectively.

Table 29. Budgeted vs. actual spending, by funding source, 1995 to 2001

	1996	1997	1998	1999	2000	2001
			Billions of Meticais			
Domestically generated (fuel tax and govt. budget)						
Budgeted	148	181	252	263	389	581
Actual	93	244	294	323	339	417
Actual as % of budgeted	*63%*	*135%*	*117%*	*123%*	*87%*	*72%*
Externally funded (donors)						
Budgeted	847	1,487	1,075	996	625	1,100
Actual (total)	.. [a]	.. [a]	.. [a]	.. [a]	.. [a]	.. [a]
As reported by the Road Fund	826	374	589	324	573	517
Other donor funding	.. [a]	.. [a]	.. [a]	.. [a]	.. [a]	.. [a]

Source: Orçamento do Estado, Road Fund data.

[a] Donor-funded expenditures *not* recorded by the Road Fund have to do with rehabilitation. The data were being assembled at the time of going to press.

171. *Execution rates will need to rise in order to justify the appeals for further transfers to the Road Fund.* Road Fund revenues from road taxes and tolls was in excess of Mt 555 billion in 2001, close to the budget of Mt 581 billion. Yet spending of these revenues was only Mt 417 billion, an execution rate of 72 percent. As pointed out above, maintenance activity needs to be increased and more budget will be required, but a necessary step to get there is that the roads authorities succeed in executing a significantly higher share of the budget than 72 percent in order to justify larger allocations.

172. *Inadequate funding contributed to the massive failure in periodic maintenance.* In 1994 the Government decided to earmark the petroleum tax for the Road Fund in order to provide a predictable level of funding for routine and periodic maintenance to support the rehabilitation efforts of ROCS 1 and 2. However, only 57 percent of the planned Government financing for the Road Fund between 1994 and 1998 was actually provided[79]. This was part of the reason for the massive under-performance of periodic maintenance cited above.

173. Funding for maintenance was inadequate because the real value of the petroleum tax fell 40 percent between 1994 and 2000. The levy on regular fuel was kept at Mt 671/litre from 1995 to 2001, resulting in a decline from $0.078 to $0.036. Furthermore, the authorities failed to transfer to the Road Fund even the portion of the tax that had been promised. As Table 30 shows, the total fuel tax in 2000 was $36 million, of which $22 million was transferred to the Road Fund, but this was well below the Government commitment (as of 1998) of $42 million, and also below the estimated maintenance requirements of $45 million. The persistent failure of the authorities to provision properly for maintenance obliged the donors, in Roads III, to foot a substantial portion of the periodic maintenance bill, on a decreasing basis, over a 10-year period, at the end of

[79] The data for the period 1996 to 1998 are presented in Table 30 on page 110.

which time the authorities would be wholly responsible for it. This is an unsatisfactory situation since it flies in the face of the principle of sustainability, viz. the principle that the authorities should not seek investments that they are not prepared to maintain.

Table 30. Transmission of Road Fund Fuel-Based Revenues

Item	1996	1997	1998	1999	2000
Total Fuel Tax	$22.9	$36.9	$39.3	$38.7	$35.8
Transferred to Road Fund	$16.4	$19.5	$21.6	$19.6	$22.4
Percent Transferred	72%	53%	55%	51%	63%
Government Commitment	$34.0	$40.0	$42.0	n.a.	n.a.
Routine Maintenance Requirements	$8.1	$8.5	$8.8	$9.2	$9.6
Periodic Maintenance Requirements	$19.4	$23.5	$27.6	$31.7	$35.8
Total Est. Maintenance Requirements	$27.4	$31.9	$36.4	$40.9	$45.4

Source: Road Fund.

174. *Poor organization also contributed to the massive failure in periodic maintenance.* Periodic maintenance is more difficult than routine maintenance, as it requires a more complex procurement process and design, whereas routine maintenance was readily assigned to the parastatal maintenance companies. In addition, periodic maintenance lacked an institutional advocate within the Direcção Nacional de Estradas e Pontes and later ANE, whereas other areas of work had their champions: routine maintenance fell under the Department of Maintenance, rural and feeder roads fell under the Directorate of Rural Roads, and rehabilitation programs enjoyed donor attention. Consequently when allocations to the Road Fund were below budgeted amounts, periodic maintenance was cut back. It will be essential to **reorganize the periodic maintenance arrangements.**

175. Looking forward, the Roads III program will succeed if the maintenance program is funded, as the Government intends, by restoring the fuel tax to its real 1997 level or committing to alternative funding sources providing the same funds. Every effort should be made to **ensure full funding of maintenance**.

176. *Rural road efforts are evidence of the authorities' drive for poverty reduction.* Rehabilitation efforts between 1992 and 2002 focused more on the tertiary and rural road network (6,630 km) than on primary and secondary roads. The Feeder Roads Program (FRP), funded by the ILO and a variety of donors including ASDI, DFID, and USAID, operates in all provinces, but particularly in Zambezia and Nampula. It has been effective in promoting labor-based techniques, thereby reducing unit costs and expanding employment. These techniques should be considered for application to civil works on the national network.

177. *Roads expenditure allocation choices have stressed poverty reduction but have not gone far enough.* Spending has been reasonably equally distributed by province, giving access to rural people and people in small towns (whereas, for promotion purely of industry, or middle class interests, efforts might have been directed at the two main cities and their links with the exterior). As mentioned above, district and rural roads have formed a large (24 percent) part of total spending. But at the district level there is a

negative correlation of poverty incidence and road density (viz. good-to-fair roads per unit area)[80], implying that poor people have to go further to get to a good-to-fair road. This is a result of the poor being concentrated in sparsely populated rural areas, which raises the unit costs of road services. It might not be efficient to seek to compensate fully for their isolation by seeking to provide equal access to roads to all, irrespective of relative cost. But some compensation is surely appropriate. Poverty indices should be explicitly be taken into account and significantly weighted when decisions on rehabilitation and maintenance are taken. A greater effort could be made with rural roads. It was stressed in the *Mozambique Agricultural Sector Memorandum* (World Bank, 1997) that one of the best government interventions on behalf of smallholders would be to strengthen the road system and improve district roads and even rural tracks to market locations.

178. *The Government's new program (Roads III) will incorporate equity considerations prominently.* A positive aspect of the Government's road sector policy and strategy is the recognition of the tradeoffs, in road investment, between the competing objectives of alleviating poverty and promoting economic growth. Although the PARPA prioritizes road investments in those areas of the country that have the greatest economic potential and largest populations as well as the highest levels of poverty, the Road Sector Strategy recognizes that these objectives may not always be in accord. The Road Sector Strategy and Roads III include a provision for allocating the investment and periodic maintenance budgets through the use of multi-criteria analysis which incorporates both economic feasibility and a measure of equity. This process should be strengthened by utilizing district-based poverty measures in the *ex ante* social impact analysis and by incorporating the *ex post* socio-economic impact assessments into the process; and by improving the economic analysis of projects through improved application of ANE's Highway Network Management System (HNMS).

D. POLICY PRIORITIES FOR THE ROADS SECTOR

179. *Continued strengthening of institutional reforms is key to progress in the roads sector.* The management of ANE should become more goal-based and focus more effectively on achieving instituional efficiencies and meeting its targets. The performance indicators that are part of the Roads III program should be used as a management tool to that end.

180. *Roads administration needs to be autonomous.* The Road Fund should be separated from ANE, as planned, and the Road Fund should be strengthened to better forecast funding needs, managing revenues, coordinating and auditing road sector budgets and expenditures, and ensuring transparency and accountability in its operations.

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[80] The simple correlation coefficient (r) is –0.18. There is no correlation between poverty incidence and the rehabilitation and maintenance effort, or road density, at the provincial level. But this means only that the provinces are so large that they incorporate districts that are vastly different, so that no correlation would be expected.

The restructured ANE and Road Fund boards should include private sector representation capable of requiring accountability of management.

181. *Funding for maintenance must be adequate.* If sufficient maintenance funding cannot be assured, the size of rehabilitation projects should be reduced. The Roads III program, supported by the World Bank through the Roads and Bridges Management and Maintenance Project (RBMMP) will be reviewed at mid-term and cut if adequate funding for maintenance has not been provided.

182. *Restructuring and reorganization is needed in order to ensure adequate periodic maintenance.* Periodic maintenance needs an institutional champion. Increases of funding alone will not be sufficient.

183. *The level of the petroleum tax should be raised substantially.* Raising it to the real level of 1997 would be sufficient to ensure full funding of the pluri-annual maintenance program for 2003. The conclusion of the Poverty and Social Impact Analysis (Nicholson, 2002) was that raising the tax would have a minor impact on the welfare of the poor.

184. *In order to reduce maintenance costs, the parastatal maintenance companies (ECMEPs) should be subjected to full competition and privatized.* All contracts should be subjected to competitive tender, which would compel the ECMEPs to restructure and possibly even provide them with an incentive to seek privatization.

185. *The equity orientation of road rehabilitation should be improved* through incorporating district-based poverty measures into the multi-criteria analysis called for in the Roads Sector Strategy.

186. *Roads expenditure data need a thorough overhaul.* Analysis of actual expenditures is complicated by the fact that neither the Ministry of Finance nor ANE maintain systematic data on actual externally funded expenditures on roads. The data available from the *Conta Geral do Estado* do not reflect the detailed budget lines in the Budget, do not distinguish consistently between external and internal financing for road sector expenditures, and are not always consistent with data provided by the Road Fund. Road Fund data on revenues distinguish among sources of funds, permitting calculation of internally financed expenditures, but they do not report the vast majority of externally financed expenditures. A unified accounting system for all road sector expenditures should be put in place. It is hoped that ANE's new Financial Management System will solve this problem. Furthermore, reliable data are needed on unit costs of rehabilitation and maintenance so as to permit policy-relevant comparisons over time and over space.

CHAPTER 6. WATER SUPPLY AND SANITATION

A. INTRODUCTION

187. Water supply and sanitation are of prime importance in the PER because of their complementary role[81] in preventing disease. Access to improved water supply and sanitation, accompanied by effective hygiene education[82], can be expected to improve both health and productivity, reduce drudgery, improve quality of life and provide increased opportunities for education and employment, especially for women and girls.

188. As of 1992, around ten percent of rural dwellers had regular access to safe water. In 1997 about 12 percent of rural people had safe water according to the household survey[83]. Although the PER of 1992 enunciated the ambitious goal of raising access to 35 percent[84] by 1995, this target was in fact reached only in 2001, when there were 12,490 waterpoints, of which 8,098 were functioning, serving a rural population of 12.6 million. Mozambique's coverage still lags behind Malawi (44 percent), Zambia (48 percent), Tanzania (42 percent) and Uganda (46 percent).

189. Access to household piped water in urban areas[85] was 29 percent in 1992. The goal cited in the PER of 1992 was 50 percent by 1995, but the subsequent decade saw no progress, and with urban growth, coverage had fallen to 25 percent by 2002[86]. In this respect Mozambique lags behind its neighbors – Madagascar (35 percent), Uganda (35-40 percent)[87]. Adding in people with access to clean water via standpipes and vendors (legal kiosks and illegal resellers), coverage is estimated to be some 70 percent in urban areas[88], rising to some 90 percent in Maputo City. On the other hand, *World*

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[81] e.g. Esrey's (1996) survey of African and other countries found that benefits from improved water occurred only when sanitation was improved. See also the summary by Wagstaff *et al.* (2002).

[82] For example, Jalan and Ravallion (2003) study in India shows that the health gains of piped water largely by-pass children in poor families, particularly when the mother is poorly educated. See also Varley and Tarvid *et al.* (1998).

[83] Ministry of Planning and Finance *et al.* (1998), Table 2.47. Access to safe water in the Poverty Assessment was defined as access to piped water (inside our outside dwelling) or a public tap.

[84] Note that the 35% coverage figure includes people with access to Small Piped Systems (towns), which account for four percentage points.

[85] Urban areas are here defined as the 21 largest cities, whose total population is 4.3 million. (The population of Mozambique is 16.9 million.) Smaller cities/towns fall in the category of Small Piped Systems which for convenience are grouped under "rural" water access.

[86] In 1997 about 27% of urban people had piped water either in-house or ouside the house (Ministry of Planning and Finance *et al.*, 1998, table 2.42), but the true figure might be lower because some of the outside-of-house access may reflect purchases from neighbors.

[87] World Bank staff estimates.

[88] In 1997 about 54% of urban people had safe water according to the household survey (Ministry of Planning and Finance *et al.*, 1998, table 2.47). Also in 1997, 92% of dwellers in Maputo City had access to

Development Indicators reports that access to clean water (including standpipes and vendors) is 85 percent, which is still behind Malawi (95 percent) and Zambia (88 percent) but higher than Tanzania (80 percent).

190. Total urban and peri-urban sanitation coverage is probably over 35 percent. This represents a considerable improvement over 1993 when the figure was closer to 10 percent.

191. Water resource management is a crucially important function for the Government to play, particularly in the light of Mozambique's vulnerability to floods and droughts. For reasons of cost, it was decided not to include water resources a major focus of this PER, because a thorough examination of Mozambique's water resource management issues would have required a large separate study. Nevertheless the key aspects are cited this report and the importance of appropriate investments and budgetary allocations is emphasized.

192. This chapter starts by providing the context behind Mozambique's mix of (modest) progress and regress. It then discusses the allocation and effectiveness of public expenditure in the water supply and sanitation sector. It then proposes a shift of priorities in several key respects.

B. KEY SECTOR ISSUES

193. The most urgent sector issue is the *inadequacy of rural and urban water supplies*, in terms of both coverage and quality of service, despite the decade of economic growth since the end of the war in 1992. The lack of regular supplies of safe water is particularly acute in urban areas, on account of the health risks involved.

194. *Poor physical sustainability of rural waterpoints.* Of the country's 12,490 rural waterpoints (mainly boreholes with handpumps), some 35 percent are broken, though in some parts the percentage is higher.[89] This is due to the lack of spare parts and the lack of human capacity for maintenance, in turn stemming from a lack of community involvement and commitment. At least 10 donors are involved in funding rural waterpoint installation, and varying degrees of attention have been given to sustainability, community involvement and "ownership". Since the authorities' adoption of the Demand Driven Approach in 1999, requiring a payment by the community of between 2 percent and 5 percent of the installation cost, it is expected that the breakdown rate will fall. In addition, training in planning and monitoring should be given to the provincial and district directorates responsible for water supply, and community training programs in the operation and management of waterpoints should be extended.

195. *Rural waterpoint installation is expensive.* Sinking a borehole costs $10,000 in Mozambique, versus $5-7000 in Malawi, Tanzania, Zambia and Ghana. Some of the

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piped water (in house, outside house, or public tap), whereas the average for Beira, Nampula and Matola was 61%, and other cities' access was 41% (*ibid.*, Table 4.15, p. 251).

[89] In Cabo Delgado province, where reliable data does not exist, at least 60% of rural waterpoints were not working as of 2002 (African Development Bank, 2002, iii).

differential has been attributed to reasons beyond the control of the authorities, such as aquifer conditions, the small size of the Mozambique market which limits the gains from economies of scale, poor roads, large distances, inadequate infrastructure and services, and a high level of business risk associated with high interest rates. However, since several countries in the region also face these problems. Hence a deeper investigation of this very specific issue may be called for in order to see whether there are additional factors that explain Mozambique's higher cost structure, and to identify opportunities for reducing the cost.

196. *Slow implementation in urban piped water access.* Unlike rural water supply, urban piped water supply requires major policy, regulatory and procurement interventions. Urban piped water access registered little progress in the decade after the 1992 peace agreement because the National Water Policy was formulated only in 1995. The policy of delegated management for urban water supply was innovative and one of the most forward looking in the region. The implementation of the policy began in late 1998 when FIPAG, a newly created asset holding body, signed a lease contract and a management contract with a private sector consortium, Águas de Moçambique (AdM), to manage the water supply of the five largest cities (Maputo, Beira, Nampula, Quelimane and Pemba). These five cities make up 70 percent of the total urban population. The delegated management process has been supported by the National Water Development II project (NWDP II). Five donors are involved in the sub-sector, the African Development Bank, the World Bank, the European Union, Netherlands and the French Agency for Development. Since then, with the setback of the floods of 2000, difficulties were experienced with the contract, necessitating a change of operators, explaining why little progress has been made to date. It is hoped that as the NWDP II picks up, coverage of household connections will rise, in the five major cities, from 33 percent in 2002 to 40 percent by 2005, though it is doubtful that the installation rate can be increased as quickly as this[90]. Nevertheless, progress had been made in policy formulation and institutional development, including with the regulatory function. The Conselho de Regulação do Abastecimento de Água (CRA, Regulatory Board for Water Supply) has been established as an independent regulatory body responsible for regulating private operator water supply and setting tariffs for municipal water supply entities.

197. *Access to water through standpipes in urban areas is one of several ways that water utilities will provide water to unserved customers.* The provision of the service will depend on affordability, water supply availability and the costs of providing service and what users are willing to pay. Rolling out of individual connections will continue as densification increases and is the most cost effective way to provide water services. However, 11-29 percent of urban dwellers rely on standposts for lack of money for an individual connection or because of land tenure issues. Since standpost services are cross subsidized by the utility from other consumers, a strong utility is a key to providing these services on a sustainable basis. Standpost service provided by the public utilities has been poor and usually a reflection of the financially viability of the utility. Data shows

[90] Extrapolating this rate of expansion, coverage of household connections in the five major cities would rise to 76 percent by 2015.

that only 19 percent of standposts are functional. The cost of water purchased at publicly operated standposts is low at about $0.15/m3, but pressure is often low and water stoppages common. A successful standpost or kiosk model is one that sells water at a price that reflects the market and provides a sustainable service.[91] An example is that of Angoche, which sells water to private individual managers, who in turn on-sell at prices determined by competition. The price is much higher ($0.77), but quality is better and people have been willing to pay for a more reliable service. At least 25 percent of urban dwellers rely on resale of water from those with connections. Officially, resale by individuals with connections is legally prohibited, but this law should be repealed, in part because the law is not enforceable, but primarily because allowing the sale of water to neighbors encourages more individual connections to the system, increasing competition, and bringing down the cost of water for those without their own connection.

198. *The Small Piped Systems (SPS) are a major development challenge* because of the large number involved (270), their poor state of repair (38 percent fully operational), and their generally poor financial situation. The number of domestic connections in the SPSs varies from 5 to 170, and in addition most SPSs have three or four standpipes. The number of people served by the SPSs varies from 2,500 to 19,400. Due to a lack of economies of scale, unit costs of service are high, but currently cost recovery is low. The complexity of SPSs is also a challenge for operation by community organizations. Currently the only donor involved with SPSs is the World Bank. Models of financially sustainable SPSs are presently being developed. It may be that the Government will need, in the meantime, to shoulder some of the burden of the capital and rehabilitation costs of SPSs, while bringing the standard of SPS service up to acceptable levels, rationalizing and strengthening management, and improving cost recovery.

199. *The PARPA goals and the Millennium Development Goals (MDGs) in rural water are achievable.* The PARPA goal of 40 percent rural coverage by 2005 is attainable on present projections, from a coverage level of 35 percent in 2002 and on the assumption of continuation of the rate of 1,300 new connections per year, even without reducing the breakdown rate. To achieve the MDG of 67 percent coverage by 2015 can be achieved with the planned rate of installation of 1,400 per year.[92,93] Hence the MDG is likely to be attained.

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[91] In addition, a model of standpipe management involving communities, local authorities, NGOs and the water utility is being tested. A contract for water supply through standpipes will be set up between the water utility and the vendors that will pay for water based on the approved tariff and resell water at a price agreed with the communities. The O&M costs of the standpipe will be paid by the standpipe users.

[92] Assumptions of the model: 35% breakdown rate; total population growth of 2.3%; urban population growth of 5%; implicly, growth of the rural population of 1.1%. This assumes that the problem of low execution of already allocated government funds (see Table 33) can be overcome.

[93] Further examination of the definitions of coverage is called for. In Mozambique the coverage estimate uses 500 people per water point. More conventional estimates in other countries are between 250 and 280 persons per water point. The water directorate had a study done of usage in 2003, and found that some waterpoints were used by 800 to 1200 people per time period. It was not possible to review this paper thoroughly in time for the issuance of this PER. The matter will be further examined by a national study to

200. *The PARPA and MDG goals in urban water may not be achievable.* The PARPA goal of 50 percent coverage of household piped water by 2005 may not be achievable on the present projections of the NWDP II.[94,95] The MDG refers to *piped household water* excluding standpipes.[96] The target is to reduce the unserved population by half by 2015, *viz.* to raise coverage from 25 to 62.5 percent. This is possible only if the NWDP II expands service continually at the ambitious rate planned for the period 2002-2005[97], and the projects funded by the ADB and others in the remaining cities expand at similar rates. As matters stand at present it is unclear whether the MDG will be attained.

201. *Other factors influencing water supply.* Other factors involved in the prospects for water supply are the limited public sector institutional capacity, coupled with the inadequate water sector information base and data collection and monitoring system. As mentioned above, there is an urgent need for reinforcing the training programs for provincial and district-level ministerial staff, as well as training in management for local communities.

202. *Sanitation has received less attention than water supply.* There is a need for improved sanitation, especially in urban and peri-urban areas, as is demonstrated by frequent outbreaks of faecal-borne diseases. To date, public investment for sanitation has been less than 10 percent of that for water supply. The under-funding is partly due to the lack of a strategy for the sub-sector, as well as to unclear responsibilities of the various actors involved. According to the National Water Policy, DNA is responsible for sanitation, but it has only recently formed a department for sanitation. In Maputo and Beira, the only cities with sewerage systems, the municipalities are responsible for operating the sewerage systems, not FIPAG and the private sector operator. At a minimum, coordinated planning is needed for water supply, hygiene promotion and sanitation, as noted in the 1999-2003 Rural and Peri-Urban Sanitation Strategy. At the Johannesburg 2002 Summit it was agreed to adopt the objective of reducing the proportion of the population without access to sanitation by half by 2015.

203. *Decisions need to be taken on the appropriate mix of sanitation instruments.* The forthcoming Strategic Sanitation Planning Study for seven major cities will indicate the most appropriate mix of sanitation 'technologies' and the likely costs involved. Maputo and Beira are the only cities with piped sewerage systems and these serve only a small proportion of the urban population in the more developed city centers. Other residents

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be undertaken by the Centro Estratégico e de Desenvolvimento do Sector de Águas (CEDESA) and the Water Sanitation Program of the World Bank.

[94] The target of 50 percent may, however, be feasible by 2007, given the expansion of the network, new construction and construction of standpipes.

[95] The PARPA goal is stated as raising urban coverage from 44 percent in 2001 to 50 percent by 2005 (see the matrix in the operational annex). Note that the definition of coverage here includes not only piped water supply but also standpipe usage.

[96] Note that the MDG does not distinguish between rural and urban water supply. Yet for convenience here it is split rural/urban, enabling a more precise focus which is useful because expectations for expansion in the two sub-sectors are radically different.

[97] See footnote 90.

rely on septic tanks and improved latrines. A relatively successful Low-Cost Sanitation Program (LCSP) has been in operation since 1980, focusing on improved latrines. Some 33% of the target population of 3.61 million in the urban centers included in the LCSP currently have access to improved latrines at a cost of about $4 per capita. The ADB's Four District Centers (South) study proposed a mix of septic tanks in town centers and improved latrines in the peripheral areas, combined with urban drainage, at a cost of $15 per head. An additional policy suggestion is to allow house connections to the piped water system only for households that are connected to the sewerage system or have installed a septic tank (Others could have yard taps). Such a policy would limit the amount of wastewater generated and reduce adverse health impacts that can result from increasing water supply without corresponding wastewater removal.

204. *Expensive sewerage systems are unlikely to be the solution for the foreseeable future.* Piped sewerage is much more expensive than LCSP, rising to over $100 per capita. There are numerous examples in African countries of expensive sewerage systems that stand idle due to lack of funds for operation and maintenance. In some cases, sewerage is collected, but not properly treated before being discharged to waterways. While the cost of collecting and treating sewerage is higher than the cost of supplying water, customers are typically much less willing to pay connection fees and monthly charges. In developed countries, governments often subsidize the cost of investment and cross-subsidize running costs from water tariffs or from tax revenues, arguing that the environmental benefits justify the subsidies. In Mozambique, the Government is unlikely to be able to afford such subsidies for the foreseeable future. The strategy should then be the continuation of the LCSP for peripheral areas, combined with the requirement that households with in-house connections in the central areas of cities connect to the existing system or, where that option is not available, install a septic tank at their own expense. Regulation of septic tank haulers will also be necessary to ensure proper disposal. In this regard, DNA has adopted a strategy of decentralization of responsibility for sanitation to the municipal level, and of introducing a sanitation tariff.

205. *In rural communities the focus should be on hygiene education, sanitation promotion and facilitation of the entry of small scale private contractors* to meet the demand for latrine construction. The Government has developed materials for such education and promotion in rural communities and has trained staff in some districts and provinces in their use. Education and promotion about hygiene and sanitation should become an integral part of community preparation in all rural water supply programs. Further investments will be needed to achieve these objectives, including investments in research for appropriate technologies.

206. *Water resource management issues need urgent attention and adequate budgetary allocations.* Concerning strategy development, the Ministry of Public Works and Housing is formulating an Integrated Water Resource Management (IWRM) Strategy with NWDP I funding. Mozambique needs to be well equipped to negotiate agreements concerning its river basins with adjoining countries. Provision for the costs of negotiation (e.g. over the Incomati-Maputo basin) should be included in future DNA budgets, and consideration should be given to obtaining contributions to the costs from the donor community. Finally, in view of the severe flooding experienced in 2000 and 2001, there is an urgent need for the government to develop a practical flood forecasting, warning

and management policy, strategy and program. A flood risk analysis study is due to be carried out during 2003.

C. TRENDS IN PUBLIC EXPENDITURE IN WATER SUPPLY AND SANITATION

207. *Water supply expenditures are mostly donor-funded.* In the last "normal" (viz. pre-flood) year for which data were available, 1999, total expenditures in the water sector, including both water resource management and water supply, were some $15 million, of which the Government funded $4.9 million and donors the remainder (Table 31). There was a large increase in donor-funded expenditure (though not of Government-funded expenditure) in 2000 and 2001 on account of the floods: in 2001 total expenditure on water rose to $24.5 million, of which donors contributed $19.7 million. Nearly 90 percent of water sector expenditures in Mozambique go to water supply and sanitation, and the remainder to water resource management.

208. *The distinction between recurrent and capital account is not meaningful in the water and sanitation sector.* The recurrent account is devoted almost entirely to salaries (98 percent). Salaries of project staff are paid out of the investment budget, as are expenses for goods and services.

Table 31. Water and sanitation sector expenditures (actual)

	1999		2000		2001	
	Mt bil.	US$ mil.	Mt bil.	US$ mil.	Mt bil.	US$ mil.
GDP (IMF 2002 data)		4,090		3,750		3,610
Total Water and Sanitation Sector Expenditure (including water resources)						
Total (Govt. + donor-funded)	n.a.	15.3	n.a.	28.3	n.a.	24.5
Government-funded expenditure	62.1	4.88	68.5	4.37	100.0	4.84
Recurrent account	2.4	0.19	2.6	0.17	3.8	0.19
Capital account	59.7	4.70	65.9	4.20	96.2	4.65
"Recurrent" costs	24.2	1.91	27.8	1.77	39.6	1.91
Salaries	9.0	0.71	11.6	0.74	16.9	0.82
Materials	15.2	1.20	16.2	1.03	22.7	1.10
"Capital" costs	35.5	2.80	38.2	2.43	56.6	2.73
Donor-funded expenditure	n.a.	10.4	n.a.	23.9	n.a.	19.7
Mem. item: Total exp. as % of GDP		0.37		0.75		0.67
Water Supply and Sanitation Sub-sector Expenditure						
Total (Govt.+ donor-funded)	n.a.	13.7	n.a.	27.3	n.a.	20.3
Government-funded expenditures	57.8	4.56	63.9	4.1	92.6	4.5
Recurrent account	2.2	0.18	2.5	0.16	3.6	0.17
Capital account	55.6	4.38	61.4	3.91	89.0	4.30
"Recurrent" costs	20.6	1.62	23.5	1.50	33.0	1.59
Salaries	8.1	0.64	10.1	0. 65	13.6	0.66
Materials	12.5	0.99	13.4	0.86	19.4	0.94
"Capital" costs	35.0	2.76	37.8	2.41	56.0	2.71
Urban water supply & sanit.	13.3	1,05	18.9	1.20	25.8	1.24
Rural water supply & sanit.	21.7	1.71	18.9	1.21	30.3	1.46
Donor-funded expenditures	n.a.	9.13	n.a.	23.2	n.a.	15.8
Mem. item: Total expend. as % of GDP		0.33		0.72		0.56

Sources: Conta Geral do Estado, Ministry of Finance, and DNA.
Notes: (1) 98% of the recurrent budget goes on salaries. Hence no breakdown is given. (2) Exchange rate assumptions: $1 = Mt 12,691 (1999), Mt 15,689 (2000), 20,707 (2001). (3) UWSS = urban water supply and sanitation (WSS) and RWSS = rural WSS. (4) With the data available it is not possible to separate donor expenditure into UWSS expenditure and RWSS expenditure.

209. *Mozambique's expenditure levels are similar to those of comparable countries.* Mozambique's proportion of public funding allocated to water supply and sanitation is not dissimilar to that of comparable African countries, as is seen in Table 32. Government-funded spending in Mozambique is 2.4 percent of budget, close to that of Tanzania (2.5 percent) and Zambia (2.6 percent).

Table 32. Water supply and sanitation spending in relation to the budget

	Percentage of Government budget
Mozambique (1999-01)	2.4
Tanzania	2.5
Uganda	5.0
Zambia	2.6

Note: The denominator is *Government-funded* spending only. Donor spending numbers were not available for the countries other than Mozambique.

210. *Budget execution in the water supply and sanitation sector is low.* Table 33 shows that in 2001 the National Directorate for Water (DNA) succeeded in spending only 54 percent of the investment budget allocated to it. The average for the period 1999-2001 was 63 percent.

Table 33. Execution of the Government investment budget, 1999-2001

Year	Total spent (Mt billion)	Equivalent in US$ million	% of GOM Investment Budget
1999	52,936	4.19	77.2
2000	57,699	3.73	56.4
2001	84,607	4.13	54.1

The under-spending is due partly to late arrival of DNA's first *duodécimo* allocation (as much as 8 months in some years) and partly to the complexity of the bureaucratic process involved in the replenishment system, as noted in an earlier chapter.

211. The rate of execution in donor-funded projects is not high. Actual donor-funded water sector expenditures in 1999 to 2001 as percentages of the pledged amounts in each year averaged 70 percent. One of the largest projects, NWDP I, is particularly behind schedule. Among the causes is the slow release of the GOM counterpart funds from the Investment Budget, as well as the concentration of institutional effort on the complex procurement and legislative process for the privatization of the management of the five largest cities.[98]

212. *Budgeting and goal-setting need to be improved.* Budget proposals by DNA for future years are unrealistically optimistic. Projections submitted in 2002 for FY 2003 anticipate an increase in spending from the $24 million actually spent in 2001 to no less than $88 million. Of this, the Government-funded component rises from $4.5 million to $8.7m, which is vastly in excess of what could realistically be executed. The donor-funded component of the projections envisages a rise from previous levels of $10m to $23m to an improbable $79.8m. Although increases can be anticipated in 2003 and 2004, as the NWDP I and II programs take hold, the increases suggested here are not feasible. Preparation of a new, realistic program for 2003-06 is called for.

213. *The quality of urban water service is poor*, though not unlike that of countries at a similar level of development. While the costs of operation and maintenance, at $0.10-0.15/m3, are within the range of comparable countries, the continuity of supply (11 hours/day as of 2002) is below the average for developing countries (20 hours/day). Furthermore, unaccounted-for-water percentages are high (54 % for Maputo and Beira) though similar to those in comparable African countries. Staffing ratios are high (24/1000 connections, vs. 17/1000 for East and Central Africa and 19/1000 for South Asia). Collection rations in Maputo and Beira are 76 percent but average about 50 percent in the smaller cities. In contrast, in Tete, where the management capacity of the

[98] Another factor is the degree of management decentralization granted to their Mozambique offices by the donors. The July 2002 NWDP I Bi-Annual Report quotes the slow approval process of both the Government and the World Bank as a cause of the NWDP I delays.

local water authority has been strengthened, the collection rate is 90 percent. The overall picture is one of low expenditure efficiency. Thus far, it appears that the introduction of private sector management in the five major cities three years ago has not yet solved the long-standing problems of service delivery. In part this is the result of poor infrastructure coupled with poor accountability and an absence of appropriate incentives. (In addition, at least a year was lost in implementation of private management because of contract difficulties at the start.) Efficiency improvements are a major objective of the NWDP II five cities program and other urban water supply projects.

214. *Connections coverage is a function of the poverty level.* In 1997, according to the household survey, 10 percent of urban households had in-house piped water (Table 34, line 1); 1.9 percent of the ultra-poor, 4.2 percent of the poor and 21 percent of the non-poor had in-house piped water. In addition, some households had piped water from sources outside the house (Table 34, line 2) but the data are ambiguous because some of these may include purchases of tap water from neighbors. But even adding in out-of-house piped water, the contrast is marked: the ultra-poor at 16 percent, the poor at 19 percent and the non-poor at 42 percent.

Table 34. Water sources of urban people, 1997 (percent)

Source of water	Ultra-poor	Poor	Non-poor	All
1. Piped (in house)	1.9	4.2	21	10
2. Piped (outside of house)	14	15	21	17
3. Piped (public tap)	28	28	23	26
4. Own well	11	13	9.0	11
5. Public well	27	24	11	19
6. River or lake	8.3	5.3	1.5	3.9
7. Other sources	10	11	13	12

Source: Ministry of Planning and Finance *et al.*, 1998, Table 2.42. In turn using data of the Household Survey of 1997.
Note: Some households have more than one water source, so that the totals sum to more than 100.

215. *Full cost recovery is feasible, over time, in urban areas.* The Government's policy is to phase in full cost recovery tariffs in urban areas. This will help ensure sustainability of urban network water supply systems. The full cost of water in Maputo is $0.60/m3. The average charge for household connections in Maputo in 2001 was $0.26/m3, so that full cost recovery would imply a real increase of 131 percent. Other cities' charges are mostly lower but fall in the range of $0.15-0.37/m3. As prices rise, it is likely that consumption will drop so the key to expand individual connections to encourage an increased volume of sales. The planned series of tariff increases will pay for O&M by 2005 and for all costs by 2008.

216. *The percentage of income paid for water is key to understanding expected sustainability.* It is typical that urban consumers with connections pay significantly less per cubic meter than those who rely on private vendors or private standpipes, as emerges from Table 35. Consumers of water from venders, stand posts, etc. use considerably less water than those on individual connections though the share of their income going to water may be the same. The regional average is 4 to 6 percent of income. The Beneficiary Survey in the major cities in 2001 established that the majority of

respondents would be willing to pay for a household or a yard connection given that water from other sources is more expensive.

Table 35. Prices paid for water in urban areas, by location and source

	US cents per m3
Household connections:	
Average charge, Maputo, 2001 (Finney 2003, p. 38, from FIPAG data)	0.26
Average charge, Beira, 2001 (Beneficiary Assessment Summary)	0.30
Standpipes:	
Maputo, 2001 (Beneficiary Assessment Summary, Sustem)	0.53
Beira, 2001 (Beneficiary Assessment Summary, Sustem)	0.53
Purchased from neighbors/vendors	
Maputo, 2001 (Beneficiary Assessment Summary; Finney 2003, p. 38)	0.53

The norm applied is that a household should generally not pay more than 4 percent of two minimum salaries for water. Currently this would imply a payment of just under $3 per month per connection, which is well above the current minimum tariff charge of $1.80 per month. To cover the full supply cost, however, the minimum charge would need to be raised to just over $4 per month or 5.5 percent of two minimum salaries. However, a survey in 2001 showed that 59 percent of households in Beira and Maputo were paying more than the 4 percent of two minimum salaries for water, because of the high price of unofficial water purchases. This suggests that the limit of 4 percent of two minimum wages is too conservative. It appears that full cost recovery is attainable and would be socially acceptable. In the case of the five biggest cities, the present plan is that tariffs will be raised steadily until full costing is attained in 2008.

D. POLICY PRIORITIES

217. The previous discussion leads to a thoroughgoing restructuring of the water supply sector. A key requirement is *full-cost pricing for urban piped water*, coupled with a major *improvement in the present low service standards* which should arise from improved management in the context of the contracting-out procedures presently under way.

218. *Urban stand posts will continue to be part of the landscape for the foreseeable future*, given the capital cost of installation of household connections for resource stretched utilities. *Serious consideration should be given to licensing privately operated kiosks* as is common in many African cities because of the reliably of such services and improved access. Additionally, community management of standpipes should be tested (see footnote 91). *Removal of the prohibition on neighborhood vending* would also promote competition and also increase access as the piped network expands; currently the prohibition is not being enforced in any case.

219. *The authorities should forge ahead with the Demand-responsive Approach to rural water* so as to reduce the 35 percent waterpoint breakdown rate.

220. *The provincial allocation of rural water supply efforts should take into account poverty and assessed needs.* The provinces that will benefit most from the 2002-03 rural

water supply (RWS) programme are Inhambane, Zambezia and, to a lesser degree, the three other northern provinces. This is appropriate, since these are generally the poorest. However, Nampula, despite being densely populated and having the lowest RWS coverage (17 percent), is programmed to receive only 317 new waterpoints in 2002/03, as compared with 671 in Zambézia (whose coverage is 23 percent), 444 in Inhambane (whose coverage is 29 percent), and 235-240 each in the less populous Niassa and Cabo Delgado. Poverty reduction would be better served by allocating more to Nampula. The new AfDB project is expected to be based in Niassa and Nampula, leading to significant increases in investment in these provinces.

221. *Water sector statistics need drastic improvement.* These should include an improved water sector information base, including the status and performance of urban water supply systems including the SPSs, and a regular rural waterpoint inventory system. FIPAG has already started the process of establishing a data base for the five biggest cities. In addition there is a need for regular information about donor disbursements, and regular information about the outputs of donor-funded programs.

222. *More attention needs to be given to urban sanitation.* The present approach by DNA, based on the Low-Cost Sanitation Program in the peri-urban and urban areas and health promotion and other 'soft' measures in both urban and rural areas, is sound and should be continued. The on-going Strategic Sanitation Plans Study is expected to provide recommendations for improving sanitation in urban areas through a combination of affordable options. At a minimum, institutional arrangements need to be clarified and more coordinated planning needs to be done so that improvements to sanitation and hygiene promotion are carried out in conjunction with water supply improvement.

ANNEX I. ACTION PLAN, AND MILLENNIUM DEVELOPMENT GOALS

223. This suggested action plan is a summary of what is already contained in the sections "Policy Priorities" in each chapter of the main text. It introduces no new information beyond what is contained in the main text. It may serve as a convenient checklist to monitor progress.

Table 36. Action plan

Area/Objective	Reform Measures	Timetable
Fiscal management: increase transparency	**Disseminate this PER** (Public Expenditure Review) in Government and civil society with workshops	2003 Q3
	Integrate public expenditure review in a *systematic* way into the budget cycle and the allocation decision-making process:	
	• Identify a narrow set of **targets for specific monitoring** in the PARPA process	2003
	• Strengthen the **statistical capacity of staff** in the PARPA priority ministries so that there are real-time data available on spending and on targets	2003-2005
	• Develop **systems for reporting** *systematically and regularly* on achievement of output and outcome objectives, and on all funds including donor-funded expenditures	2003-2004
	Clean-up of **Government accounts**:	
	• complete inventory of Government accounts at central banks and commercial banks	2003 Q1
	• close all accounts not linked with the 2003 financial year	2003 Q2
	Address the problem of **chronic under-spending** by increasing the amount of training in accounting and in the budgetary process	Continuous
	Improve **internal auditing** by substantial new hiring of qualified staff (originally planned for 2002)	2003-2005
	Introduce the integrated financial management information system (**SISTAFE**) by:	
	• rolling out to Education and Finance ministries	2003
	• rolling out to the remaining ministries	2004
Cross-cutting areas	**Civil service reform:**	
	• follow the Public Sector Reform program, with the sequence (i) restructuring, (ii) linking pay with performance, (iii) reviewing pay scales *[note: this will be a combination of raising pay and moderating pay, depending on the sector and occupation]*	2003-2006
	• investigate the alleged 20 percent "ghost employees" in primary education, and also investigate other sectors for	
	HIV/AIDS:	
	• do the planned "sector expenditure review" study of the implications of HIV/AIDS for Government expenditures	2003 Q2-Q3
Education	Raise completion rates in lower primary (EP1) from 30% (2001) to 60% (2008) by:	
	• curriculum reform including near-automatic promotion within cycles	2004
	• reducing school fees at primary level	2004

	• increasing recruitment of women teachers, especially in provinces where there are few women teachers, until balanced (50%)	Continuous
	Eliminate "ghost teachers" by:	
	• investigating the 20% "ghost teachers" in lower primary	2003
	• eliminating "ghost teachers" from the payroll	2004
	Merge the EP1 and EP2 cycles into a single primary education cycle	2005
	Increase funding for CFPP teacher training and revise curriculum to one-year basic training to increase annual output of primary teachers	2005
	Introduce ceiling for cost of classroom construction (US$10,000, including servicing and furnishing) and decentralize school construction program to local authorities	2004
Health	Consolidate the strategy and policy documents in a single planning system with prioritization linked to resource allocation.	2003-2004
	The user fee system:	2003
	• Thoroughly review the system, so as to reduce over-charging and grant exemptions consistently	
	• On the basis of the review, introduce reforms which may include: posting readable information about fees and exemptions at all clinics and health posts; improving remuneration levels in the context of the civil service reform program, linking performance with compensation; conducting regular beneficiary assessments; introducing more unannounced inspections	2004
	Reflect all user fees and other funds on budget	2003
Roads	Separate Road Fund from Administração Nacional das Estradas	2003
	Restore fuel tax to its real 1997 level	2003
	Provide full funding for routine and periodic maintenance	2003-2005
	Create a suitable institutional "home" for periodic maintenance	Start in 2003
	Subject all to competitive bidding all routine and periodic mainenance contracts for parastatal maintenance companies	Start in 2003
	Privatize the parastatal maintenance companies (ECMEPs), raising the share of privately executed maintenance from 40% (2002) to __% by ___ *[target to be set by authorities]*	2003-2008
	Reorganize the periodic maintenance arrangements to raise maintenance from 434 km/yr (1995-2001) to ___ km/yr by __ *[target to be set by authorities]*	2003-2005
Water supply	Urban water supply:	
	• increase rate of household connection installation from 2,500/yr (1999-2001) to 21,800/yr (NWDP II plan for 2002-2005)	2003-2015
	• apply full-cost tariffs by 2008	2003 - 2008
	• improve urban standpipe service quality, by adopting the private standpipe operator approach	2003-2005
	• scrap rules against resale of water	2003
	Rural water supply:	
	• raise waterpoint development rate from 900-1300/yr (1999-2002) to 1400/yr	Start in 2003
	• reduce the % of non-functioning waterpoints (currently 35%) and continue application of the Demand Driven Approach	

Table 37. Mozambique's progress towards the Millennium Development Goals [99]

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 about 69% to 33.5%	Unknown	Results of the 2nd household survey – expected in late 2003 – will will enable an assessment of the prospects
HIV/AIDS: Halt and reverse the spread of HIV/AIDS by 2015	Unknown	Impact of the Government's new strategy, backed up by a the WB-financed HIV/AIDS Response Project, could be examined in 2004 which would permit an assessment
Hunger: Halve the proportion of people who suffer from hunger by 2015	Unknown	Results of the 2nd household survey – expected in late 2003 – will will enable an assessment of the prospects
Access to safe water: Halve the proportion of people without safe drinking water by 2015 (viz. rural: raise access from 35% to 67%, urban: from 25% to 62.5%)	Rural: yes Urban: uncertain	See chapter on water supply
Education: Universal completion of primary education by 2015	Unlikely	Unlikely to be met despite Education For All due to constraints on recurrent expenditure
Gender equality: Eliminate gender disparity in:		
▪ primary education by 2005	Yes	Access: Achieved w.r.t. primary by 2002. (Completion: likely date unknown; depends on efforts to recruit female teachers.)
▪ secondary education by 2005	Unknown	Access: likely date unknown. (Completion: likely date unknown.)
▪ all levels of education by 2015	Unknown	Access at tertiary: likely date unknown. (Completion: likely date unknown).
Child mortality: reduce under-5 mortality by 2/3 by 2015, viz. from 200/1000 to 67/1000	Unlikely	Optimistically projecting recent improvements, the rate is 180 by 2015.
Maternal health: reduce maternal mortality by ¾ by 2015, viz. from $1083/10^5$ live births to $271/10^5$	Unlikely	Ministry lacks an analysis of the causes of maternal mortality, or a specific plan for reducing it. Optimistically projecting recent improvements, the rate is 644 by 2015.
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.

[99] For general information about the MDGs, see see http://www.undp.org/mdg/countryreports.html.

ANNEX II. DATA

Table 38. Functional classification of expenditure (percentage of GDP)

	1998 actual	1999 actual	2000 actual	2001 actual	2002 est.
	- - ***Bolded italics*** *indicate the inclusion of all foreign financing* - -				
	- - romans *indicate possible exclusion of foreign financing* - -				
Total expenditures	***21.0***	***23.8***	***27.5***	***28.3***	***28.2***
General Administration	3.0	4.1	***3.9***	2.2	2.2
Education [a]	2.5	2.9	***5.0***	***4.6***	3.1
Health [b]	***2.4***	***2.8***	***3.5***	3.8	3.7
Agriculture	0.4	0.4	***3.2***	0.3	0.4
Roads [c]	1.9	1.2	***1.6***	1.3	..
Water [b]	..	***0.4***	***0.8***	***0.7***	..
Other including residual [d]	10.7	12.0	***9.5***	15.4	18.8
Total recurrent expenditures	***11.2***	***12.2***	***13.8***	***14.2***	***14.4***
General Administration	2.3	2.6	***2.2***	1.8	1.8
Education [a]	2.0	2.5	***3.2***	***3.0***	2.8
Health [b]	2.1	2.4	***2.8***	3.5	3.5
Agriculture	0.2	0.3	***0.3***	0.2	0.2
Roads [c]	0.7	0.7	***1.0***	0.7	1.4
Water [b]	..	***0.1***	***0.1***	***0.1***	..
Other including residual [d]	3.9	3.7	***4.2***	5.0	6.1
Total investment expenditures	***9.8***	***11.6***	***13.7***	***14.1***	***13.7***
General Administration	0.7	1.5	***1.7***	0.4	0.3
Education [a]	0.5	0.3	***1.8***	***1.7***	0.2
Health [b]	0.4	0.5	***0.6***	0.3	0.3
Agriculture	0.2	0.1	***2.9***	0.1	0.2
Roads [c]	1.1	0.6	***0.7***	0.6	..
Water [b]	..	0.3	***0.7***	0.6	..
Other including residual [e]	6.9	8.2	***5.3***	10.4	12.7
Memo item:					
Total expenditures in Contas Geral do Estado and Relatórios de Execução [e]	13.8	15.6	***28.0***	15.6	16.4

Sources: Conta Geral do Estado for 1998,1999 and 2000; *Relatórios de Excecução* for 2000, 2002 and 2001 (to September, but annualized in the table); water from Finney (2002); roads from Herman (2002); health from HSER (2002), education from e-mail sent by Mafalda Duarte to Alex Valerio on 03/24/03, File Annex "Exec 2001".

Note: Data for General Administration, Education and Agriculture are from the *Contas Gerais do Estado* (CGE) and *Relatórios de Execução* (RE). Data for Education in 2001 include external financing from Mafalda Duarte's e-mail. Data for Roads, Health and Water are from the correspondent sectoral PER papers. Data from CGE excludes most externally financed expenditures, except for the year 2000, which includes it. The *Relatórios de Execução* also exclude most externally financed expenditures. Data for total expenditures, total recurrent expenditures and total investment expenditures correspond to data in the consolidated Central Government accounts as presented in Table 2, "Government finance, 1997-2003 (percentage of GDP)" on page 20. These data includes most externally financed expenditures.

[a] Includes primary, secondary and tertiary education.

[b] Health and Water are the only sectors for which the whole series includes externally financed expenditures.

[c] Between 1998 and 2001, roads includes a small proportion of externally financed expenditure..

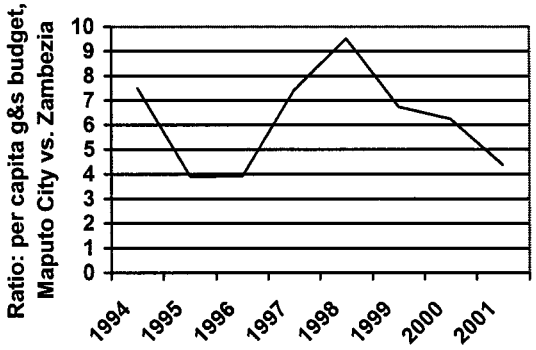
[d] This category is the residual between the total and the sectoral information. It includes missing sectors and non-accounted-for external financing.

[e] The difference between the information in this memo item and the total expenditures is the external financing that is not included in the *Contas Gerais do Estado* and *Relatórios de Execução*.

Table 39. Health sector recurrent expenditures by level of care (percentage)

Level	1982	1989	2001
I and II (health posts / centers)	64	44	42
III and IV (rural / general hospitals)	36	56	58
Total	100	100	100
Sources: World Bank (1992), Table IV.9, p. 105; and Ministério da Saúde (2001b), table 6.			

Figure 7. Inequity in budget allocations across regions[100]



[100] Source: Serviço Nacional de Saúde (1999) and HSRP Indicators (2002).

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