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Republic of Zambia
Public Expenditure Review

(In Two Volumes) Volume I: Executive Summary

December 1, 1992

Country Operations Division
Southern Africa Department
Africa Region

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CURRENCY EQUIVALENTS

Currency	Zambian Kwacha (K)
US$1.00	K300 (as of October . 5, 1992)
K1.00	US$0.003

The following are average annual exchange rates for recent years.

1985	K 1.00	=	US$0.3685
1986	K 1.00	=	US$0.1369
1987	K 1.00	=	US$0.1125
1988	K 1.00	=	US$0.1216
1989	K 1.00	=	US$0.0775
1990	K 1.00	=	US$0.0345
1991	K 1.00	=	US$0.0175

WEIGHTS AND MEASURES

1 Metric Ton (Tonne) = 1000 Kg. or 2,205 pounds

ABBREVIATIONS

BOZ	-	Bank of Zambia
BTT	-	Barter Terms of Trade
CDE	-	Contract Daily Employee
CPI	-	Consumer Price Index
CSO	-	Central Statistical Office
DA	-	Department of Agriculture
DC	-	District Council
DPU	-	Data Processing Unit
DVTCS	-	Dept. of Veterinary and Tsetse Control Services
FNDP	-	Fourth National Development Plan
G&P	-	Grants and Payments
GDI	-	Gross Domestic Investment
GDP	-	Gross Domestic Product
GDS	-	Gross Domestic Savings
GNS	-	Gross National Savings
GRZ	-	Government of the Republic of Zambia
HIID	-	Harvard Institute of International Development
INDECO	-	Industrial Development Corporation
ITT	-	Income Terms of Trade
KUDCEL	-	Kabwe Urban District Council Commercial Enterprises Ltd.
LUDC	-	Lusaka Urban District Council
MOF	-	Ministry of Finance
MOH	-	Ministry of Health
NCDP	-	National Commission for Development Planning

ABBREVIATIONS Cont'd

NCZ	-	National Chemical of Zambia
PACU	-	Provincial Accounting Control Unit
PE	-	Personal Emoluments
PER	-	Public Expenditure Review
PFP	-	Policy Framework Paper
PM	-	Prime Minister
PS	-	Permanent Secretary
PSM	-	Public Sector Management
PSRMR	-	Public Sector Reform Management Review
PSRSG	-	Public Service Reform Steering Group
RDC	-	Recurrent Departmental Charge
SG	-	Steering Group
SIDO	-	Small Industrial Development Organization
VC	-	Vision Consult
UK/ODA	-	U.K. Overseas Development Agency
UNDP	-	United Nations Development Program
UNIP	-	United National Independence Party
ZAC	-	Zambia Airways Corporation
ZCCM	-	Zambia Consolidated Company of Mining Ltd.
ZIMCO	-	Zambia Industry and Mining Corporation
ZSIC	-	Zambia State Insurance Corporation

FISCAL YEAR

Government	--	January 1 - December 31
ZIMCO, ZCCM	--	April 1 - March 31

PREFACE

This report is based on findings of a mission which assisted the Government of Zambia in formulating its FY92 budget between September 15 and October 15, 1991. The mission consisted of the following members and consultants: Chang-po Yang (mission leader), Ladiapo Adamolekun (public sector management), Steen Jorgensen (health and education), Robin Broadfield (energy), Ernst Bolte (mining), Jan Hendrick Van Leeuwen (manufacturing), and Vargha Azad (recurrent expenditures). Analysis of issues in the transport and agriculture sectors were respectively provided by Ian Heggie and Barnabas Zegge. The report benefitted from comments provided by Ataman Aksoy, John Todd (AF6CO) and Kathie Krumm (ECAVP).

The draft of this report was discussed with the Government in April 1992, and in September-October, 1992.

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OVERVIEW AND MAIN RECOMMENDATIONS

1. The central objectives in restructuring public expenditures are to restore economic stability and growth with equity by the use of public expenditure as an effective and efficient policy instrument. The proposed strategy for achieving these objectives include: i) sharp expenditure reductions; ii) significant reallocations to support priority sectors and programs and; iii) strengthening management of public expenditure for effective implementation of the allocative decisions.

2. This report considers it essential to establish a sound macro-economic framework in which both the short-term fiscal stabilization and long-term growth issues can be effectively addressed. In this regard, bringing inflation under control should be considered as a necessary condition for effective adjustment of expenditure composition. Furthermore, public expenditure should be viewed not only as a component of aggregate demand but also as a policy instrument to facilitate supply response. Toward both stabilization and growth objectives, the government needs to shift its own financial position from the current net domestic borrowing to moderate repayment by 1994. More importantly, however, Government needs to adjust its spending priorities to ensure that public infrastructure is being maintained in order to facilitate and support the private sector investment. The objectives of fiscal stabilization and economic growth both require that the size of public expenditures be reduced and the composition shifted.

3. This report considers it imperative for government to take actions on a number of fronts to ensure that the allocative decisions are effectively implemented. First, it is necessary improve the integration between planning and budgeting. In this regard, the current ambiguity surrounding the role of NCDP and its relationship with the Ministry of Finance should be ended, and NCDP's focus should be placed on long-term development and policy planning as well as on analyzing and formulating macro-economic policies. Such focus should help create a sound framework in which budgeting decisions can be properly integrated with development planning.

4. Second, the expenditure audits must be enforced in order to effect expenditure control: controlling officers should be required to reject any requests for expenditures outside voted budget items and beginning with the next report from the Auditor General, the controlling officers found responsible for deviations from the voted budget should be penalized. In addition a system-wide review of equipment needs is required to identify the core constraints in processing and reporting budget information.

5. Third, it is essential to integrate donor counterpart funds in a general budgetary framework to ensure better budget performance. The report recommends that government initiate a study to review the current policies and procedures of each donor regarding use of counterpart funds. On the basis of this study, government may propose measures to harmonize the donor policies and procedures and to integrate the counterpart funds into a common budgetary framework. Finally, in order to cope with uncertainty in revenue and expenditure demand, government may consider setting aside a contingency fund for use against any unexpected event in addition to the formulation of the top priority expenditure programs in each sector.

6. Zambia's public expenditures can be classified by function or by sector. The functional expenditure categories include personal emoluments, recurrent departmental charges, grants and payments, and "other" i.e. primarily military spending which are presented from paras. 7-10. The sectoral expenditure categories are presented from paras. 11-16.

7. **With respect to personal emoluments,** the report endorses the government strategy of quick reduction of employment in the low priority sectors but a relatively more systematic approach to retrenchment in the high priority sectors of government. Given the legal constraint, the report considers it more realistic to achieve staff retrenchment targets through redundancies rather than disciplinary actions. Further, Government may consider outplacement services to assist retrenched employees; such services may include counselling, vocational training and apprenticeship, and assistance for agriculture settlement and smallholder credit schemes.

8. **With respect to grants and payments,** the report considers that an effective incentive structure should be created to guide intergovernmental finance. In particular, an explicit and objective criterion in the allocation of grants should be adopted and fiscal transfers to finance local government employment and deficit spending should be replaced with selective and conditional grants to stimulate spending on development priorities. The current revenue sharing arrangement in sales taxes and beer surcharges should be restructured to encourage tax efforts by urban councils. Government may consider allowing the urban councils to retain a small percentage of the sales tax revenue and the beer surcharges to encourage tax collection efforts.

9. **With respect to the balance between capital and recurrent expenditures,** the report suggests that the current recurrent departmental charges (RDCs) and the backlog from the previous underfunding cannot be met within the RDC budget envisaged in the most recent PFP, and thus there is a need to further increase RDC budgets in the medium term to redress the imbalances. Increased budget allocations for RDCs should support the following priorities: i` in education an increasing share must be spent on primary education, especially on learning materials and maintenance of education facilities; ii) in agriculture an increasing RDC budget is necessary to improve high priority programs such as extension and veterinary services; iii) in transport a significant increase in RDCs needs to be made to provide basic road maintenance so as to avoid the ultimately higher costs in rehabilitation; and iv) in health while further increase in RDC is necessary, the first priority is to improve the expenditure control to ensure that RDC budget is not being diverted to pay for personal emoluments.

10. **With respect to military expenditure,** the report considers it critical to fully evaluate the opportunity cost of military spending at a time when the economy is experiencing severe fiscal restrains. Given the current structure of military expenditure, government should seek to reduce military debt, refrain from spending on new equipment and initiate efforts to downsize the military personnel in line with the reduced military threat in the region.

11. The public expenditures reviewed in this report emphasized the main economic sectors. The expenditure adjustment strategy proposed indicates that by 1994 both health and agriculture expenditures should be increased to near the levels of 1984 and the share of education expenditure should be increased to 17% of the total budget. Expenditures in the infrastructure sectors should also increase both in terms of share and real value. The report shows that these increases could be accommodated by reduction in the non-priority categories and sectors.

12. **With respect to education,** the report recommends: i) an increase in the relative share of primary education by adopting relevant cost recovery measures in post-primary education; ii) the increase in funding for primary education should focus on increases in the provision of materials and the maintenance and upgrading of physical infrastructure; iii) cost-recovery measures for boarding schools must be introduced combined with targeted support for the poor; and iv) management of the sector must be streamlined to lower overhead costs and improve expenditure control.

13. **With respect to health,** the report recommends. i) support must be reallocated from non-technical to professional staff, and any non-productive staff must be reassigned or retrenched; ii) decentralization be preceded or accompanied by effective budget controls at the district government level; iii) a separate health account should be established for each district, and a special grant transferred to this account could then be spent on the priorities within the sector but cannot be transferred to other uses; and iv) drastic measures must be taken to stop the financial drainage caused by UTH -- alternatives such as splitting up the institution, transferring it to non-profit groups, and improving management must be explored soon.

14. **With respect to agriculture,** the report recommends: i) continued efforts to phase out subsidies on production of maize; ii) expenditure priority be shifted from crop and livestock agriculture to fishery and forestry; iii) priority be given to expenditure programs which facilitate technology, extension service and farm credit to the small-holders; iv) imposition and increase of user charges on some of the services especially for services intended for large commercial or corporate farmers, and for agriculture training at the government training institutions; and v) adoption of a budgeting system which closely integrates capital and recurrent budgets.

15. **With respect to roads,** the report recommends a number of measures in order to put the financing of roads on a sustainable long-term basis. The principal measures include increases in revenue mobilization, revision in arrangements for financing maintenance of district roads, and restoration in road maintenance capacity. It is recommended in particular that: i) revenue mobilization should focus on raising vehicle license fees and adding a supplementary fuel charge to the price of transport fuels with part of the revenue from this surcharge earmarked for road construction and maintenance; ii) improvement of management arrangements for road maintenance financing be done by commercializing the Roads Department and turning it into an autonomous Roads Board which would include representatives of the Road Transport Industry, and which could collect its own revenue via international transit fees, vehicle license fees and a specific fuel charge or cause them to be collected by others under a clear agency arrangement and; iii) restoration of road

maintenance capacity should be done by drawing on the skills of the private sector and by way of individual labor sub-contracts, and a road rehabilitation program needs to be prepared to handle the large backlog of road maintenance.

16. **With respect to energy**, the report recommends: i) the government strategy should be focused on measures to ensure a renewable supply of woodfuels on which the majority of the households depend for energy and to address the issue of improving the cost effectiveness in the energy supply; the government expenditures and programs should thus give priority to improving the supply and combustion efficiency of traditional fuels, efficient charcoal production and distribution, and efficient charcoal stoves; ii) the government strategy should address the most efficient use of the sector's limited public investment resources; thus it should emphasize the rehabilitation and maintenance of the existing petroleum, electricity and coal supply systems and the expansion of the power system to serve viable new loads. As recommended above, the pricing of fuel may include a surcharge to raise revenue for road maintenance and construction.

17. This report has examined parastatal operational and investment issues as well. The main recommendations are as follows.

18. **With respect to the manufacturing sector**, there is to be virtually no further public investment. The PER focusses on Government policies, and the report indicates that the continued financial erosion will not only diminish the price which the Government can get for firms to be privatized, but, more importantly, that it is not realistic to expect already troubled firms to retain commercial viability for the lengthy period of time in which the privatization is to take place, unless pricing and dividend policies focus on maintaining the companies as going concerns, albeit as leaner and more efficient entities. Therefore Government should ensure that it achieves the timetable for the process of commercialization of parastatals as well as for the process of privatization. In this regard, the privatization plans should be implemented as quickly as possible. Furthermore, the Government should not let "lack of absorptive capacity" deter sell-off of parastatals if buyers can be identified. A favorable investment climate could attract the repatriation of the Zambian controlled financial holdings abroad. As for the shortage of managerial capability: the gap would remain and the new owners would have to find interim solutions in any case.

19. **With respect to the mining sector**, the report recommends: i) ZCCM adopt the proposed baseline investment scenario in which only the on-going and the most essential new investment projects are to be considered therefore maintaining the size of the three-year investment program at US$ 480 millions and ii) the financing of this investment program could be achieved by adopting effective measures to reduce the size of its employment and the costs of its recurrent operations. ZCCM should give priority to finding private sector partners for major new developments. These developments are urgent if copper output and export earnings are to be maintained. Given the magnitude of new investment needs, the privatization strategy has to be firmed up quickly so that this does not become a hindrance in the financing of the new developments.

20. **With respect to the transport sector**, the report recommends that Zambia Railways should focus on its core business as a freight railway and should terminate its involvement in such non-related business as pre-cast concrete factories, its parcels business

should be expanded only in conjunction with private sector interests, its passenger services should be terminated, or only operated with explicit government grants, and its workshops should be closed -- the overhaul and maintenance of locomotives and rolling stock should be carried out by a third party. Zambia Airways urgently needs to consider cost-cutting measures such as cutting its inter-continental services to Bombay and Mauritias, as well as its services to Gaborone, Windhoek and Entebbe and other low-volume destinations, closing or down-sizing its offices abroad, selling off at least one of ZA's two B737s since all SADCC Airlines are suffering from excess capacity; and other measures to turn its operation into a profitable business activity.

21. **With respect to the energy sector,** the report recommends that ZESCO cannot continue to operate the power system without increased revenue. Tariffs need to be raised immediately and adjusted frequently -- at least every six months -- to allow ZESCO to fully cover its operating and debt servicing costs and to finance the local costs of its priority investment program. An indexed pricing system (related to the exchange rate and official price indices) is essential to take pricing out of the political arena. The report considers the following investment projects as most essential: i) rehabilitation of the Tazama Pipeline to ensure that petroleum supply is reliable and environmentally safe; ii) if a decision is made to continue the refinery in operation (and we do not recommend doing so) efficiency improvement at the Indeni Refinery to reduce energy use; iii) completion of the two ongoing power projects (the Kabwe-Luano interconnection and Kafue training center) as well as; iv) completion of the Lusaka network reinforcement.

REPUBLIC OF ZAMBIA

PUBLIC EXPENDITURE REVIEW

SUMMARY AND RECOMMENDATIONS

I. INTRODUCTION

1. This report summarizes the main issues addressed in the Public Expenditure Review (PER) which was conducted during the second half of 1991 when the budget for FY92 was being formulated.

2. Conducting a PER is particularly important at this time because : i) shifts in the patterns of public expenditure represent one of the most effective techniques a government possesses to improve the conditions of the poor; ii) more efficient use of limited public resources is essential for improving the public services and infrastructure that are needed to promote economic recovery and sustained growth and; iii) improving the budgeting, planning and expenditure procedures is essential to ensure government accountability, and to address the broader governance issues.

3. The central objectives in restructuring public expenditures are to restore economic stability and promote growth with equity. The strategy proposed in this review for achieving these objectives includes: i) sharp expenditure reductions; ii) significant reallocations of budget to priority sectors, subsectors, and priority programs; iii) strengthening the management of public expenditure to ensure effective implementation of the allocative decisions. This expenditure strategy will be supported by the parastatal reform and investment programs which place emphasis on maintenance and rehabilitation to improve capacity utilization; and accelerated privatization and commercialization of parastatals to reduce the fiscal burden on the government budget.

4. Three factors are central to the formulation of this expenditure strategy. First, total spending has to be considerably reduced in line with the fiscal target set forth in the medium-term adjustment program. Second, the most vulnerable group must be protected from the adverse consequences of the adjustment program. Third, because of the widespread under-utilization of productive capacity, maintenance and utilization of the existing capital stock are generally more important than creation of new capacity. These three factors dictate that: i) non-priority expenditures must be reduced not only to meet the stabilization target but also to accommodate increased spending for the poor on essential social and production services (such as primary health and education, extension services and maintenance of feeder road in agriculture); ii) government capital expenditures need to be highly selective focusing mostly on rehabilitation; iii) the non-wage recurrent expenditures should be increased to improve the use and maintenance of existing capacity; and iv) parastatal investment should be undertaken only in the exceptional cases. The expenditure adjustment strategy in tune with these factors will afford Zambia the best opportunity to protect the poor and to revive growth and investment.

5. This summary includes a description of: a) the macro-economic framework for restructuring the public expenditure as given in the recent Policy Framework Paper; b) the process for budgeting, planning and managing public expenditures; c) the policies and allocation issues both across and within sectors; and d) the strategic investment choices available to the major parastatals.

II. MACRO-ECONOMIC FRAMEWORK

6. Background. For many years after independence, the Government of Zambia used its expenditure program as a policy instrument to redistribute the wealth created by the copper industry and to sustain urban consumption instead of developing viable alternatives to the copper sector. The economic deterioration accompanied by the decline in copper receipts did not lead to a fundamental shift in the role of the Government in the economy, nor in the incentive structure or the balance between investment and consumption. Instead, the Government resorted to more external financing to sustain public consumption, more administrative measures to regulate economic activities, and greater parastatal dominance in the economy. As a result, the incentive structure was further distorted, no economic diversification took place, and the economic stagnation continued. These structural impediments constrained the growth of the economy and therefore of the revenue base, which in turn restrained the government's ability to finance expenditure programs essential to economic growth and recovery.

7. Economic Stability and Spending Composition. For Zambia to overcome its structural impediments and bring its economy back on the path of sustained growth, it needs to resolve its persistent fiscal crisis first. Implementation of the fiscal adjustment program has been disappointing in recent years. Overall spending in 1990 exceeded the budget by a large margin primarily because of the 100 to 300 percent increases in housing allowances to the government employees. Fiscal performance was good in the first quarter of 1991, but it went out of control in the second half of the year mostly because of escalating maize subsidies. As a result, the primary deficit in 1991 (excluding grants) which had been targeted at less than 1 percent of GDP is estimated to exceed 7 percent.

8. Without major deficit reductions, it has been difficult to bring inflation under control. The expenditure over-runs undermined the monetary restraint and as a result domestic inflation remained at 100 percent per annum for both 1990 and 1991. Until the election of the new government, there had been little public confidence in the ability and commitment of the government to implement the adjustment program. In fact, public expectation of future price increases had led unions to refuse to lock in longer-term wage agreements with the government. Unless the stabilization measures adopted with the 1992 budget are firmly adhered to, the inflation and wage increase spiral may continue.

9. Persistent and high inflation distorts the composition of public expenditures. Politically sensitive items such as wages in the public sector tend to be fully or at least largely adjusted in line with inflation -- this is particularly so in Zambia because of the strong influence the unions exercise, while the less politically sensitive items such as the non-wage recurrent budget and the development budget are left to be eroded by inflation at least in the short term in order to contain the deficit. The finding of this report shows that while over the longer period between 1976 and 1991, the growth rates for both wage and non-wage recurrent expenditures have lagged behind the general price increases by almost identical 7 percent per annum, over the shorter period of 1989-1991, the government wage bill was fully adjusted in line with inflation while the increase of the nonwage recurrent budget has lagged behind. The evidence shows that in the short-term the balance between wage expenditures and non-wage recurrent expenditures is being biased against the latter.

10. While inflation hits different expenditure items in different ways, the imbalance between wage and non-wage recurrent expenditures resulting from prolonged high inflation in Zambia's case has been most acute. This Public Expenditure Review considers that unless economic

stability is restored, redressing this imbalance will be difficult given the demand for wage increases caused by high inflation. It is essential, therefore, to establish a sound macro-economic framework in which both the short-term fiscal stabilization and long-term growth issues can be effectively addressed. In this regard, public expenditures should be viewed not only as a component of aggregate demand but also as a policy instrument to facilitate a supply response.

11. Medium-term Macroeconomic Framework (1992-94). The Policy Framework Paper (1992-1994) defines the level of public expenditure consistent with the growth target and a viable balance of payments position. The sequential steps to be taken in defining the framework are to identify: i) the targeted balance of payment position; ii) the level of savings and investment required for a targeted GDP growth; iii) the budget deficits (or surplus) consistent with the current account balance and private savings; and iv) the government expenditure level based on the targeted revenue mobilization and the previously defined budget deficit.

12. The on-going decline in copper export revenues and large external debt service burden dominate Zambia's external balance position. Against this backdrop, the government objective of 10-15 percent annual growth for nontraditional export volume will be the minimum required to achieve an annual growth of 2 percent for the total exports of goods and services (including copper) during the medium term. Thus the scope for rapid import growth is limited. All together, the current account deficit (including official transfers) is expected to increase from US$65 million in 1991 to US$374 million or 1.3 percent of GDP in 1992, and to grow only slightly from 1993 to 1994.

Table 1: Macroeconomic Indicators, 1991 - 1994

	1991 Actual	1991 Proj.	1992 Proj.	1993 Proj.	1994
	(in percentage of GDP)				
Central Government					
Revenue and Grants		23.8	25.7	21.0	20.3
Expenditure		30.9	27.7	23.4	21.9
Recurrent		23.6	22.8	18.9	17.0
Capital		7.3	4.9	4.5	4.9
Budget Deficit (accrual)		-7.1	-2.0	-2.4	-1.6
Non-Government/1					
Savings, incl. private transfer		15.1	15.3	14.8	11.9
Investment		6.2	14.6	15.5	15.6
Net private savings		8.9	0.7	-0.7	-3.7
External Accounts					
Current Account Balance		1.8	-1.3	-3.1	-5.3
	(in percentage change)				
Underlying Assumptions					
GDP Growth		-1.8	2.0	3.0	4.0
Export Volume		-17.4	7.6	4.8	3.5
Import Volume		-11.5	11.3	-3.1	1.5

1/ Non-government savings have been adjusted to include estimated private transfers.

Source: "Economic and Financial Framework, 1992 - 1994", GRZ, IMF and World Bank.

13. The PFP stipulates a GDP expansion of 2 percent in 1992, 3 percent in 1993 and 4 percent in 1994 assuming normal rainfall. The current drought will likely cause the 1992 growth to be negative, but most of that shortfall should be recovered in 1993 if normal rainfall resumes. In order to achieve this growth target, it is imperative for government to facilitate: i) a substantial increase in domestic investment from 13 percent of GDP in 1991 to about 20 percent in 1994 accompanied by a major shift in investment composition in favor of unde dings by the private sector; ii) an increased utilization of existing productive capacity; and iii) an improvement in public sector investment efficiency.

14. All these three aspects of government policy are relevant to the public expenditure programs. To support a sustained rise in domestic investment and to increase financial resources to the private sector for investment activities, the government needs to shift its own financial position from substantial net domestic borrowing in 1991 to moderate net repayment by 1994. This will have to be enhanced by effective restructuring of public expenditures to ensure that public infrastructure is being expanded and maintained to support the private sector investment activities. Thus the non-government sector investment is projected to rise from 6.2 percent of GDP in 1991 to 15.6 percent of GDP in 1994 (see Table 1).

15. Sharp deficit reductions and containment of monetary growth are required to achieve stable macroeconomic conditions. The specific fiscal objective within the macroeconomic framework was to achieve a primary deficit in 1992 that could be financed entirely by net foreign assistance. The primary budget balance (excluding grants) was to show a deficit of no more than 2 percent of GDP in 1992 and contained at about that level in 1993 and in 1994. This would be consistent with the objective of maintaining the current account deficit at 1.3 percent of GDP and maintaining the private savings rate at 15.3 percent of GDP in 1992, 15 percent in 1993 and 12 percent 1994 (see the above Table). Net bank financing of the deficit in 1992 will be zero, and the government will make repayments of about 1 percent of GDP in 1993 and 1994.

16. Negative net borrowing on the part of the government will enable the Bank of Zambia to control money supply growth by managing the expansion of the credit to the private sector, the accumulation of foreign exchange reserves, and the volume of debt swaps. PFP targets stipulate a limitation in the growth of the money supply to 25 percent in 1992 (December to December), and a further decline in 1993 and 1994 in line with inflation targets. Effective implementation of the above outlined fiscal and monetary restraints is consistent with the objective to bring down domestic inflation to 45 percent in 1992 (December to December), to 15 percent in 1993, and to 5 percent in 1994.

17. The fiscal objective is to raise the total domestic revenue from under 17 percent of GDP in 1991 to between 18 and 20 percent of GDP in 1994. Achievement of the revenue mobilization will entail a comprehensive reform of both tax and other revenue institutions. Given these revenue projections Government expenditure levels on an accrual basis will have to be contained at 27.7 percent of GDP in 1992, 23.4 percent in 1993 and 21.9 percent in 1994 to be consistent with the fiscal and current account objectives described above.

18. The reduction of total public spending as articulated in the PFP will have to be offset by more efficient use of the relatively smaller envelope of public resources if the provision of essential public goods and services is not to suffer. The improvement in efficiency will require efforts generally on two fronts: first, subsidies (except perhaps those required for the inferior goods) need to be eliminated and military expenditures need to be reduced to allow for reallocation of resources toward higher priorities; and second the process of determining priorities and the procedures for ensuring budget implementation in accordance with the priorities should be strengthened. This PER report as well as the earlier Bank report on "Zambia: Public Sector Management Review" conclude that unless the management of public expenditure is significantly improved, the restructuring of public expenditure as proposed in this report will not actually take place.

III. MANAGEMENT OF PUBLIC EXPENDITURE

19. Budgeting, Planning and Donor Coordination. Although the government has set up sound budgeting procedures aimed at integrating the budget allocations with the policy objectives, in practice such integration has not been carried through. There is a lack of integration of budgeting and planning not only at the macro-level, but also within each ministry. The ambiguity surrounding the role of the other main policy player (i.e. NCDP) and the resulting lack of communication between this agency and the key economic ministries has weakened the budget process. Controlling officers at each ministry do not adequately involve themselves in the budget preparation. Lower-level functionaries are left to assemble most of the items in the budget, and understandably they are unlikely to stamp those budgets with evidence of bold new directions.

20. The implementation of the budget will not be effective unless the counterpart funds generated by external financing are integrated into a common budgetary framework. However, during this PER exercise a full integration has not yet been achieved, in part because of the uncertainty over the size and composition of many aid programs pending the outcome of the October 1991 election. But for the most part, it is due to the earmarking of the counterpart funds which many donors require because of their own priorities as well as their concern over the weak expenditure control.

21. In addition, lack of donor coordination at the sectoral level has resulted in donor funding of capital and import intensive projects without taking into account the recurrent cost implications. In other cases, donors have come directly to the sector ministries with investment projects outside the Public Investment Program and outside the fiscal budget, requiring supplementary budget allocations. Unless such donor efforts at the sector level are integrated within the budget process, the government budget process will continue to remain incomplete.

22. We recommend that Government end the current ambiguity surrounding the role of NCDP in long-term development planning and its relationship to the Ministry of Finance. NCDP's function should be shifted from its current focus on ambitious five-year plans to strategic planning for the public investment program, long-term policy planning in areas such as land and manpower development, analyzing and reviewing macro-economic policy issues. Finally, it is important for government to further pursue the integration of

donor counterpart funds into the budget with a view to harmonizing donor policies and procedures with those of the Zambian government. This may entail initiating a study on the current practices and procedures regarding the use of counterpart fund (by various donor countries), and formulating a Zambian proposal for more flexibility over the use of counterpart funds, if necessary, through harmonizing donor practices and procedures with those of the Government.

23. Expenditure Control. Expenditure control is a critical instrument to ensure that resources are channeled as intended. Expenditure control can be enforced by incentive, by direction, and by consertation. There is, however, plenty of evidence suggesting that expenditure control by direction has not been properly implemented. Unauthorized expenditures have been made, line items have been diverted, and increases in budget allocations have not resulted in increased funding for the intended programs. There are further instances of deliberate bypass of the financial regulations. Large amounts of government funds (allocated for provision of public services) are tied up in below the line accounts such as interests, loans and advances, many of which are not retired or repaid.

24. There is a general shortage of well trained staff at every level of government. Senior and middle-level managers delegate duties to junior staff with little or no training, and then do not adequately supervise, thus in essence, abdicating their responsibilities. The Data Processing Unit (DPU) at the MOF handles the government accounting system. However, the data provided by the DPU are hardly used by the line ministries because the information is not up-to-date and is grossly inaccurate. Data coming from the line ministries are also problematic; for example the Accounting Units at the line ministries often fail to provide DPU with regular and timely information. As a result of the weak information system, the detection of unconstitutional expenditure often comes too late to allow any meaningful penalty.

25. Improving expenditure control will require an integrated approach to overcome short-term constraints as well as to reinforce the technical and administrative capacity over the longer term. Achievement of these goals requires an understanding and consensus among the key budget management officials that the inadequate expenditure control is not simply a matter of a lack of efficient computing equipment, nor of lax discipline over expenditure overruns. Overemphasis on any single aspect of the problem will only result in finger-pointing.

26. The government has announced its intention to strengthen accountability in the management of public expenditures. In particular, the Minister of Finance has issued instructions to the controlling officers that future deviations from the voted budget would be subjected to disciplinary actions. But this alone may not be enough. None of the responsible controlling officers have ever been subjected to disciplinary actions in the past despite the numerous accounts of expenditure anomalies contained in the audit reports. We recommend that the controlling officers be required to reject any requests for expenditures outside the voted budget items; and that beginning with the next report from the auditor general, the controlling officers found responsible for any deviations from the voted budget be penalized. In addition, a system-wide review of the information equipment in the various parts of the government is required to identify the core constraints in processing and reporting budget information.

27. Coping with Uncertainty. Zambia's public expenditure program has to cope with uncertainty in three areas. First, Government revenue from the mining sector has proven to be erratic in the past. Production levels have often been affected by unexpected breakdown of major mining and processing facilities, and repair and maintenance work has been delayed by lack of essential equipment and spare parts. Shipment of copper products to overseas markets and hence copper receipts have at times been reduced or halted altogether due to the condition of roads and railways as well as the labor-management relations. Other factors affecting copper revenue include fluctuation of copper prices as well as unexpected increases in ZCCM's expenditures. Second, some Government expenditures are decided outside the budget process. In the last three years for instance, none of the major wage and benefit increases for government employees had been budgeted for. Extra-budgetary expenditures are made through reduction of budget in other areas, or through supplementary allocations which undermine essential expenditure programs and throw the budget out of balance. Third, the flow of donor funds to finance investment projects and programs as well as the counterpart financing by Government is unpredictable. The wide range of differences in procedures and policies among the donor community is itself a source of uncertainty in the budgeting exercise. In addition, there have been cases where expected donor disbursement has been delayed as a result of government policy slippage or the donor's own procedural bottlenecks, and other cases where unexpected donor financing became available, but came with a requirement for the Zambians to make extra-budgetary allocations. In both cases, it causes revenue and expenditure uncertainty in budgeting and planning.

28. The Government needs to be able to cope with uncertainty in order to effectively manage its public expenditure program. To do this it needs to define a set of core expenditure programs that would be protected from all but the most extreme revenue shortfall. Any expenditures outside the core program would be subject to adjustment if revenues fall short. Furthermore, Government may consider setting aside a contingency fund within each budget against any unexpected events. The size of the contingency fund should be specified in each budget and be subject to the same public scrutiny as other line items. The use of the contingency fund would need to be approved by a majority of Cabinet members as is the practice in some of the industrialized countries.

IV. CROSS-SECTIONAL EXPENDITURE ISSUES

29. This review shows that within the decreasing size of government budget, there has been a steady shift of expenditures from non-wage recurrent expenditures (RDCs) toward expenditures on subsidies and grants and payments and that the balance between capital spending and spending on operation and maintenance has been further distorted. Because of the underfunding of RDCs, and the low performance of the public sector service, capacity utilization of the existing capital stock is low, and provision of essential public goods and services is sub-optimum. The medium-term expenditure adjustment strategy proposed in this report seeks to address these issues. With the tight budget constraint envisaged in the PFP, the Government will have to accommodate any increased budget allocations to the priority areas by eliminating most subsidies; containing the growth of the wage bill and; reducing military expenditures. This expenditure adjustment scenario is specified in table 2: with the reductions on subsidy and military expenditures, the non-wage recurrent and capital expenditures would increase from 33 percent of the total budget in 1991 to 40 percent in 1994, and the imbalance between the two categories would be reduced as well. The proposed shift in expenditure pattern will go a long way toward improving capacity utilization and

delivery of essential public services, thus affording Zambia the best chance for a return to growth and investment.

Table 2: Proposed Government Expenditure Program, 1992 - 1994
(K Million in Constant 1984 Prices)

DISCRETIONARY EXPEND.	1984 Actual		1991 Pre. Est.		1992 Budget	1993 Propose	Proposed	1994
	(k mill.)	%	(k mill.)	%				%
Personal Emoluments	451.0	30.4%	195.0	18.1%	161.1	164.2	167.8	20.1%
R.D.C	219.0	14.7%	140.0	13.0%	122.6	146.0	175.6	21.0%
Grants&Payments/1	105.0	7.1%	86.0	8.0%	66.5	69.3	74.1	8.9%
Capital Expenditure	191.0	12.9%	215.0	20.0%	136.6	149.6	163.9	19.6%
Defense	200.0	13.5%	110.9	10.3%	126.4	65.7	58.5	7.0%
Subsidies	89.0	6.0%	123.7	11.5%	90.7	18.2	0.0	0.0%
Non-discretionary Exp. Pensions*Debt Service	230.0	15.5%	206.4	19.2%	266.1	240.9	195.1	23.4%
TOTAL	1,485.0	100.0%	1,077.0	100.0%	970.0	854.0	835.0	100.0%

1/ Includes Crop Financing in the 1992 Budget.

30. Civil Service Reform. The fiscal and performance issues in civil service reform which relate to personal emoluments have been discussed in detail in the recent Bank report: "Zambia: Public Sector Management Review". The focus in this review is therefore on the program implementation.

31. A specific reduction target of 36,097 employees (or about 25 percent of the total government employment) was adopted between 1979 and 1988, but very little was achieved. The Cabinet Office re-initiated the efforts in August 1990 with the help of a local management consulting firm. This firm has identified 10,105 employees of the central government and district councils who are candidates for dismissal on the grounds of undisciplined and delinquent behavior. Although the Public Service Reform Steering Group (PSRSG) approved the dismissal of the majority of these employees in August 1991, line managers were unable to implement the directive because official documentation was insufficient to level charges. Thus it seems that outright dismissal without benefits is not viable. In order to remove the majority of the 10,105 undisciplined employees expeditiously, this review recommends that the Government should treat these as cases of redundancy instead.

32. A much bigger challenge will be to achieve the retrenchment of the additional 25,992 positions. This PER report endorses a strategy of quick reduction of employment size in the low priority, and a relatively more gradual approach to the retrenchment in the high priority functions and subsectors of the government. Specifically, the PSRSG's main task should be to identify these high priority functions and subsectors whereas the Personnel

Division needs to identify the specific individuals and overlapping positions to be eliminated. The involvement of the top officials in the individual ministries would be required for the timely completion of these tasks.

33. No retrenchment can be effectively carried out unless measures are taken to regulate, and perhaps temporarily halt, recruitment of new personnel until the retrenchment exercise is complete. Also, changes in the remuneration structure mid-way through the retrenchment process are likely to be very disruptive. Within a relatively short span of time, retrenched workers entitled to the same packages could end up receiving significantly different terminal benefits. Therefore, it is recommended that the PSRSG adopt a short-to-medium term remuneration policy for the period when the retrenchment is being implemented and complete the retrenchment exercise as expeditiously as possible.

34. Retrenchment packages generally have to be significantly more attractive than statutory redundancy benefits. Nevertheless, the retrenchment program should yield a strongly positive financial return to the Government in the medium to long-term and it should also enhance the prospects for increased efficiency. The financial return of a retrenchment program may best be measured by (i) the pay-back period for the total program costs; and (ii) the cash savings that could be used to improve the compensation and incentives of those retained in service in order to raise their morale and performance. It is against such criteria that the current proposals for retrenchment packages need to be appraised.

35. In this light the retrenchment package proposed by the PSRSG is less attractive than the one recommended by Vision Consult (VC). While the VC package yields for the retrenches an average of 2.9 times their annual gross earnings, the PSRSG package would provide the retrenches about 5.3 times their annual earnings. The payback period to the Government is about 3 years with the first package, and about 5 years with the second one. This is an extremely generous package. The longer payback period of the second package also reduces the prospects for savings that can be applied to improve the remuneration packages of the retained civil servants.

36. The other main difference between the two retrenchment packages is the house development grant that the PSRSG has recommended. This review finds such housing grants to be costly and inconsistent with the ultimate goal of privatizing the government houses. It is recommended instead that the Government should sell houses occupied by the retrenched workers at market value. Such a scheme would benefit retrenchees who are offered an opportunity to invest their retrenchment and pension lump sum payments and acquire their own residence, as well as the Government which sees its cash outlays and pay-back period substantially reduced.

37. This review supports the government position that alternative employment opportunities should be actively explored through such vehicles as land settlement schemes and village industry services. The Government could follow the example of some other Sub-Saharan African countries and include counselling/information, vocational training and apprenticeship, assistance for agricultural settlement and credit schemes as part of its out-placement and support programs.

38. Intergovernmental Finance. Grants and Payments (G&P) from the central government are intended to support the sub-national governments through financing their recurrent and development operations. The way the central government designs grants and

assigns revenue and expenditure responsibilities have important impact on tax efforts and spending efficiency by sub-national governments. They affect the ability of the central government to manage its own finance as well.

39. The fundamental issue facing Zambia's intergovernmental finance is that local governments have been prevented from balancing their revenues with their expenditures. Local government revenues from fees, charges, etc. and from central government grants have been declining in real terms. Meanwhile local governments have been overburdened by the need to sustain growing payroll expenditures and bankrupted by their own loss-making commercial and industrial ventures. Moreover, the incentive structure of the current revenue sharing and grant allocations programs is such that local governments have no incentive to raise taxes, nor to spend local funds on the national priorities, but a strong incentive to expand employment. Under the circumstances, local governments have increasingly diverted both general grants and decentralized line budget items that they receive from the central government to fund employment and to bail out their commercial and industrial ventures. Indications are that the provision of primary education and health services and the maintenance of roads and other public infrastructure have suffered as a result. In recent years, the central government has attempted to maintain or increase fiscal transfers to the local government, however, the provision of public services continues to deteriorate.

40. It has long been argued that the central government should delegate more fiscal power to the local governments. Given the highly centralized control over charges and fees, this is certainly a necessary adjustment of the central-local government relations. However, effective management of local government finance would require a more comprehensive approach, assigning responsibilities on both revenue and expenditure sides. Specifically, it would require creating incentives for local government tax efforts, setting explicit criteria for inter-governmental transfers, and reforming the design of central government grants.

41. First, the criteria for allocating grants need to be revised and should be based on the revenue potential of each locality. Second, the design of inter-governmental transfers should be consistent with national development priorities. The current fiscal transfers to finance the deficit spending of local governments must be replaced with selective and conditional grants to curb the expansion of wage spending and to stimulate spending on development priorities. For example, a matching grant may be created to stimulate local government spending on road repair and maintenance the economic benefits of which clearly extend beyond the local boundary. The central government could also define minimum standards for such basic social services as primary school education and child immunization and design non-matching conditional grants to help local governments meet these standards. Third, the current revenue sharing in sales taxes and beer surcharges should be restructured to ensure that the urban councils are also rewarded for their tax efforts.

42. Balance between Capital & Recurrent Expenditures. This review analyzed the factors underlying the inadequate funding of non-wage recurrent budget. It estimated sector-based coefficients for the recurrent cost requirement of capital expenditure on the basis of investment project profiles surveyed. These coefficients were then used to estimate the magnitude of the accumulative underfunding of RDCs in each of the major economic sectors during 1981-1991. In total, it appears that there has been a backlog of underfunding of RDCs in the approximate amount of K7.0 billion in 1991 prices. We then applied the weighted average coefficient to assess the recurrent cost implications of the medium-term government

capital budget envisaged in the PFP. On balance, the evidence seem to suggest that the backlog for RDCs may be too large to be absorbed over time in the RDC budget now envisaged in the PFP, and clearly there is a need to further review the size of RDCs in order to accommodate the demand for the recurrent budget.

43. Military Expenditure. A precise estimate of Zambia's military expenditure over time is not possible because until recently information on the defense budget was withheld from the public. The data made available to the Bank mission show that in FY91, about 12.5 percent of the total budget was used for national defense, or approximately 4 percent of GDP. Of the defense budget, 25 percent was used to service the previous military-related debt, 61 percent for personal emoluments, recurrent operation and maintenance. Our estimate of the military expenditure over the last two decades shows that Zambia's military expenditure (as a share of GDP) was somewhat higher than most of the Sub-Sahara African countries, but lower than those involved internal or external military conflicts.

44. A comparison of military expenditures with expenditures on social and public services for the period 1985-1990 also reveals that the government on average spent at least 100 percent more on the military than on education and 200 percent more than on transport, power and energy. At a time when the external military threat has been reduced substantially and the economy is experiencing severe adjustment strains, it is necessary that the level of military spending be contained and reduced. There are a number of measures Government may consider. First, Government should put a cap on expenditures for new military equipment, this cap would effectively keep the capital budget at a minimum. Second, Government may need to initiate discussions with the creditors in an effort to reduce Zambia's obligations under the military debt. Third, reductions of military personnel should be considered in line with the on-going civil service reform program; for this purpose a review of the overall military personnel requirement and options in demobilization may be necessary.

V. SECTOR EXPENDITURE ISSUES

45. This review also shows that between 1984 and 1991, public expenditure a as whole has decreased by about 30 percent, and the share of spending among the core economic sectors (see Table 3) declined from 39 percent in 1984 to 34 percent in 1991. The health and education sectors suffered the largest reductions in their shares by 31 and 50 percent respectively, while spending on defense also decreased.

46. Achievement of the medium-term growth objectives requires that significant reallocations of resources will have to be made to support the high priority sectors critically important for growth and investment. Thus the expenditure adjustment strategy proposed in this review (see Table 3) indicates that by 1994 both health and agriculture expenditures should be restored close to the levels of 1984, and the share of education expenditure should be increased to 17 percent of the total budget. Expenditure in the infrastructure sectors (energy and transport) should also increase both in terms of share and real volume. These increases could be accommodated by reduction of military expenditures, elimination of most subsidies, and reduction of expenditures on the general administration. However, intra-sectoral allocations of public expenditures are also critically important.

47. Over the medium-term, resources for new public investment will be severely scarce, and requirement for maintenance and repair of existing capital stock particularly high given the past neglect. At present, capacity utilization is low throughout the economy due to the lack of spare parts and maintenance along with among other factors. Thus, the immediate priority is not to create new capital stock, but to improve use of the existing capital stock and to prevent further deterioration of the existing capital stock. As the following sections indicate, this is particularly the case with education, road and agriculture sectors.

Table 3: Proposed Government Expenditure Program, 1992 - 1994
(K Million in Constant 1984 Prices)

EXPENDITURE PROGRAM	1984 Actual		1991 Pre. Est.		1992 Budget	1993 Propose	1994 Proposed	
	(k mill.)	%	(k mill.)	%	(k mill.)	(k mill.)	(k mill.)	%
Core Sectors								
Agriculture	117.3	7.9%	76.8	7.1%	63.7	85.4	108.6	13.0%
Health	112.9	7.6%	77.8	7.2%	90.7	102.5	110.0	13.2%
Education	249.5	16.8%	131.2	12.2%	141.5	136.6	142.0	17.0%
Transport/Communication	83.2	5.6%	49.1	4.6%	55.1	42.7	43.8	5.3%
Energy	16.3	1.1%	5.3	0.5%	3.2	6.0	5.8	0.7%
Sub-Total	579.2	39.0%	340.2	31.6%	354.3	373.2	410.2	49.1%
OTHER SECTORS								
Defense	200.5	13.5%	110.9	10.3%	126.4	65.7	58.5	7.0%
Subsidies	89.1	6.0%	123.7	11.5%	90.7	18.2	0.0	0.0%
General Administration	308.9	20.8%	231.4	21.5%	242.0	102.5	100.2	12.0%
All Others	307.4	20.7%	270.8	25.1%	156.6	294.4	266.1	31.9%
Sub-Total	905.9	61.0%	736.8	68.4%	615.7	480.8	424.8	50.9%
TOTAL	1,485.0	100.0%	1,077	100.0%	970.0	854.0	835.0	100.0%

48. Education. Spending levels on education are below those of the other comparable countries and clearly insufficient to meet the goal of education for all subscribed to by Zambia. Moreover, intra-sectoral allocations are inefficient, in-equitable and do not correspond to the Government's stated policies.

49. Studies have shown that the highest return on education investment can be found in primary education and the provision of a basic set of learning materials. Nonetheless, primary education and learning materials have borne the brunt of the reduction in fiscal spending, to a level where the Government spends around one quarter of a US$ per student per year on materials, while parents have to pick up about 80 percent of total primary school financing.

50. The new Government's policy statements have clearly identified the areas for action: increased spending on primary education, especially on materials and other quality improvements. This would translate into the following recommendations for changes in fiscal and donor funding:

(a) Increase allocations to education in real terms up to a level at least comparable to neighboring countries (about 15 percent of total expenditures).

(b) Increase the relative share of primary education, partially by implementation of relevant cost-recovery measures at post-primary levels. This would require a radically different spending trend from the past when primary education spending per student fell by more than three quarters, while post-primary education was relatively protected from falling revenues.

(c) The increase in funding for primary education should focus on increases in the provision of materials and the maintenance and upgrading of physical infrastructure. Spending on educational materials and maintenance has fallen by about 40 and 50 percent respectively over the past decade, so again this would mean a radical departure from the past.

(d) Cost-recovery measures for boarding should be introduced combined with targeted support for the poor. At present boarding costs swallow an ever increasing share of the education budget while benefitting a very small, and most likely the better off, part of the student population. Well-targeted support for students from poor families together with cost-recovery from better-off families would dramatically improve the equity of the system.

(e) Management of the sector must be streamlined to lower overhead costs and improve expenditure control. Reinforced expenditure control is particularly important in the education sector because of the powerful lobbies that may try to curb the reforms outlined under (b) through (d) above. The unification of the two ministries is resulting in some levelling off of administrative costs, but this one-time gain must be accompanied by continued improvements in administrative efficiency in the entire education system.

51. Health. Official health statistics are poor and outdated, the most recent information in some cases being from 1986. Data from 1976 to 1986 indicate that patient visits have been on the increase, as have the incidence of the most important diseases along with case fatality rates (defined as the proportion of people with a particular disease that die from it). The increase in the incidence of important diseases would indicate an increasing demand on the health system at a time of falling funding. The increase in case fatality rates does indicate that with falling funding and increasing demand, the quality of care has suffered. This is probably compounded by the generally poorer health and nutrition condition of the population caused by virtually non-existent preventive health care services and the general fall in incomes.

52. Nonetheless, overall expenditures are at a reasonable level internationally, and important procurement has been protected. This would indicate that inefficiencies in the system are largely to blame for the deteriorating situation. For this reason, the new government has made it one of its top priorities to improve management and efficiency

through manpower development, training, improved budgeting and expenditure control measures, and decentralization. This process deserves the full support of the international community, and several external agencies are indeed involved in these areas.

53. The lack of budget control, especially the control over the recurrent budget is seriously impeding an improved expenditure mix for the health sector. An oversized public employment payroll receives a disproportionate share of expenditures while technical and professional positions are understaffed and underpaid. Support must be reallocated from non-technical to professional staff and any non-productive staff must be reassigned. Spending on maintenance and supplies has also suffered from rising wage expenditure. But under the current lax expenditure control, even a larger budget allocation for such priorities would not ensure that money will actually be spent as budgeted. For instance, it appears that a substantial share of RDCs in the health sectors is being used to pay personal emolument.

54. Decentralization could be further pursued only when serious and effective budget controls are imposed on local governments. A separate health account should be established for each district. A special grant transferred to this account could then be spent according to the district's priorities within the sector, but cannot be transferred to other uses. Under the present system there are constant complaints that provincial and district governments spend the money allocated for the social sectors on other items such as extra administrative staff or "commercial and industrial ventures". A re-centralization would not be the answer as similar charges were levied against the Central Government when the ministries were in complete charge.

55. Drastic measures must be taken to stop the financial drainage caused by UTH. Alternatives such as splitting up the institution, transferring it to private non-profit groups, improving management etc. must be explored soon.

56. Agriculture. Key public expenditure issues facing the sector consist of: (i) diversion of agriculture budget to subsidies; (ii) over- concentration of public expenditures on crop and livestock subsectors, (iv) lack of integration of public expenditure programs with agriculture's strategic priorities; and (v) imbalance between functional expenditures.

57. Agriculture sector's share in public expenditure has been reasonable. However, this share masks the importance of agricultural subsidies in total budgetary allocations to the sector. Excluding subsidies, the sector's net share has been consistently below 7 percent for the last decade except for 1988 and 1991. Thus, the sector's public expenditures are highly distorted by subsidies.

58. The agricultural subsidies have contributed significantly to the country's fiscal imbalances. Elimination of agricultural subsidies would not only substantially reduce fiscal imbalances, it would also free resources for use in priority programs. Furthermore, such reduction would address issues underlying the sector's unsatisfactory growth rate and pattern (e.g. the dominance of maize that has been propelled by subsidies). In itself, elimination of maize-related subsidies is a strategic requirement for complementing the other policy measures (e.g., price decontrol, market liberalization) intended to improve production efficiency and diversification.

59. Government investment program in the agriculture sector has exhibited a pattern of excessive bias in favor of crop and livestock production. At the same time,

forestry, fisheries, and wildlife development are relatively under-funded. These subsectors have equally high growth potential and are vital to agricultural diversification in the long term. Private investment in these subsectors is low in part because of the lack of public infrastructure. Unless more public and private resources are channelled into these subsectors, their growth potential will not be fulfilled.

60. Within the crop subsector, allocation of budgetary resources has also been unbalanced, with over 50 percent of the research and extension resources devoted to maize production alone. This, together with huge amount of maize-related subsidies, have made maize the dominant crop. At the same time, Zambian agriculture's performance and growth have become vulnerably dependent on maize. A better balanced allocation of budgetary resources in the provision of research and extension services among crops is vital to agricultural diversification.

61. This review has shown that both program and functional composition of public expenditures in agriculture do not reflect sectoral objectives and priorities. Increasing farm efficiency and productivity is essential for poverty alleviation and household food security. Achievement of these objectives critically depends on increasing smallholder access to improved agricultural technologies, extension service,and farm credit, as well as to more and better rural infrastructure (especially rural roads and transportation, and markets). Unfortunately, these programs have been persistently under-funded, particularly RDCs that are essential for rehabilitation of these programs, which has compounded the consequences of underfunding in the natural resources subsectors of fisheries, forestry and wild life. Despite the underfunding, Government has continued to implement projects or programs with marginal contribution to agriculture performance. In total there are over 100 ongoing projects of various sizes. Such projects have very low returns to the economy, but exhibit high demand on budgetary resources, absorbing about one third of the total sector budget.

62. This review has found that structural imbalances between capital and RDCs and between personal emoluments and RDCs to be particularly acute (see also para.44). The consequences of underfunding RDCs in the sector are far-reaching. Essential extension services are not provided to smallholder farmers and distribution of essential supplies are hampered by lack of transport facilities. The imbalance between personal emoluments and RDCs also indicates the chronic problem with the public sector i.e. size of government employment has been overly extended with low pay, low moral and low productivity.

63. This review considers it important for both the government and the donor agencies to adopt the following measures to concentrate resources in the priority subsectors (natural resources) and functions (RDCs): (i) eliminating subsidies of maize production and reallocating "freed" funds to recurrent expenditures in priority programs; (ii) eliminating non-priority programs and projects in agriculture; (iii) establishing user charges for certain agricultural services; and (iv) increasing financing of recurrent expenditure by donors.

64. Elimination of subsidies in maize production and reduction of programs and projects of low returns should be the essential parts of expenditure restructuring in order to focus resources on the highest priority programs (e.g. RDCs, farm credit and rural infrastructure) and subsectors (e.g. natural resources). Government reforms in pricing policy and market liberalization now being implemented are necessary complements to the reallocations of budget and subsidy elimination.

65. Increased budget allocations for RDCs is a necessary condition for reactivating public services in the agriculture sector and for maintenance and efficient utilization of the public infrastructure. It is also a necessary condition for inducing more and better coordinated donor assistance including provision of additional recurrent support. The future role of the Bank and other donors should contingent on whether, over time, Government can make the necessary reallocation of its budgetary resources to the priority programs and subsectors. It would not be helpful for aid donors to support capital expenditures without adequately addressing recurrent funding issues.

66. Government should consider imposing or increasing user charges on some of its services, especially for services intended for large commercial or corporate farmers. The Ministry of Agriculture, Food and Fisheries (MAFF) charges a fee on land use planning and surveying services that is nominal and could substantially increased to cover costs. Other areas for user charges include: veterinary services (e.g., cattle dipping, artificial insemination or bull services). User charges should also be introduced for agricultural training at the Natural Resources Development College and other agricultural training institutes.

67. Roads. Government expenditures on roads under the jurisdiction of the Roads Department (RD) cover about 20-40 percent of the requirements for trunk and main roads, and a mere 10-20 percent for district roads. The condition of roads under the jurisdiction of District Councils is no better. Inadequate allocations for road maintenance means that routine maintenance has effectively ceased, vehicle operating costs have risen (some rural roads are becoming impassable), and road rehabilitation has become a substitute for regular road maintenance. One of the main reasons for the shortage of finance is that road users are paying negligible sums for use of the road network. License fees have not kept up with inflation and the excise tax on fuel does not include any explicit user fee.

68. There is a clear need to put the financing of roads on a sustainable long-term basis. The task is to increase revenue mobilization, put in place management arrangements to ensure that the additional funds are used effectively, revise arrangements for financing maintenance of district roads, rebuild the country's road maintenance capacity, and develop an affordable program to rehabilitate high priority roads. Revenue mobilization should focus on raising vehicle license fees and adding a supplementary fuel charge to the price of transport fuels. These charges could be raised gradually over a period of five years and could increase the constant price of gasoline from K86 per liter to K99 and that of diesel from K49 to K59 over the five year period. It has to be clearly understood that this fee is solely for road maintenance and development and is not part of the Government's general funds.

69. Since roads are important national assets (with an estimated replacement cost, assuming 25 percent of their value has been eroded through lack of maintenance, of $2.0 billion) and required road maintenance expenditures are about five times current levels, there is a need to introduce better management arrangements to ensure that roads are effectively managed and the large sums of money involved in maintenance properly accounted for. It is suggested that this be done by commercializing the Roads Department and turning it into an autonomous Roads Board. The Roads Board would be managed by a board including representatives of the road transport industry, would keep commercial accounts, introduce program budgeting systems and charge a clear *price* for roads implemented via international

transit fees, vehicle license fees and a specific fuel charge. The revenue raised through the fuel surcharge may be partially earmarked according a formula agreed between the Roads Board and MOF for funding road maintenance and construction. The road tariff would either be collected by RD or collected on their behalf on an agency basis. In addition these arrangements need to be complemented by revised arrangements for financing maintenance of district roads.

70. Road maintenance capacity also needs to be rebuilt, and this should be done by drawing on the skills of the private sector. Local consultants could be used to do much of the design and supervision work, with local contractors undertaking most road maintenance. In rural areas, it is furthermore suggested that maintenance of gravel and earth roads be undertaken by way of lengthen sub-contractors to help increase rural employment and incomes. RD's role would also change and it would become a more specialized agency with a smaller and better paid staff. They would primarily become planners, facilitators and paymasters. They may also need to retain the capacity to undertake emergency maintenance and some routine maintenance of paved roads. Finally, a road rehabilitation program needs to be prepared to handle the large backlog of road maintenance. The size of the program should depend on the availability of government local currency contributions.

71. Energy. Energy supply has generally been sufficient to support the current level of economic activities. Apart from the outstanding need for a phased and managed elimination of petroleum price fixing, the major remaining issue facing the sector is how to improve cost effectiveness in energy supply and how to most efficiently use the sector's limited investment resources. To address this issue, government expenditure strategy in the energy sector should continue to: (a) ensure a renewable supply of woodfuels on which the majority of households depend for energy; (b) rehabilitate and maintain the existing petroleum, electricity and (if justified) coal supply systems; and (c) selectively expand the power system to carry viable new loads.

72. This review found that the FY92 capital expenditure program for the energy sector is unrealistically high and should be sharply reduced. It consists largely of uneconomic rural electrification projects with high cost and limited benefits. Instead, government resources and efforts should focus on improving the supply and combustion efficiency of traditional fuels. Efforts should be continued to disseminate efficient charcoal stoves and improve the efficiency of charcoal production and distribution. Continued leadership in these programs must be provided by the Department of Energy in the Ministry of Energy and Water Development. This review considers that the budget costs in supporting charcoal use and charcoal production are minimum relative to the huge economic and environmental benefits.

73. In relation to the petroleum sector, we recommend mothballing of the INDENI refinery and conversion of Tazama to a products pipeline. This is a strategic move that would strengthen Zambia's options on sources of supply, would reduce the annual foreign exchange bill for the petroleum sector, and would provide an opportunity for sizeable export earnings. In this situation the energy efficiency measures for INDENI should be deferred until such time as there is a good case for reopening the refinery.

74. A study has been commissioned on the economic viability of Maamba Collieries. We do not wish to prejudge the outcome of this study, and routine renewals of heavy equipment should continue while the study is underway. Nevertheless, it should be recognized that Maamba coal is expensive by international standards and that imports are likely to be more cost-competitive. If use of Maamba coal becomes optional rather than obligatory the overall energy consumption pattern could change.

75. Finally, the Government should prepare and regularly update a National Energy Strategy, which would assess current and future energy needs and outline a program of action to satisfy them at minimum cost. Investment programs for the major energy sub-sectors -- power and petroleum -- should be prepared by the responsible energy corporations and reviewed by and agreed with the Government.

VI. PARASTATAL FINANCIAL AND INVESTMENT ISSUES

76. For the near future, parastatals will continue to be the major source of production and investment. It is therefore imperative to maintain the viability of the parastatal sector and to avoid a total collapse of production. However, this needs to be balanced with the longer-term objective of transferring the ownership of all non-utility and non-strategic parastatals to the private sector. Privatization is now the center-piece of the parastatal reform efforts.

77. Against this background, the investment strategy proposed in this PER emphasizes that: i) in the manufacturing sector new parastatal investments should be avoided in general and undertaken only if they are needed to avoid a total collapse of production; ii) in the mining sector not only an adequate level of investment should be maintained in order to achieve the projected level of mineral production but also high priority should be given to routine and minor replacement investments to avoid loss of production due to the shutdown of operations; this does not, however, extend to major new investments; iii) in the transport sectors new investments would be limited to rehabilitation and maintenance of the existing facilities; and iv) in the energy sector the priority is placed on replacement and maintenance of existing facilities to ensure efficient energy supplies and on conversion of Tazama to a products pipeline. The proposed core parastatal investment program (see Table 4) reflects these considerations, and was prepared during this PER review and agreed with the government and the relevant parastatals. We have not adjusted this table for the Tazama conversion and consequent mothballing of Indeni.

Table 4: Proposed Core Parastatal Investment Program, 1992 - 94

Sector/Project	Proposed Expenditure 1992-94 (US$ million)/a	As % of Total	Import Components 1992-94 ($ million)
Mining (ZCCM)			
Minor and Routine	210.0	30.7%	126.0
Major	270.0	39.5%	162.0
Total	480.0	70.3%	288.0
Manufacturing (INDECO)			
NCZ Rehabilitation	15.2	2.2%	13.2
Others	3.5	0.5%	3.1
Total	18.7	2.7%	16.3
Energy			
TAZAMA pipeline	30.2	4.4%	24.2
Indeni Refinery Rehab.	6.6	1.0%	5.3
Others	66.1	9.7%	52.9
Total	102.9	15.1%	82.3
Transport			
Zambia Railways	72.1	10.5%	63.2
Zambia Airways	9.5	1.4%	7.2
Total	81.6	11.9%	70.4
GRAND TOTAL	683.2	100.0%	457.0

Note: a/ At K100/US$.

78. Manufacturing Sector. The current economic conditions in Zambia pose a complex set of dilemmas for its beleaguered Government: it is faced with an immediate need to raise revenues but at the same time intends to maintain the financial viability of its parastatal firms or even improve their financial performance; curbing the inflation has become the Government's first priority but at the same time it has concluded that parastatal firms should be left free to set their own prices.

79. The Government's need for revenues translates into pressure on the state-owned firms to declare as high a profit as possible and maximize dividend payments to their owner. Continuing financial viability in an inflationary environment would require the same firms to be as conservative as possible in calculating their profits so as to build up reserves for future expenditures and safeguard their liquidity.

80. To curb inflation Government has already been tempted to use its parastatal firms to attempt to break the cycle of cost and price increases. But parastatal firms just like any other enterprise need to find the balance between the price increases that the market will bear and the increases that they need in order to safeguard their profit margins. It is unclear whether recent price roll-backs are justified on cost grounds.

81. In Zambia at the present time these conflicting priorities are brought right into the heart of the parastatal sector's decision making process. Despite that curbing the inflation is the nation's overriding priority, the desire to raise revenues from dividends is in direct conflict with the desire to limit price increases. It should be realized however, that if this process of government imposing mandatory dividends and limiting price increase is allowed to continue even unquestionably viable parastatal firms will be financially exhausted in a matter of a few years. Moreover, the priority medium-term need is for the parastatals to experience the responsibility of determining prices, wages, employment levels etc., and Government and Zimco instructions prevent this learning process.

82. Ordinary shareholders under these circumstances would liquidate their holdings; for the Government this would mean the privatization of the firms it owns. The current privatization program counts on divesting the government holdings over a period of five years. One could question whether any firm which has to declare inflated profits, pay mandatory dividends and operate under non-market determined price ceilings could retain its viability for that long a period of time. In any case, it is likely that this continuing process of financial erosion will diminish the price which the Government can get for such a firm. Therefore this report would recommend the following:

i). Accelerate the Process of Commercialization of Parastatals

Twenty of the Zimco companies are loss making. Five of them are a major problem (the most important being Zambia Airways, Zambia AirCargo and Kafue Textiles. These five need immediate decisions to stem the losses. As to the other fifteen, together with many other semi-commercial operations owned by Government, they need to be put on a commercial footing, the necessary pricing, staffing and cost-cutting measures should quickly be put in place so that subsides on these activities can be cut out and dividends raised.

ii). Stick to the Timetable for the Privatization Process

Zambia's program of divesting all parastatals over five years (excluding the utilities) is one of the fastest anywhere. The wider economic factors would call for further acceleration. Every effort should be put into adhering to the agreed timetable and avoiding slippage. The so-called "lack of absorptive capacity" is most frequently used as an argument against the rapid sell-off of state-owned enterprises. However, there are strong indications that substantial Zambian controlled financial holdings are kept abroad. Current experience in India illustrates how quickly these type of holdings would be repatriated if a more favorable investment climate and the right opportunities present themselves. As for the perceived shortage of managerial capability in Zambia: even five years would not suffice to fill that gap and the new owners would need to find interim solutions in any case.

83. As triple-digit inflation continues in Zambia, there will be a tendency for delays in both the process of commercialization and privatization. After all, commercialization diminishes the Government's influence on parastatal pricing decisions, and

the reluctance to dispose of an asset for fear of underselling it is stronger in periods of price instability. In this light it is all important that the first batch of companies be privatized as scheduled if only to get the process underway and put the various hypotheses for and against privatization to test.

84. In light of the stated policy of retrenchment of parastatal manufacturing activities public investment proposed (see Table 3) in this sector will be limited to projects that involve essential rehabilitation of financially and economically viable units and projects which result in increased operational efficiency of existing investment and whose costs can be recovered before the company is due for privatization.

85. Mining Sector. ZCCM's lead, zinc and copper production declined sharply during the period 1975-85, while cobalt output experienced a substantial increase. In recent years, copper production, which accounts for 80 percent of ZCCM's revenues, declined from about 430,000 tonnes per year to less than 390,000 tonnes in 1991. Despite ZCCM's intention to return to the 450,000 tonnes per year production level during the remainder of this decade, copper production will probably remain closer to 400,000 tonnes level during the next five years. Thereafter, production is projected to decline to about 250,000 tonnes by the year 2000 if no new mining capacity is brought on stream. ZCCM's main constraints to achieving annual production levels of more than 400,000 tonnes of copper are in the mining phase, where ZCCM faces an increasing shortage of fully developed or pre-stripped reserves. Additional constraints are imposed by the wasteful mining methods used by ZCCM. And finally, copper production may also suffer from the serious weakening of the company's technical management in recent years.

86. Zambia's production of lead and zinc has been declining due to resource depletion. The viability of the lead and zinc has become doubtful as annual losses now are about US$10 million on sales of about US$16 million. Early closure is to be expected. Though the current favorable market conditions have benefitted the production of cobalt strongly in recent years, its long-term prospect is limited because cobalt is a by-product of copper and Zambia's copper production will continue to decline.

87. ZCCM's other subsidiary companies are operating in practically all sectors of the Zambian economy. Although ZCCM's subsidiaries overall break-even, an increasing number of companies incur losses and require an injection of funds to remain operational. Furthermore, the poor operational conditions of many subsidiaries divert the attention of ZCCM's management away from the core copper business. All of the non-copper subsidiaries have been identified for divesture in the privatization program.

88. Our review of ZCCM's current investment program reveals a number of problems: (a) the program contains several projects with low priority; (b) the program budgets insufficient funds for investment in and replacement of plant and equipment; (c) while the overall amounts are in line with past investment levels, the program may not be realistic as ZCCM's cash flow situation continues to deteriorate.

89. Given these circumstances, ZCCM should eliminate all low priority projects from its investment program, implement as soon as possible a staff reduction program, and

introduce savings in other operational expenditures. Finally, capital expenditure programs should, where possible, be "stretched out" to facilitate the financing of ZCCM's capital program during FY92/93.

90. This review considered four alternative scenarios for ZCCM's capital expenditure program for the period 1992/93 - 1994/95. As the base-case scenario, Scenario I envisages that ZCCM's current investment program is maintained, with the exception of the new operations center (US$67 million) and the program for the lead/zinc operations at Kabwe (US$13 million). Annual investments would total US$160 million and total expenditures during the three-year period would be US$480 million. Under this scenario the current annual production level of 390,000-405,000 tonnes would be maintained until about 1997. The program would however involve substantial cuts in operational expenditures.

91. This review recommends the investment program envisaged under Scenario I because it would provide the highest probability of maintaining the current production level during the medium term. Whether or not its recommended annual capital expenditure program of US$160 million can be financed depends on the extent to which ZCCM can implement cost reduction measures. At the projected copper price of US$1.05 per pound a reduction of the local wage bill by about 25 percent (implying a reduction of ZCCM staff by 12-14,000) and a reduction of operating expenditures on goods and services by 6-7 percent would generate the funds to finance the program. A fall of copper prices to US$0.90 per pound would require a more drastic cost reduction program, including a reduction in the local wage bill by about one third (reducing ZCCM staff by 17-20,000) and a 20 percent reduction in operational expenditures for goods and services. Staff reductions of this magnitude are feasible (and would improve productivity and efficiency), as indicated by ZCCM's own plans for staff reduction which are in the same order of magnitude. However, a 20 percent reduction in operating expenditures for goods and services would certainly pose a problem and may require the prior analysis of procurement procedures, stock management and operations, as envisaged in the IDA Mining T.A. project.

92. This review concludes that (i) ZCCM should adopt the Scenario I investment program which contains only the on-going and the most essential new projects; (ii) the financing of this investment program can be achieved provided ZCCM improves its cash flow by adopting effective measures to reduce the size of its employment and the costs of its recurrent operations.

93. An "optimal" strategy would involve the closure of all operations with a low rate of return -- in particular the loss-making operations. In addition, all existing excess capacity in processing and refining would be closed down. Such a strategy would permit a reduction in both operating and capital expenditures with only marginal effects on production levels. The strategy would considerably improve ZCCM's cash flow and profitability. However, plant closures of this magnitude (with the exception of the clearly nonviable lead/zinc operation at Kabwe) can only be implemented after careful studies which are being carried out as part of the IDA financed Technical Assistance Program.

94. Zambia's non-metal operations include Maamba's coal mines which also face an uncertain economic future. Inadequate availability of key equipment during most of 1991 has reduced the current year's output to only about 325,000 tonnes. At such a low production level Maamba incurs losses and might lose markets to competing fuels and alternative coal

suppliers. However, in recent years Maamba's coal has been more expensive than imports, and the future of Maamba itself needs careful review and justification.

95. This review has not focussed on the future ownership of ZCCM, yet it must be recognized that major new mining developments are unaffordable as public sector projects. The strategy for ZCCM's privatization is a pre-condition for meaningfully seeking foreign investors to enter into major new mining ventures. As these ventures are urgent if output and foreign exchange earnings are to be maintained, the privatization options deserve to be addressed soon.

96. Transport Sector. Zambia's transport parastatals continue to be excessively dependent on government finance. In FY91 the sector required an infusion of approximately K4,875 million (nearly $100 million) in the form of grants, overdrafts and short-term loans at government-owned banks or commercial banks with government guarantees.

97. The financial performance of Zambia Railways Ltd. (ZR) has deteriorated in recent years and the company reported losses of K440 million in FY91. The actual situation is much worse, since the corporation has not been servicing its debt, assets have not been revalued and depreciation provisions are too small. In 1990/91 ZR required government contributions of K2,347 million. To address its problems ZR has prepared a Ten Year Development Program (TYDP), involving expenditures of over $200 million. The plan is unrealistic and does not face up to the difficult issues which need to be overcome if the corporation is to survive.

98. Only a radical restructuring of ZR's operations may improve its performance. ZR needs to focus on its core business as a freight railway and should terminate its involvement in such non-related businesses as pre-cast concrete factories. The parcels business should only be expanded in conjunction with private sector interests and passenger services, which account for a mere 2.5 percent of total income, should also be restructured, terminated, or only operated with explicit support from a government grant. It is also recommended that ZR get out of the business of operating workshops. Instead, it should arrange to have overhaul and maintenance of locomotives and rolling stock carried out by a third party.

99. The above reforms need to be complemented by strenuous efforts to improve equipment utilization. Better utilization of locomotives would avoid the need for costly hires from South African Transport Services (SATS) and purchase of new locomotives such as those proposed for Canadian supply. Priority sections of track need to be rehabilitated and finally, the TYDP should be dropped and replaced with a more modest and commercially oriented development program. It is recommended that the government's development budget for FY92 only include a provision of K300 million for ZR, followed by provisions of K2,440 million in FY93 and FY94.

100. Zambia Airways (ZA) is in a critical financial condition. It incurred a loss of K2,112 million in 1990/91 and has only managed to keep afloat by running up overdrafts and short-term debts. Short-term debts and overdrafts amounted to K1,384 million ($48 million) in 1990/91. ZA's poor performance has a direct effect on the country's foreign exchange position since ZA uses the IATA Clearing House (effectively underwritten by government) as a means of settling payments for miscellaneous services which amounted to $45 million in 1990/91. The main reasons for ZA's poor performance are its unsuitable route structure, lack

of a cost-effective sales organization, an unprofitable air freight business and low aircraft utilization.

101. Some attempts have already been made to improve performance including the liquidation of the tour company Africa Bound Ltd., the termination of the flights to New York, a reduction in the scope of the air freight business, the closure of some foreign sales offices, and the promotion of pooling arrangements with other regional airlines. To survive, ZA must nevertheless do more. The corporation needs to concentrate on four main cost-cutting measures. First, it needs to review its present route structure and may need to cut its inter-continental services to Bombay and Mauritius. Regional services to Gaborone, Windhoek and Entebbe and other low volume destinations also need to be reassessed. Second, ZA's international sales offices cost far too much and some offices need to be down-sized, or closed. The possibility to market ZA services under an agency agreement with another airline needs to be explored. Fourth, pooling arrangements should be promoted but, since all SADCC airlines are suffering from excess capacity, one of ZA's two B737s should probably be sold. And fifth, ZA should take steps to ensure the profitability of its domestic services, through cost-cutting as well as pricing.

102. Contract Haulage Ltd. (CHL) is in a reasonably good financial health. In 1989/90 it earned net profits of K72 million and earned a rate of return on total assets of 41 percent. As a top performer, CHL is not in need of restructuring.

103. The United Bus Company (UBZ) operates inter-urban and peri-urban bus services. The corporation was restructured in 1988 and a short improvement in performance followed. In 1989/90 performance started to deteriorate again and, in spite of substantial fare increases, the corporation incurred a net loss in 1991/92. UBZ is now in an illiquid position and has been financing fixed asset purchases through a combination of accounts payable and short-term loans. In order to avoid a repetition of the crisis of 1987, UBZ needs urgently to feel the disciplines faced by its private sector competitors. In particular its management needs to increase fleet utilization, hold down operating costs, reduce staffing levels from 12 per vehicle in service to less than 10, reduce accounts payable, and convert its short-term loans into long-term debt (with government guarantees if they cannot be avoided). These actions need to be supported by provision of clear commercial objectives and deregulation of fares. Likewise offers of bilateral assistance should be made to both public and private bus companies on the same basis. Finally, government needs to give serious consideration to diversifying ownership, i.e. implement the decision to privatize, through a management or staff buy-out, or outright sale.

104. In September 1989, the four category I airports (Lusaka, Ndola, Livingstone and Mfuwe) were transferred from the Department of Civil Aviation (DCA) to a newly created National Airports Corporation Ltd. (NACL). Many of the airport facilities taken over were in a deteriorated condition and neither the value of the assets, nor the terms of their transfer, have yet been agreed with the government. In 1990/91 NACL produced net profits of K21 million and earned 5 percent return on total assets. NACL is a relatively well run corporation and there is no need for any major structural reforms. However, it may be worth considering some minor restructuring to transfer ownership of air traffic control equipment back to DCA. DCA could then negotiate a contract with NACC for management of these units. This could make NACL a much smaller corporation like a property development company.

105. The remaining agencies include Engineering Services Corporation Ltd. (ESCO), Mpulungu Harbor Corporation Ltd. (MH), and Zambia National Shipping Company Ltd. (ZNSL). ESCOs financial position is precarious and there are no signs of improvement. It is suggested that the corporation be restructured into separate profit centers, that management concentrate on those which are or could be profitable and closes those which continue to make losses, and that government then privatizes the corporation as a whole or as separate businesses. The time-table for privatization should be no longer than two years. MH is a small harbor and there seems to be no case for spending large sums of public money rehabilitating quays and providing more equipment. It is already in the privatization programma. Finally, ZNSL is currently being liquidated.

106. In FY91 the transport sector's cash shortfall amounted to K4,875 million or 12 percent of total government revenues. The shortfall was mainly attributable to ZA and ZR. The transport sector is now one of the country's main macro-economic problems and the government's stabilization program will not succeed unless it includes actions to reduce the above financial hemorrhage. The impact of the reforms proposed in this report suggest that the sector's overall cash shortfall could be reduced to 6 percent of total current revenues in FY92, 4 percent in FY93 and 1 percent in FY94.

107. Energy Sector. The high cost of the Kafue Gorge restoration project, the devaluation of the Kwacha, and severely inadequate recent tariff increases, meant that ZESCO made a loss of over K300 million in FY89/90 and a further substantial loss in FY90/91. The company cannot continue to operate the power system without increased revenue. Tariffs need to be raised immediately and adjusted frequently -- at least every six months-- in the future to allow ZESCO to fully cover its operating and debt service costs and to finance the local costs of its priority investment program. Zambia should design a system of indexing tariff by reference to exchange rates and published inflation indices, so that routine tariff adjustment can be taken out of the political arena. Moreover, the tariffs need to be restructured so that local industry can benefit from one of Zambia's relative advantages, its substantial low cost hydroelectricity.

108. This investment program has been designed to ensure an improved cost effectiveness in energy supply and includes the following major components: 1) rehabilitation of the Tazama Pipeline to ensure that petroleum supply is reliable and environmentally safe; 2) efficiency improvement at the Indeni Refinery to reduce energy use; 3) completion of the two ongoing power projects (the Kabwe-Luano interconnection and the Kafue Training Center and; 4) Lusaka Network Reinforcement.

109. Recent work has demonstrated that Zambia can improve its security, reduce the cost of petroleum supply and have the potential of significant export earnings if it converts the Tazama pipeline to a products pipeline and mothballs Indeni refinery deferring the energy efficiency improvements. IDA and other financiers are willing to assist in the financing of this conversion, alongside the necessary rehabilitation works.