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Zambia
Financial Performance of the Government-Owned Transport Sector

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Infrastructure Division
Southern Africa Department
Africa Region

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ZAMBIA
CURRENCY EQUIVALENTS

Currency Unit - Zambian Kwacha

Exchange Rates

Year	K per US Dollar
1987	8.9
1988	8.2
1989	12.9
1990	29.0
1991	50.0
1992 (assumed average)	120.0

FISCAL YEARS

Government: January 1 - December 31
Transport Enterprises: April 1 - March 31

ABBREVIATIONS

AJAS	-	African Joint Air Services
BAU	-	Business-As-Usual
BP	-	British Petroleum Ltd.
CHL	-	Contract Haulage Ltd
CSO	-	Central Statistical Office
DC	-	District Councils
DCA	-	Department of Civil Aviation
EEC	-	European Economic Community
ESCO	-	Engineering Services Corporation Ltd
IATA	-	International Air Transport Association
km	-	Kilometer
MC&T	-	Ministry of Communications and Transport
MH	-	Mpulungu Harbor Corporation Ltd
M-Roads	-	Main Roads
MSD	-	Mechanical Services Department
MT	-	Mulungushi Traveller Ltd
NACL	-	National Airports Corporation Ltd
PSO	-	Public Service Obligation
PTA	-	Preferential Trade Area
RD	-	Roads Department
SADCC	-	South African Development Coordination Conference
SATCC	-	Southern Africa Transport & Communications Commission
sq km	-	Square Kilometer
TC	-	Traffic Commissioners
T-Roads	-	International Trunk Roads
TYDP	-	Ten Year Development Plan
UBZ	-	United Bus Company of Zambia Ltd.
UNCTAD	-	U. N. Commission on Trade and Development
ZA	-	Zambia Airways Corporation Ltd.
ZIMCO	-	Zambia Industrial and Mining Corporation
ZIMOIL	-	Zambian National Oil Company
ZNSL	-	Zambia National Shipping Company Ltd.
ZR	-	Zambia Railways Ltd.

FINANCIAL PERFORMANCE OF THE GOVERNMENT-OWNED TRANSPORT SECTOR

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This report is based on the findings of a mission consisting of Ian G. Heggie and Ms. A. Fantaye which visited Zambia in November/December 1991 and presented an initial draft of the report to the government in February, 1992. The text was finalized and formatted by Nellie Sew Kwan Kan and Mary Jackson. The mission would like to thank officials from the Ministry of Finance, Ministry of Communications and Transport, Ministry of Works and Supply, and the individual transport enterprises for their generous help during preparation of the report.

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ANNEXES

EXECUTIVE OVERVIEW

1. The overriding issue arising from the present Transport Sector Public Expenditure Review is the need to reduce the sector's drain on the government's overall fiscal revenues. In FY91 the drain amounted to almost K 5 billion (nearly $100 million), or 12 percent of the government's total current revenues. The drain took the form of injections of cash and/or equity, overdrafts and short-term loans from government-owned banks, or short-term loans from commercial banks with government guarantees. The financial situation is even worse when the decapitalization of roads, due to shortfalls in regular road maintenance, is included.

2. Since the financial drain is largely attributable to Zambia Airways Corporation Ltd. (ZA), Zambia Railways Ltd. (ZR) and the roads sub-sector, these are the areas targeted by the review for immediate reform. First and foremost, ZA needs to revise its route structure (probably by giving up routes to Bombay and Mauritius), consider terminating its air freight business or continue operating it using cheaper aircraft, and extending pooling arrangements with other airlines with a view to disposing of one or both of its two B-737 aircraft. Second, ZR needs to cancel its Ten Year Development Plan and replace it with a smaller and more realistic commercially-oriented one which focusses on its core business as a freight railway. It also needs to improve its accounting system to ensure it provides a true picture of the corporation's financial health. Third, priority actions for roads include increasing road user charges over a period of five years to finance road maintenance (higher vehicle license fees and an additional fuel tax), agreeing on cost-sharing arrangements for maintenance of district roads, sub-contracting most road maintenance to the private sector with maximum involvement of local consultants and contractors, and developing a road rehabilitation program consistent with the availability of government local currency contributions.

3. The report further outlines an agenda for improving the overall financial performance of the sector over the next five years. Although it is difficult to be precise about the impact of the proposed reforms and the speed at which they might be implemented, the program of reforms could reduce the sector's overall cash shortfall to 6 percent of total current revenues by the end of FY92, 4 percent by the end of FY93 and 1 percent by the end of FY94. The program would also ensure that current shortfalls in road maintenance spending were brought into balance within five years. The proposed reforms are listed in a policy matrix attached to this overview. For convenience, the reforms have been given an order of priority and a time-scale. A final column of the matrix also lists actions taken by the government since the mission's first visit to Zambia in November/December 1991.

ZAMBIA

Policy Matrix Showing Actions to be Taken to Restructure Transport Sector Agencies

Policy Issue	Priority	Required Actions	Timing	Status
I. Roads Department:				
Increase User Charges	I	Increase vehicle license fees and introduce an additional fuel surcharge.	Immediate	Some increases in license fees & fuel taxes in FY92 budget
Funding for District Roads	I	Agree cost sharing arrangement and basis for allocation between districts.	Immediate	–
Rebuild Road Maintenance Capacity	I	Announce policy of doing maintenance by sub–contract, using local consultants, local contractors and lengthmen sub–contractors.	Immediate	Agreed in principle
Road Rehabilitation	I	Design program to be consistent with availability of government local currency contributions.	Revised FY92 Budget	Some reductions in RDs rehab program
Commercialize Roads Department	II	Appoint the Roads Board, introduce commercial accounting system, define a clear price for roads and link revenues and expenditures.	FY92 to FY94	To be studied
II. Zambia Railways Ltd:				
Reform Corporate Accounts	I	Account for all loans, revalue assets and revise depreciation.	Revised FY92 accounts	Reform of ZR is being addressed under the Bank's revised Fourth Railways Project
Abandon TYDP	I	Cancel TYDP and replace it with a smaller and more realistic development program.	FY92 to FY93	
Focus on Core Business	I	Dispose of sleeper factory, review passenger services and avoid parcels business (except as junior partner).	FY92 to FY94	
Reform Workshops	I	Withdraw from direct operation of workshops; have overhaul and maintenance done by third party and consider leasing.	FY92 to FY93	
Improve Equipment Utilization	I	Improve locomotive and rolling stock utilization and stop hiring SATS equipment.	FY92 to FY93	
Track Rehabilitation	II	Rehabilitate priority sections of track carrying highest volumes of freight traffic.	FY92 to FY96	
III. Zambia Airways Corporation Ltd:				
Revise Route Structure	I	Probably need to cut routes to Bombay and Mauritius; services to Gaberone, Windhoek and Entebbe need to be reviewed.	Immediate	Some actions already taken
Review Air Freight Business	I	Consider terminating air freight services; if they are continued examine viability of using a second–hand B–707.	Immediate	To be closed
Improve Aircraft Utilization	I	Promote additional pooling with other regional airlines and dispose of one B–737.	Immediate	One or both B–737s to be disposed of
Review AJAS Agreement	II	The timing of AJAS is unfortunate; seek to postpone implementation.	FY92	AJAS to be deferred
Diversify Ownership	III	Sell 10% of the equity to staff to increase incentives; after restructuring consider selling 51% of the equity to a corporate investor.	FY94 to FY95	Short–term restructuring underway; privatization to be studied

Policy Matrix Continued

Policy Issue	Priority	Required Actions	Timing	Status
IV. Contract Haulage Ltd:				
Set Commercial Objectives	I	Make it clear that the corporation is expected to operate on a wholly commercial basis without the need for government support.	Immediate	Agreed in principle
Set Guidelines for Bilateral Aid	I	Ensure bilateral aid is made available as lines of credit which do not discriminate in favor of the public sector.	Immediate	–
Diversify Ownership	II	Invite a staff buy-out and, if that is unsuccessful, consider outright sale.	Late FY92	To be studied
V. United Bus Co. of Zambia Ltd:				
Set Commercial Objectives	I	Make it clear that the corporation is expected to operate on a wholly commercial basis without the need for government support.	Immediate	Agreed in principle
Set Guidelines for Bilateral Aid	I	Ensure bilateral aid is made available as lines of credit which do not discriminate in favor of the public sector.	Immediate	–
Restructure Loans	I	Government to assist (via guarantees) with conversion of short-term loans into long-term ones.	FY92	–
Improve Performance	II	Increase fleet utilization, hold down costs, reduce staff, increase vehicle utilization and reduce accounts payable.	FY92 to FY93	–
Reform Workshops	III	Dispose of workshops and have maintenance done by a third party; consider leasing.	FY92 to FY94	–
Deregulate Fares	III	Remove all fare regulations and concentrate on regulating safety, quality and reliability.	FY92 to FY94	To be studied
Diversify Ownership	III	When performance has improved, invite a staff buy-out and, if that does not succeed, consider outright sale.	FY93 to FY94	To be studied
VI. Urban Bus Operations:				
Revise Regulatory Framework	II	Revise regulations to emphasize safety, regularity and reliability of service.	FY93 to FY94	To be studied
Introduce PSO Grants	III	In conjunction with urban district councils, introduce grants to cover the costs of public service obligations (e.g., concessionary fares, network extensions, etc.).	FY93 to FY94	–
VII. National Airports Corporation Ltd:				
Transfer Fixed Assets	I	Formalize transfer of fixed assets and agree on procedures for dealing with rehabilitation of airports.	FY92 to FY93	–
Diversify Revenue Base	I	Seek other sources of revenue from concessions, property rentals, car parking, etc.	FY92 to FY93	–

Policy Matrix Continued

Policy Issue	Priority	Required Actions	Timing	Status
Airport Police	III	Charge the costs of police at NACL airports aginst the corporation.	FY93	–
Meteorological Charges	III	Charge up to 10% of the costs of the meteorological department against NACL to be recovered from users through air navigation charges.	FY93	–
Diversify Ownership	III	Diversification of ownership is only feasible if runways and navaids are transferred to DCA; sell 10 % of shares to staff to strengthen incentives	FY93	To be studied
VIII. Department of Civil Aviation:				
Raise User Charges	I	Raise landing fees to an average of $40 per user and express it in foreign exchange; raise the passenger service departure fee to K200.	Revised FY92 Budget	–
Commercialize Airports	II	Turn airports into a separate unit within MC&T accounting for its activities along regular commercial lines.	FY93	Decision deferred
Development Plan	III	Continue with present development plan and revise it once the AfDB study is complete.	FY93 to FY94	Agreed
Diversify Ownership	III	Consider whether some airfields could be transferred to district councils and whether some (e.g., Southdowns) should be transferred to NACL, or private operators.	FY93 to FY94	–
IX. Engineering Services Corporation Ltd:				
Restructure Operations	I	Re-organize the corporation into separate business centers, build up those which are profitable and close those which make losses.	FY92	Agreed in principle
Diversify Ownership	II	Invite a staff buy-out of individual business centers, or of the business as a whole; failing that, sell the entire business, or liquidate it.	FY92 to FY93	To be studied
X. Mpulungu Harbor Corporation Ltd:				
Straighten Out Accounts	II	Agree on the value of the assets, provide for depreciation and reduce accounts receivable.	FY92	–
Diversify Ownership	II	Operate the port under a management contract, under a concession agreement, or sell the entire port to a private sector operator.	FY92 to FY93	Offers from the private sector being considered
XI. Zambia National Shipping Company Ltd:				
Finalize Liquidation	I	Wind up corporation and only settle guaranteed debts.	FY92	Agreed

EXECUTIVE SUMMARY

1. Zambia is land-locked and depends significantly on road and rail transit routes through Tanzania, South Africa, Zaire, Mozambique and Angola. The Ministry of Communications and Transport is responsible for overall transport policy and for supervision of transport enterprises. The road sector suffers from a number of systemic weaknesses which hamper effective performance. It suffers from lack of clear lines of responsibility, weak institutional structures and under-funding. Some transport enterprises are operated as joint ventures with the governments of Tanzania and (in the case of air services) Uganda. Joint ownership adds to the complexity of management. The remaining transport enterprises are operated under the jurisdiction of Zambia Industrial and Mining Corporation (Zimco), which acts as a holding company on behalf of the government. Zimco has not provided effective leadership and many of the enterprises under its jurisdiction are in a critical financial condition. Apart from the trucking industry, these enterprises are also affected by an unfriendly regulatory environment and by well-intentioned donor support which has inadvertently weakened competitive pressures. Once existing and proposed studies of the transport sector have been completed, it would be desirable to prepare a transport sector strategy document to guide long-term development of the sector.

2. The public expenditure review takes it for granted that government-owned transport agencies should be able to operate commercially without the need for financial support from government, other than to meet a clearly agreed public service obligation (PSO). A quick review of the financial health of the transport sector in Zambia shows this to be far from the case. In FY91 the sector imposed a financial burden of about K 4,875 million (nearly $100 million) on the government in the form of grants and overdrafts and short-term loans at government-owned banks or commercial banks with government guarantees. This report examines the reasons for this poor financial performance and suggests ways of improving it.

3. Three agencies account for most of the sector's financial problems: roads, railways and the airline. Road expenditures are well below the levels needed to maintain the road network in a stable long-term condition. Current spending levels on roads under the jurisdiction of the Roads Department (RD) cover 20 to 40 percent of requirements for trunk and main roads (7,087 km), and a mere 10 to 20 percent for district roads (13,696 km). The condition of roads under the jurisdiction of District Councils (15,980 km) is no better. Inadequate allocations for road maintenance means that routine maintenance has effectively ceased, vehicle operating costs have risen, rural roads become impassable during the rainy season, road rehabilitation has become a substitute for regular road maintenance and low maintenance expenditures have destroyed RD's capacity to undertake 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 fuel only bears a standard excise tax (i.e., no explicit user fee is added to the price of fuel).

4. 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 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. Improved revenue mobilization should focus on raising vehicle license fees and adding a supplementary fuel charge to the tax on transport fuels. These charges could be raised gradually over a period of five years. By FY96, the proposed increases would have raised average license fees to K 9,000 for cars ($75), K 36,000 for buses ($300) and K 60,000 for trucks ($500), all at FY92 prices. The fuel charge would likewise have raised the

price of premium gasoline from K 86 per liter to K 99 ($0.83) and that of diesel from K 49 per liter to K 59 ($0.49).

5. Roads are important national assets with an estimated replacement cost, less the backlog of deferred maintenance, of $1.95 billion. Of this, $1.46 billion are managed by RD, while the remaining $0.49 billion are managed by the 57 urban and rural DCs. Since these assets need to be well-managed to ensure they produce value-for-money, and required road maintenance expenditures are three to five times current levels, there is a need to introduce better management arrangements to ensure the large sums of money which need to be spent on road maintenance are properly accounted for. It is suggested this be done by commercializing RD and turning it into an autonomous Roads Board. The Board's executive committee would include representatives of the road transport industry, and the Board would be expected to 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 road tariff would either be collected by RD or collected by British Petroleum (BP) and Zimoil on an agency basis. These arrangements need to be complemented by revised arrangements for financing maintenance of district roads. District Councils have a narrow tax base and it is suggested that block grants be introduced to support maintenance of district roads. The block grants would be financed from the overall fuel charge and allocated in a way which encouraged local tax effort and compensated for variations in the DCs ability to pay.

6. Road maintenance capacity also needs to be rebuilt and it is suggested this be done by involving the private sector. Local consultants could be used for design and supervision of work, with local contractors undertaking most road maintenance. In rural areas, it is furthermore suggested that maintenance of gravel and earth roads be undertaken using lengthmen sub-contractors to help increase rural employment. 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 road 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 which now needs to be made good. The size of the program should be determined to suit the availability of government local currency contributions. Under the above financing program a rehabilitation program of between K 2,000 million and K 2,500 million per year would be affordable.

7. The financial performance of Zambia Railways Ltd. (ZR) has deteriorated in recent years and reported losses in 1990/91 reached K 440 million ($15 million). The actual bottom line is much worse, since the corporation has not been servicing its debt, assets have not been revalued and depreciation provisions are too small. In spite of creative accounting, ZR required government grants and equity contributions of K 2,347 million ($81 million) in 1990/91 to rebuild working capital. To address these problems ZR prepared a Ten Year Development Plan (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.

8. The performance of ZR is only likely to improve if it is radically restructured. One of the first tasks should be to straighten out the corporation's accounts to ensure they present a true picture of its overall financial health. ZR also needs to focus on its core business as a freight railway and should stop operating pre-cast concrete factories, attempting to open quarries and should only develop the parcels business in conjunction with private sector interests. Passenger services, which account for a mere 2.5 percent of total income, should also be restructured,

terminated (including closure of the Mulobezi line), or operated with explicit support from a PSO grant. The operation of workshops is another area in need of reform. The report recommends 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 (based either on privatization of existing workshops or leasing equipment directly from a third party).

9. The above reforms need to be complemented by strenuous efforts to improve utilization of equipment. Better utilization of locomotives would avoid the need for costly hires from Spoornet and purchase of Canadian locomotives. The contract for purchase of these locomotives should be scaled down, or canceled. Priority sections of track also need to be rehabilitated and should concentrate on relieving restrictions on sections of track carrying the highest volumes of traffic. Construction of the new Chipata-Mchinji line to Malawi should be cancelled or postponed. Finally, the TYDP should be dropped and replaced by a more modest and commercially-oriented development program. It is recommended that the government's development budget for FY92 only include a provision of K 300 million for ZR, followed by provisions of K 2,440 million in FY93 and FY94.

10. Zambia Airways Corporation Ltd. (ZA) is in a critical financial condition. It incurred a loss of K 2,112 million ($73 million) in 1990/91 and has only managed to keep afloat by running up overdrafts and short-term debts. Overdrafts and short-term debts reached a total of K 1,384 million ($48 million) in 1990/91. ZA's poor performance furthermore 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. The payment for miscellaneous services amounted to $45 million in 1990/91, out of a total net payment of $53.2 million. The main reasons for poor performance are an unsuitable route structure, lack of a cost-effective sales organization, an unprofitable air freight business and low aircraft utilization (the two B-737s only flying for 2.5 hrs per day).

11. Some attempts have already been made to improve performance and have focussed on liquidating Africa Bound Ltd. (a tour company), terminating flights to New York, reducing the scope of the air freight business, closing foreign sales offices and promoting pooling arrangements with other regional airlines. To survive, ZA must nevertheless do more. The corporation needs to concentrate on five main cost-cutting measures. First, it needs to take a hard look at the present route structure and may need to cut its inter-continental services to Bombay and Mauritius. Regional services to Gaborone, Windhoek and Entebbe also need to be reviewed. Second, ZA's international sales offices (which absorb about 30 percent of sales revenues) cost far too much and some offices need to be down-sized, or closed. In 1990/91 the London sales office lost over $7 million and it may be desirable to market ZA services under an agency agreement with another airline. Third, ZA's air freight services have been affected by structural changes in the international freight market and may have to be terminated, or continued using a cheaper aircraft.

12. Fourth, pooling arrangements should be promoted but, since all SADCC airlines are suffering from excess capacity, one or both of ZA's two B-737s should be sold. Finally, ZA needs to explore every opportunity for improving crew utilization, cutting staffing and victualling costs, and generally improving operational performance. The serious financial state of the airline also raises questions about the timing of the Africa Joint Air Services (AJAS) agreement. Such ventures are normally only attempted by airlines in sound financial health. Implementation of the AJAS agreement should therefore be deferred. In spite of current problems, it should be possible to turn the airline around. In the medium term, the emphasis should be on encouraging

the airline to operate in a more commercial way and, once that had been achieved, to consider privatization, provided a suitable buyer can be found. The only qualification is that no corporate investor is likely to be willing to invest in ZA for less than 51 percent of the voting shares.

13. Contract Haulage Ltd. (CHL) is in reasonable financial health and is the most consistently good performer. In 1989/90 it earned net profits of K 72 million ($5.6 million) and earned a rate of return on total assets of 41 percent. As a top performer, CHL is not in need of restructuring. Whatever steps are needed to improve performance are under the control of management and they should be encouraged to address these problems without government involvement. Road haulage does not have to be in the public domain and government should start considering the long-term future of CHL. There is no case for infusions of public funds and offers of dedicated bilateral aid should be resisted in favor of general support to the road haulage industry (preferably in the form of lines of credit). CHL should be a key target for diversification of ownership. Government should set clear commercial targets and announce its intention to diversify ownership of the corporation. Within six months the government should invite bids from existing management and staff and, if that does not succeed, should explore other ways of diversifying ownership through outright sale, or sale of shares.

14. The United Bus Company of Zambia Ltd. (UBZ) operates inter-urban and peri-urban bus services. The corporation was restructured in 1988 and performance thereafter improved. However, in 1989/90 performance started to decline and, in spite of substantial fare increases, it incurred a net loss in 1991/92. The corporation is now in an illiquid position and has been financing fixed assets through a combination of accounts payable and short-term loans. UBZ management needs to make strenuous efforts to improve financial performance to ensure it does not repeat the crisis which affected it in 1987. It needs to increase fleet utilization, hold down operating costs, reduce staffing levels from 12 per vehicle in service to less than 10, increase vehicle utilization, reduce accounts payable and should convert its short-term loans into long-term debt (perhaps with government guarantees). These actions need to be supported by provision of clear commercial objectives and complete deregulation of fares. Offers of bilateral assistance should likewise be made to both public and private bus companies on the same basis. Finally, government needs to give serious consideration to diversifying ownership through a management or staff buy-out, or outright sale.

15. Urban bus services are provided almost entirely by the private sector and government is mindful of the need to ensure they are operated reliably. Most current problems are caused by the rigid and outdated regulatory framework. These need to be relaxed to encourage provision of a wider and more diverse range of urban bus services. It would be unwise for government to become involved in the provision and operation of urban services and it should confine itself to being the regulator and facilitator of such services. The regulatory role should be confined to ensuring safety and reliability of service, while the facilitating role should be confined to financing (in conjunction with urban District Councils) incremental improvements to existing private bus services. These improvements should be financed through provision of explicit PSO grants provided to support services provided on a contractual basis.

16. 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. NACL keeps good accounts and is reasonably well managed. In 1990/91 it produced net profits of K 21 million ($1 million) and earned 5 percent return on total assets.

Revenues consisted almost entirely of aircraft and passenger fees. The NACL tariff is relatively high, although they are broadly in line with charges in neighboring countries like Zaire, Angola and Mozambique.

17. 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 runways and air traffic control equipment back to DCA. DCA could then negotiate a contract with NACL for management of these assets. This would make NACL a much smaller corporation operating more like a property development company. In this form, ownership of the corporation could probably be diversified. The corporation would then focus on management and development of airport land and terminals, and would also manage runways and navigational aids on behalf of DCA. Several other steps could also be taken to improve performance, since a 5 percent return on total assets is too low to generate sufficient revenues to operate on a sustainable basis. There are six issues which need to be addressed. First, the value of the fixed assets need to be agreed and so do their terms of transfer. Second, arrangements need to be agreed for rehabilitating these assets. It would be unreasonable to saddle the corporation with the costs of making good past neglect by DCA and it is suggested that government act as broker in trying to arrange grants and soft loans to finance the required rehabilitation. Third, NACL needs to diversify its revenue base by increasing earnings from concessions, rentals and parking charges. Fourth, the costs of the airport police (currently carried on the Police Department vote) should be charged to NACL. Fifth, operating costs need to be reduced and staff incentives improved (possibly by selling 10 percent of the equity to staff, or issuing it in the form of bonuses). Finally, government should consider charging 10 percent of the meteorological department costs against NACL. The corporation could then recover these costs from users by adding them to the air navigation charges.

18. DCA regulates all civil aviation services and is responsible for operating the country's 40 category II and III airports. DCA levies landing charges at category II airports and collects passenger service departure fees. Airfield revenues during FY90 were K 1.7 million, while expenditures were K 46.7 million leaving a shortfall of K 45 million. Current landing fees are negligible. During FY90 the average landing fee was K 55 (about $1.90) for a 10 tonne aircraft. These fees need to be raised by a factor of at least 12 to reinstate their 1987 values. The passenger service departure fee is K 80 compared to a domestic departure fee of K 200 at NACL airports. There is no systematic method of accounting for invoices issued, bills paid and delinquent accounts. A quick check suggests that revenue evasion and leakage are not a problem.

19. To improve financial performance and reduce the burden on the government's recurrent budget, it would be desirable to commercialize all category II airports and account for them as a separate commercial entity within the Ministry of Communications and Transport. Commercialization should be accompanied by an increase in fees. The average landing fee should be raised to $40 (and expressed on foreign exchange) and the passenger service departure fee should be raised to K 200. This would increase revenues to K 19.5 million in FY92. Other reforms should concentrate on examining the feasibility of transferring management of selected airports (e.g., Southdowns) to District Councils, or transferring them to NACL or private sector operators. With revised charges and improved management, Southdowns airport could probably be managed profitably. Allocations in the development budget appear reasonable, but should be reviewed once the ongoing airport study being financed by the African Development Bank has been completed.

20. The remaining transport agencies covered in this report 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 things getting better. It is suggested that the corporation be restructured into separate business centers, that management concentrate on those which are profitable (or could be made so) and closes those which continue to make losses, and that government then privatizes the corporation as a whole or as separate business centers. 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 suggested that the government consider partial or complete privatization of the port. Finally, ZNSL is currently being liquidated and it appears that government has made a wise decision. The company is likely to end up with large debts and it is recommended that government only meets losses covered by government guarantee.

21. In FY91 the transport sector's cash shortfall amounted to K 4,875 million (nearly $100 million), or 12 percent of the government's total current revenues. When decapitalization of roads due to inadequate maintenance are included (to reflect the sector's long-term expenditure requirements) the overall shortfall amounted to K 6,304 million ($126 million), or 15 percent of the government's total current revenues. The shortfall was mainly attributable to ZA and ZR. These figures emphasize the urgent need to restructure selected transport agencies. The transport sector is now one of the country's main macro-economic problems and the government's stabilization program will only succeed if it includes actions to reduce the above financial losses. 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, through 4 percent in FY93 to 1 percent in FY94. When road maintenance shortfalls are included, the percentages amount to 11, 7 and 3 percent respectively. In other words, within three to five years, the transport sector could again be brought into balance with all road maintenance expenditures fully funded.

22. The government-owned transport sector accounts for 9.3 percent of the government's long-term external indebtedness and for 11.1 percent of project-related long-term debt. For a revenue-earning sector this is probably too high and more effort should be made to strengthen internal financing and domestic borrowing. External debts are mainly attributable to railways (the Tanzam railway being a large borrower), roads and air transport. The road sector has also benefitted from a large number of donor grants. Since these three agencies account for most of the sector's financial problems, the loans (and the covenants usually attached to them) have not been effective. Roads face a two-fold problem. First, donor-financed rehabilitation has become a substitute for regular road maintenance and, since much of the rehabilitation is being financed on a grant basis, there has been little need to raise road user charges. It might have been better to use the leverage of grant-financing to promote improved performance of railways and air transport, and to require roads to mobilize more of their own revenues by raising road user charges.

I. INTRODUCTION

1 Zambia is land-locked with a surface area of about 750,000 sq km and a population of just under 8 million. The economy is dominated by the mining industry which is heavily dependent on external trade. The transport network comprises five distinct modes of transport: rail, road, civil aviation, inland water transport and pipeline. Rail and road are the most important modes, while air transport is significant for passenger traffic. The main transit routes rely on shipments through ports in Tanzania, South Africa, Zaire, Mozambique and Angola. Most external traffic is carried by rail, although road transport is becoming increasingly important. The railways concentrate on bulk traffic (coal, minerals and agricultural products), while road transport handles most intermediate and consumer goods.

2 The Ministry of Communications and Transport (MC&T) is responsible for overall transport policy and for supervision of transport enterprises. There is a small Planning Unit within MC&T which helps with this task. Operation and maintenance of main roads is under the jurisdiction of the Roads Department (RD) in the Ministry of Works and Supply (MWS), while other roads are under the jurisdiction of 9 urban and 48 rural District Councils (DCs), presently under the Ministry of Local Government and Housing. Two transport enterprises are operated as joint ventures between the governments of Zambia and Tanzania. They include the Tanzania Zambia Railways Authority (Tazara) and Tazama Pipelines Ltd. (67 percent of which is owned by Zambia). A third joint venture, Africa Joint Air Services Ltd (AJAS), was also established to operate joint air services on behalf of Zambia, Tanzania and Uganda, although financing for this activity has been drastically reduced. Most other transport enterprises are operated under the jurisdiction of Zambia Industrial and Mining Corporation (Zimco), which acts as a holding company on behalf of the government. Traditionally, Zimco has chaired the Boards of these enterprises, set overall management policies and guided their long-term development. However, Zimco's role will soon diminish, since it is in the process of being restructured into an investment holding company providing a non-executive chairman and financial controls.

3 The road sector suffers from a number of systemic weaknesses which hamper effective performance. Uncertain lines of responsibility, weak institutional structures and under-funding are perennial problems. DCs are unsure which roads are their responsibility and the legislative arrangements for financing maintenance of DC roads (which empower the Transport Minister to make grants and require owners of adjoining property to contribute to maintenance) are not being used. DCs are furthermore mostly too small to support an effective road maintenance organization. It would be better to group DCs into larger units and designate highway authorities responsible for a larger and more viable road network. Under-funding is also pervasive and affects both main and DC roads. There is now a substantial backlog of deferred maintenance.

4 It has proved difficult to operate the joint ventures on a commercial basis (Tazara, Tazama and AJAS). Joint ownership makes co-ordination and management difficult, and turns simple managerial decisions into elaborate exercises in international relations. Tazara is the largest joint venture. It mainly serves Zambian transit traffic, although it is increasingly carrying local traffic in the southern part of Tanzania. The performance of Tazara, in terms of freight transported, improved significantly in 1987 and 1988 in spite of serious constraints on the availability of its locomotive fleet. However, a serious deterioration was noted in 1989 due to numerous accidents caused by relaxed operational practices. Cost recovery is poor and Tazara has been unable to meet its debt-service obligations and this has led to a restructuring of its capital. The government is currently exploring options for creating a separate management company to deal with Tazara's operations within Zambia.

5 The enterprises under the jurisdiction of Zimco suffer from a number of problems. Zimco has not provided effective leadership and many of the transport enterprises are in a critical financial condition. Asset utilization is low, financial oversight is weak and little attempt has been made to instil a sound commercial outlook, or to restructure the enterprises to improve performance. These disadvantages have been exacerbated by an unfriendly regulatory environment and by well-intentioned donor support which has inadvertently weakened competitive pressures. Public transport has been particularly affected. The regulatory framework imposes entry restrictions on urban bus operations, requires standardization of fares (hence preventing any form of service differentiation, including operation of scheduled services) and even requires all private vehicles to be painted green and white. Donor assistance — which has provided privileged access to foreign exchange for purchase of vehicles and spare parts, and has provided generous technical assistance — has helped public transport operators, but has done so at the expense of the private sector which has to survive without such assistance. The trucking industry is one of the few areas which does not suffer serious regulatory constraints. Entry and tariffs are effectively deregulated and there are nearly 1,000 trucks offering domestic haulage services (only 206 being government owned), supplemented by an estimated 1,600 foreign trucks offering international services to, from and through Zambia.

6 The unfriendly regulatory framework and the lack of clear policy directions emphasize the need to prepare a consistent sector strategy to guide future development of the sector. The proposed Infrastructure Engineering Credit, being prepared for possible inclusion in the Bank's FY93 operational program, would finance a series of detailed studies covering national transport policies, operation and maintenance of roads, management of government plant and equipment, and the potential for developing the local construction industry. Once these studies have been completed, they could be used as the basis for preparing a clear sector strategy to guide future development of the transport sector.

II. PUBLIC EXPENDITURE REVIEW

7 This review examines the financial performance of the government-owned transport sector in Zambia and was undertaken as part of a national Public Expenditure Review (PER). The objective was to: (i) review the financial performance of each government-owned transport agency; (ii) identify the net impact of the sector on the government's overall fiscal balance; (iii) examine the scope for improving financial performance by increasing private sector involvement; (iv) review methods of financing roads and examine ways of placing such financing on a sound long-term basis; and (v) consider all other ways of strengthening financial performance.

8 The review took for granted that: (i) government-owned transport agencies should be able to operate commercially without the need for net financial transfers from government; (ii) in principle, these agencies should make a net contribution to overall government revenues in the form of corporate taxes, profits (on government equity) and surpluses of government departments; (iii) government regulation should focus on safety, quality and reliability of service leaving the remaining service characteristics to be determined by the market place; and (iv) when government wishes transport agencies to undertake social service obligations, it should do so under transparent arrangements which compensate transport agencies for the financial costs of meeting these obligations.

9 A quick review reveals a sector in poor financial health. In FY91 it imposed a financial burden of about K 4,875 million ($98 million) on government in the form of direct grant requirements, overdrafts in government-owned banks, or government guaranteed short-term debts held by commercial banks. This is equivalent to 12 percent of the government's total current revenues (excluding grants). When shortfalls of regular road maintenance are included (i.e., when the figures include erosion of capital), the financial burden rises to K 6,565 million ($131 million). This is equivalent to 17 percent of the government's total current revenues. The estimates for FY92 are equally large. The financial burden is K 6,243 million ($52 million) without the maintenance shortfall and K 10,330 million ($86 million) when erosion of capital is included. Far from contributing to government revenues, these transport agencies are imposing a major drain on such revenues. This report examines the reasons for this poor performance and outlines an agenda for improving it.

10 For purposes of analysis, the government-owned transport agencies have been divided into four main groups. The first group includes the agencies accounting for the largest and most important financial problems (the Roads Department, Zambia Railways Ltd. and Zambia Airways Corporation Ltd.). The second group focuses on the road transport industry (Contract Haulage Ltd., United Bus Company of Zambia Ltd. and support for urban bus operations). The third group focuses on airports and other civil aviation activities (National Airports Corporation Ltd. and the Department of Civil Aviation). The final group includes the remaining miscellaneous transport agencies (Engineering Services Corporation Ltd., Mpulungu Harbor Corporation Ltd. and Zambia National Shipping Company Ltd.). Chapter III examines the agencies facing the most serious financial problems, chapter IV examines the road transport industry, chapter V examines airports and other civil aviation while chapter VI deals with miscellaneous transport enterprises. Chapter VII finally discusses the overall financial performance of the government-owned transport sector, emphasizes the need for radical reform and summarizes the implications of adopting the financial reforms recommended in chapters III through VI of this report.

III. REVIEW OF AGENCIES WITH MAJOR PROBLEMS

11 Three agencies account for most of the deficits incurred by transport sector agencies and have the largest impact on the government's overall fiscal balance. They include the Roads Department (RD), Zambia Railways Ltd. (ZR) and Zambia Airways Corporation Ltd.(ZA). In FY91 and FY92 their losses amounted to K 4,268 million ($85 million) and K 4,911 million ($41 million) respectively (the losses consist of RD's revenue shortfall, ZR's government equity contributions and ZA's overdrafts and short-term loans) . The following sections examine each of the above agencies, identify the causes of weak financial performance and outline ways to improve it.

A. The Roads Sector

12 Zambia has a fairly extensive road network, although the density is low compared to other African countries. The spatial density is about 4 km per 100 sq. km (which is slightly below the average for Africa as a whole), while the population density is about 4 km per 1,000 population (which is about twice the average for Africa as a whole). The network includes 3,119 km of international trunk roads (T-roads), 4,048 km of main roads (M-roads), 23,882 km of district roads and 5,714 km of rural roads. Of this, about 2,979 km of T-roads, 2,008 km of M-roads and 1,489 km of district roads are paved. About 20,783 km fall under the jurisdiction of the central and provincial Roads Departments, while the remaining 15,980 km are under the jurisdiction of 9 urban and 48 rural District Councils (see Table 1). It is estimated that the replacement costs of the road network are about $1.95 billion (i.e., the capital value of past investments, valued at current prices, less the backlog of deferred maintenance).

Table 1: Length and Costs of Maintaining Trunk, Main and District Roads
(kms and $, million at FY92 prices)

	Trunk "T" Roads		Main "M" Roads		District Roads		Rural Roads
Type of Road (a)	RD	DC	RD	DC	RD	DC	DC
Road Lengths:							
Paved	2,916	63	1,991	17	1,489	-	-
Gravel	-	-	1,211	-	1,049	-	-
Earth	-	-	612	-	5,487	-	-
Unclassified	140	-	216	-	5,670	10,186	5,714
Total Length	3,056	63	4,031	17	13,696	10,186	5,714
Maintenance Costs: (b)							
Paved	11.66	0.25	7.96	0.07	5.96	0.00	0.00
Gravel	0.00	0.00	1.21	0.00	1.05	0.00	0.00
Earth	0.00	0.00	2.19	0.00	2.19	0.00	0.00
				0.00			
Unclassified	0.06	0.00	0.09	0.00	2.27	4.07	2.29
Total Costs	11.72	0.25	9.51	0.07	11.47	4.07	2.29

Notes: (a) RD = roads under the jurisdiction of the Roads Department; DC = Roads under the jurisdiction of District Councils.
(b) Maintenance costs have been estimated as follows (average cost p.a.):
Paved: routine $1,500; periodic $2,500.
Gravel: hand work $150; grading $400; regraveling $450.
Earth: hand work $100; grading $150; spot patch $150.
Unclassified: same as earth.

A.1 Current Financing Arrangements

13 Expenditures on RD roads were unbalanced during the entire 1980s (see Table 2). Maintenance expenditures (essentially recurrent expenditures on "Purchase of Goods", together with maintenance by Provincial Roads Departments) in FY86 were only K 19 million ($2.7 million), compared to project expenditures of K 224 million ($30.7 million). RD was thus spending nearly twelve times as much constructing new roads as it was maintaining the existing network. Maintenance expenditures thereafter increased until they reached K 305 million in FY91 ($6.1 million) compared to project expenditures of K 429 million ($8.6 million). Much of the project expenditures were furthermore for rehabilitation, so that nearly all road spending now concentrates on maintaining and rehabilitating the existing network. Budgeted allocations for maintenance in FY92 increased to K 587 million, but devaluation has reduced its real value to $4.9 million. Project expenditures for FY92, again almost entirely for rehabilitation, are budgeted at K 791 million ($6.6 million).

Table 2. Central and Provincial Roads Departments: Revenues and Expenditures
(Kwacha, million)

Item	1986	1987	1988	1989	Revised Estimate 1990	Estimate 1991	Business as Usual 1992 (a)	Revised 1992
Revenue:								
International Transit Fees	-	-	-	7.005	47.560	82.000	82.000	216.000
Fuel Charge (b)								
Gasoline	-	-	-	-	-	-	-	346.140
Diesel	-	-	-	-	-	-	-	320.320
M.V. Licenses	3.339	4.821	4.556	2.017	6.000	8.000	10.000	123.600
Road Toll								
Zaire Pedicle	0.358	0.106	0.027	0.678	0.255	0.300	0.350	0.350
Other	-	6.495	0.026	0.048	-	-	-	-
Road Traffic Collections	0.845	0.747	4.412	9.450	15.000	15.000	15.000	15.000
Total Revenue	4.542	12.169	9.021	19.198	68.815	105.300	107.350	1.021.410
Expenditures:								
Personal Emoluments	13.685	15.100	17.213	20.318	5.374	13.482	21.673	21.673
Recurrent Expenses								
Allowances	0.180	0.520	0.640	0.840	1.657	8.000	13.510	13.510
Purchase of Goods	19.442	23.215	30.490	64.675	34.195	224.001	479.264	479.264
Purchase of Services	0.285	0.470	1.062	1.138	1.513	5.260	18.095	18.095
Training	0.100	0.090	0.100	0.400	-	-	-	-
Capital Expenditure								
Movable Assets	-	-	-	-	-	2.000	90.000	2.000
Projects	222.543	175.065	199.093	311.000	498.404	419.500	791.000	791.000 (c)
Mechanical Services (30%)	13.046	7.485	?	?	-	-	-	-
Road & Road Traffic Board	0.241	0.389	0.418	1.732	3.791	8.728	17.774 *	17.774 *
Road Trfc Commissioners (d)	1.042	1.047	1.479	2.693	15.898	23.110	39.983 *	39.983
Provincial Roads Dept.								
Admin & Overhead	-	-	-	-	53.796	171.995	229.298 *	229.298 *
Maintenance (e)					54.730	81.293	108.377 *	108.377 *
Projects (f)	1.549	1.834	2.595	2.944	4.939	9.340	?	0.000
Sub-Total	272.113	225.215	253.090	405.740	674.297	966.709	1.808.974	1.720.974
Surplus/(Deficit)	(267.571)	(213.046)	(244.069)	(386.542)	(605.482)	(861.409)	(1,701.624)	(699.564)

Notes: (a) Business as Usual means 1992 Estimate without policy shift. Figures include actual project capital expenditure.
(b) Excludes general revenue taxes.
(c) Excludes capital expenditure on plant and equipment.
(d) Includes expenditure of provincial traffic commissioners.
(e) Maintenance of Provincial roads funded through the Prime Ministers Office. Includes expenditures on fuel, spare parts, maintenance materials and cycle maintenance.
(f) Project expenditure on feeder roads and road maintenance camps funded under the Provincial HQ vote.

* = Estimate.

14 Maintenance expenditures are well below the levels needed to keep the road network in a stable long-term condition. This is reflected in recent road condition surveys. In 1984 the proportion of the paved road network in good, fair and poor condition was 40, 30 and 30 percent respectively which was close to the average for East and Southern Africa as a whole. However, by 1990 these proportions had worsened to 20, 40 and 40 percent respectively. A rough calculation suggests that an optimal maintenance regime (i.e., one which minimizes the sum of vehicle operating costs and road maintenance costs) would involve annual expenditures on RD roads of about $33 million ($21 million for T & M roads and $12 million for district roads). Although these figures are not strictly comparable with RD expenditure estimates (which exclude the costs of administration and equipment), the differences between the two sets of figures are startling. Expenditures on T & M roads were K 224 million ($4.5 million) in FY91 and a mere K 479 million ($4.0 million) has been budgeted for FY92. Even if these figures were doubled to allow for the costs of administration and equipment, they would still be less than 40 percent of optimal requirements. The comparable figures for district roads are K 81 million ($1.6 million) and K 108 million ($0.9 million) respectively, which is only 10 to 20 percent of optimal requirements.

15 The condition of DC roads is no better. Indeed, roads under the jurisdiction of rural DCs are often impassable during the rainy season and this has a serious effect on agricultural output. The urban DCs have a broader tax base and this is reflected in their spending patterns. As an example, selected financial data for Kabwe Urban DC are presented in Table 3. The table shows that urban DCs have a narrow tax base and rely heavily on transfers from central government. The only effective local taxes are rates levied on property and these are notoriously difficult to collect. Furthermore, although the new local government act proposes to give DCs additional taxation powers, they do not go beyond residential and commercial rates, and local sales taxes. Revenue mobilization at the DC level will therefore remain weak. The table also shows that Kabwe Urban DC spends about 13 to 14 percent of its income on maintenance of roads and drainage, but that this only covered about 20 percent of optimal requirements in FY90. Although budgeted allocations for FY91 would cover nearly 50 percent of requirements, the increased spending is almost entirely dependant on estimated increases in the claw-back on local sales taxes and increased profits from shops and liquor undertakings.

Table 3. Revenues and Selected Expenditures: Kabwe Urban DC
(Kwacha, at 1991 prices)

	FY90 Approved	FY91 Estimate
Source of Revenues:		
Local Taxes		
Rates	6,000,000	13,283,360
Personal Levy (head tax)	900,000	950,000
Sub-Total	6,900,000	14,233,360
Transfers From National Taxes		
Grant in lieu of Rates	389,890	358,400
Share of Local Sales Tax	8,894,760	42,941,450
Sub-Total	9,284,650	43,299,850
Other Net Revenue		
Interest	70,000	75,000
Low-Cost Housing	(1,797,840)	(3,596,087)
Water & Sanitation Services	(184,810)	2,335,789
Shops & Liquor Undertakings	340,430	8,864,346
Factories, Motels, etc.	4,218,160	6,101,132
Sub-Total	2,645,940	13,780,180
Total District Revenues	18,830,590	71,313,390
Population	166,619	166,619
Local Taxes/Head	41	85
District Revenue/Head	1'3	428
National Taxes/Head	2,626	4,730
District Revenue/National Taxes (%)	4.3	9.0
Selected Expenditures:		
Road Maintenance & Drainage		
Actual and Budgeted	2,395,286	9,765,758
As % of Total District Revenue	12.7	13.7
Desirable Level of Expenditure	11,600,000	20,000,000
Actual and Budgeted/Desirable (%)	20.6	48.8

16 Inadequate allocations for maintenance have had three important effects. First, routine maintenance has effectively ceased and, even when funds are available, there is a chronic shortage of vehicles to transport laborers to where they are needed (vehicles are sometimes available, but get commandeered for other purposes). Most of the available funds are being used to carry out periodic maintenance on paved roads. As a result, the road network has deteriorated, vehicle operating costs have risen substantially (by two to three times the shortfall in maintenance allocations) and some rural roads have become impassable, particularly during the rainy season. It is estimated that about $250 million now needs to be spent rehabilitating paved roads and a further $150 million probably needs to be spent rehabilitating unpaved roads. In other words, about $400 million of public capital has been eroded through lack of maintenance (i.e., nearly 20 percent of the total capital invested in roads). These roads either need to be rehabilitated, or abandoned.

17 Second, road rehabilitation has become a substitute for regular road maintenance. Donor willingness to finance rehabilitation of roads (and in some cases even routine maintenance of these roads for a period of five years after rehabilitation) has avoided the need to put road maintenance on a sustainable financial basis. Roads are rehabilitated, receive little or no maintenance and after ten years again require rehabilitation. Third, lack of maintenance has eroded the physical capacity to plan, mobilize and undertake road maintenance. It has also destroyed the financial controls needed to ensure that allocations for maintenance are not diverted to other uses. The country's road maintenance capacity has withered away through disuse and now needs to be rebuilt.

18 One of the reasons for the acute shortage of finance, is that road users are paying negligible sums for use of the road network (see Table 2). License fees have not kept up with inflation and, more important, fuel taxes have been confined to a standard excise tax without any additional road user charge (gasoline is taxed at 30 percent and diesel at 28 percent).1/ The only significant source of revenues are the international transit fees introduced in FY89. The fees are payable in foreign exchange and started off at $60 per goods vehicle, but were increased in November 1989 to $120. The fees are collected on behalf of the government by British Petroleum Ltd. (BP) at centers in Lusaka, Kitwe, Livingstone and Chipata and are credited to the Ministry of Finance account at the Bank of Zambia. The arrangements for collecting these fees are vague. The funds are treated as miscellaneous revenue by the Ministry of Finance (instead of as road toll revenue) and there appears to be no arrangement for dealing with interest payments while funds await transfer to the Bank of Zambia (they sometimes wait 9 months before being transferred).

19 The international transit fee was replaced in June 1992 by the new Preferential Trade Area (PTA) harmonized road transit charge. The proposed charge is $8.00 per 100 km for heavy goods vehicles with more than 3 axles and $3.00 per 100 km for rigid goods vehicles without trailers. A typical international transit vehicle in Zambia has 6 axles and travels 800 km across Zambian territory and 900 km in adjoining countries. The new PTA charge for such vehicles would thus be $64, compared to the existing fee of $120. A Zambian vehicle, which has to pay to travel 900 km in the adjoining country, would pay a fee of $72. This represents a significant reduction over the existing fee level of $120 and PTA members are planning to meet in Maputo

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1/ Officials at the Ministry of Finance confirmed that tax rates on transport fuels were designed as general taxes and did not include any element to reflect road user charges.

to discuss ways of revising the fees. The current suggestion is that each country should be free to set its own fee level.

A.2 Options for Reform

20 There is a clear need to put the financing of roads on a sustainable long-term basis. Routine maintenance has virtually ceased, periodic maintenance is well below the levels needed to keep the road network in a stable long-term condition, the capacity to undertake road maintenance has been seriously damaged and about 20 percent of the capital invested in roads has been eroded through lack of maintenance. These problems apply at both central and district government levels. At the same time, road users are paying next to nothing for use of the road network. User charges cover a mere 6 percent of annual expenditures on roads, with the balance of the revenues, over K 1,700 million ($14 million) in FY92, coming from the government's scarce general revenues.

21 The task for the road sector is thus to: (i) mobilize sufficient revenues to ensure that the road network can be operated and maintained on a sustainable basis; (ii) devise management arrangements to ensure the funds allocated for maintenance are not confused with the government's general revenues and diverted to other purposes; (iii) revise arrangements for financing maintenance of DC roads; (iv) ensure that the capacity to undertake road maintenance is rebuilt and that effective procedures are put in place to control increased road maintenance expenditures; and (v) after resolving items (i) to (iii), develop a program to rehabilitate a core road network which the country can afford to maintain on a sustainable basis (there is no point rehabilitating roads which can not be maintained).

A.2.1 Revenue Mobilization

22 The government is seriously short of fiscal revenues and it is unrealistic to imagine that additional revenues for road maintenance could be allocated from the government's recurrent budget. Of necessity, the road sector needs to become more self-sufficient and will have to generate additional resources by raising road user charges. There are three charging instruments which could be used to mobilize these revenues: (i) international transit fees; (ii) vehicle license fees; and (iii) fuel charges.

23 The original international transit fee was $120 per goods vehicle and the new PTA agreement has lowered this to an average of $64 per vehicle. This is a large reduction and, for purposes of revenue mobilization, it is assumed that the proposed meeting in Maputo, which will discuss the suggestion that each country should set its own fee level, will enable Zambia to reinstate the original $120 fee. In FY90, transit fee revenue amounted to $1.64 million (all paid in foreign exchange) and this is expected to rise to $1.80 million in FY92 and $1.98 million in FY93. Since the fees are collected on an agency basis, BP needs to be paid a commission for collecting these fees. However, any interest earned on fee payments awaiting transfer to the Bank of Zambia, should be treated as part of the fee income. The Ministry of Finance should keep accurate records and not treat these fees as miscellaneous revenues.

24 Vehicle license fees have not been consistently adjusted for inflation and are low by regional standards. A large part of the vehicle fleet also appears to be unlicensed and uninsured (see Annex 1). It is therefore suggested that these fees be raised over a period of five years to levels similar to those in countries like Kenya and Uganda. This would raise average annual license fees for passenger cars from $21.00 to $75.00, for buses from an average of $37.50 to

$300.00 and for trucks from an average of $45.80 to $500.00. Provided all non-government vehicles are licensed (i.e., the administration and enforcement of the license system is substantially improved), this would mobilize about $1.03 million during FY92 and $5.45 million in FY96 when the full fees were payable (see Table A.2).

25 In the case of fuel, the suggestion is to add a supplementary road user charge to the price of gasoline and diesel fuel and again to introduce the increases over a period of five years. The charge for gasoline would rise from K 3 per liter in FY92 to K 13 per liter in FY96 and this would raise the pump price per liter of premium gasoline from the present level of K 86 ($0.72) to K 89 ($0.74) in FY92 and to K 99 ($0.83) in FY96. The charge for diesel fuel would likewise rise from K 2 per liter in FY92 to K 10 per liter in FY96. This would raise the pump price per liter of diesel from the present level of K 49 ($0.41) to K 51 ($0.43) in FY92 and to K 59 ($0.49) in FY96. The build-up of these prices is shown in Table 4. The new charges would generate K 666 million in FY92 and K 3,628 in FY96 ($5.6 million and $30.2 million respectively).

Table 4. Build Up of Retail Pump Prices of Fuel in Lusaka

(Kwacha and $ at Jan. 1992 prices)

	Premium Gasoline		Regular Gasoline		Diesel		Kerosene	
	K/cu m	$/liter	K/cu m	$/liter	K/cu m	$/liter	K/cu m	$/liter
Border Price	37,320	0.31	37,320	0.31	34,668	0.29	34,740	0.29
Implicit Tax/(Subsidy)	16,480	0.14	7,780	0.06	(5,368)	(0.04)	(5,640)	(0.05)
Wholesale Price	53,800	0.45	45,100	0.38	29,300	0.24	29,100	0.24
Excise Duty								
@30 %	16,140	0.13	13,530	0.11				
@28 %	-				8,204	0.07		
@15 %	-						4,365	0.04
Terminal Fee	200	0.00	200	0.00	200	0.00	200	0.00
Transport Cost @								
K15.0 per km/cu m	4,665	0.04	4,665	0.04	4,665	0.04	4,665	0.04
Company Margin @ 7.5 %	5,610	0.05	4,762	0.04	3,178	0.03	2,875	0.02
Dealer's Margin @ 7.5 %	6,031	0.05	5,119	0.04	3,416	0.03	3,090	0.03
Total	86,447	0.72	73,376	0.61	48,963	0.41	44,295	0.37
Pump Price per liter	86	0.72	73	0.61	49	0.41	44	0.37
Price including New Tax								
FY92	89	0.72	76	0.64	51	0.42		0.37
FY96	99	0.83	86	0.72	59	0.49		0.37

Note: Exchange rate used is K120 = $1.00.

26 The above price increases would make Zambia a relatively high-price country for gasoline (which, as a land-locked country, it should be), while the price of diesel fuel would still be average by regional standards (see Table 5). In FY96, the price of gasoline would be similar to that in Rwanda and Zaire, while the price of diesel fuel would be lower than Malawi, but higher than Zimbabwe. Fuel prices would remain low in relation to West African countries like Ivory Coast, Chad, Senegal and Niger. It would also be low compared to industrialized countries (where premium gasoline usually costs between $0.90 and $1.00 per liter, and diesel between $0.60 and $0.90 per liter). The proposed fuel charges would affect relative prices and create a large differential between the price of kerosene and gasoline/diesel. This would encourage vehicle operators to substitute kerosene for diesel fuel (there is always a temptation to do this when the price differential exceeds about $0.08 per liter) and encourage garage owners to mix kerosene with gasoline. Zambia fortunately colors its kerosene with blue dye and this should prevent mixing with gasoline. It is more difficult to discourage substitution of kerosene for diesel fuel and it is recommended that introduction of the new fuel charges be accompanied by increased enforcement (i.e., inspection of fuel tanks for blue coloration) to discourage substitution.

Table 5. Prices of Gasoline and Diesel Fuel in Selected Countries
(U.S. Cents at end 1991 prices)

	Fuel Price			Fuel Price	
Country	Gasoline	Diesel	Country	Gasoline	Diesel
Tanzania	42	25	Zambia, FY92	72	41
Namibia	46	41	Zambia, FY96	80	47
Swaziland	46	41			
Ghana	53	43	Zaire	81	73
Kenya	53	37	Rwanda	81	79
Burundi	63	61	Niger	94	81
Malawi	64	56	Ivory Coast	124	115
Cameroon	68	58			
Zimbabwe	68	37	Germany	93	68
Botswana	68	61	U.K.	94	82
Uganda	69	55	France	99	64
Mozambique	74	26	Italy	124	95

27 The present tax rates applied to gasoline and diesel fuel result in gross tax rates of 19 and 18 percent respectively (the gross tax rate is the amount of tax divided by the final selling price). The above fuel charges would raise these gross tax rates to 30 and 32 percent respectively. The net customs and excise taxes applicable in Zambia are generally 15, 30 and 50 percent, depending on the type of commodity. If these were replaced by a broad-based commodity tax with a minimum of exemptions (as recommended in the World Bank policy paper, Lessons of Tax Reform), the gross tax rate would probably be in the vicinity of 20 percent. In such a system, tax rate differentiation would be kept to a minimum and applied only to those items which justified higher rates on grounds of equity, or efficiency (i.e., where the item was known to have a low price elasticity of demand and Ramsey pricing suggested a higher rate in the interests of

minimizing overall welfare losses). Gasoline and diesel fuel fall into this category and tax rates of 2 and even 3 times the standard rate are usually justified (because of the low price elasticity of demand for gasoline and diesel fuel). An optimal fuel tax would thus be in the vicinity of 40 to 50 percent, suggesting two things: (i) the proposed fuel charges would result in overall fuel taxes which were economically efficient; and (ii) the overall welfare losses due to taxation would be reduced if the taxes on gasoline and diesel fuel were raised even further (from 30 and 32 percent to nearer 40 percent) and other tax rates were lowered accordingly.

28 Timely implementation of the above arrangements would have a significant impact on the road sector's financial balance. It would reduce the sector's overall FY92 Business As Usual (BAU) deficit from K 1,700 million ($14 million) to about K 700 million ($5.8 million), although there would still be a shortfall of regular road maintenance of about K 3,300 million ($28 million). However, the shortfall could be completely eliminated by FY96 (see Tables 2 and 6). Indeed, by FY96, the road account (excluding the Roads and Road Traffic Board and the Traffic Commissioners, but including expenditures on traffic police) could cover all maintenance requirements and run a current account surplus of nearly K 400 million ($3.2 million). This surplus represents the internal financing available to support rehabilitation of roads and would provide most of the local currency required to support a realistic road rehabilitation program.

A.2.2 Management Arrangements

29 Roads are important national assets. Their replacement value (assuming about 25 percent of their value has already been eroded through lack of maintenance) is about $1.95 billion, of which $1.46 billion is managed by RD and $0.49 billion by the various DCs. Few other enterprises in Zambia manage assets of comparable size. The net asset value of the National Airports Corporation is $50 million, while the estimated replacement costs of Zambia Airways and Zambia Railways are $120 million and $400 million respectively. Roads are clearly *big business* in Zambia. RD is nevertheless still managed as a government department. It offers terms and conditions of employment which are unattractive to managers and technical staff, keeps accounts on a cash basis, has no balance sheet and simply writes off new investments as soon as they are made. Expenditures are furthermore financed from general revenues allocated as part of the annual budgetary process. In other words, RD's financial accounts lack transparency. There is limited managerial accountability and no market discipline. Revenues and expenditures are de-linked, road user charges are not separated from other taxes and the government does not know how much road users are paying for use of the national road network. Such arrangements may be suitable for agencies managing few assets and handling small sums of money (e.g., like minor regional airports), but are not suitable for an agency with assets worth billions and managing (with road maintenance fully funded) an annual recurrent budget of $33 million and a capital budget of $15 million. Roads need to be managed in a more business-like way.

30 The suggestion is that RD should be commercialized and required to account for its activities along regular commercial lines subject to a hard budget constraint. Under such arrangements, RD might eventually become an autonomous Roads Board, owned by the government but managed by a Board made up of *ex officio* representatives of government (e.g., ministries of Works & Supply, Communications & Transport, Agriculture, Industry, etc.) and representatives of the road transport industry. The Roads Board would be expected to collect its own revenues through the international transit fees, license fees and fuel charges outlined in section A.2.1 above, or to cause them to be collected by others under a clear agency arrangement. International transit fees could continue to be collected by BP and fuel charges could be collected by Zimoil and credited to the Roads Board. Current arrangements for

collecting license fees also require revision. There is a great deal of evasion and the existing procedures administered by the Road Traffic Commission either need to be substantially improved, or fees need to be collected by the proposed new Roads Board, which would have an incentive to minimize evasion.

31 The Roads Board would also be expected to prepare an income statement, a sources and application of funds statement and to keep a balance sheet. The balance sheet should furthermore show the capital value of the national road network, the accumulated shortfalls of regular road maintenance (i.e., aggregate erosion of capital) and should write off road rehabilitation against this erosion. Cost accounting, in the form of performance budgeting, should be introduced to complement the commercial accounting systems to improve planning, execution and monitoring of road maintenance. An effective financial control system, supported by independent external auditing, should also be introduced to ensure that the substantial increase in funding envisaged under the above proposals are adequately accounted for. Finally, to further strengthen market discipline and promote more public involvement, fuel charges should be prominently displayed on all fuel pumps. The public needs to know what they are paying for roads to ensure they demand value for money and hold the Roads Board accountable for the efficiency of road spending.

A.2.3 Maintenance of DC Roads

32 The above user charges would all be collected by (or on behalf of) the Roads Board. Some of the revenue would therefore represent charges for use of urban and rural DC roads and some mechanism would be needed to ensure these revenues reached the district level agencies responsible for maintaining DC roads. That does not mean all DC road expenditures should be financed from user charges. DC roads are mainly access roads (i.e., they include a lot of municipal streets and rural access roads), carrying low volumes of traffic and these roads are usually financed through a combination of central government grants, user charges and local property taxes. Part of the revenues collected at the national level nevertheless need to be remitted to DCs in the form of a block grant to support district road expenditures.

33 The example of Kabwe Urban DC showed that DCs have a narrow and relatively weak tax base (see Table 3). The urban DCs rely on property taxes and head taxes and, under the new local government act, may also start collecting local sales taxes. Rural DCs generally have a weaker property tax base (e.g., fewer commercial undertakings and less formal housing) and tax instruments which are more difficult to administer (e.g., taxes on movement of fish and agricultural produce). Kabwe Urban DC is allocating reasonable sums of district revenue to support spending on maintenance of roads and drainage. In spite of that, it is only meeting about 25 to 50 percent of requirements (the figure of 50 percent being an estimate which may not be realized in practice). Their tax base makes it unrealistic to imagine they could mobilize sufficient local revenues to meet all requirements or, if they did, that the funds would eventually be spent on maintenance of roads and drainage (rather than on other local expenditure programs). The local tax effort — at least in relation to DC roads — appears to be close to its limit.

34 The block grants made to support DC roads, may therefore have to cover up to 50 percent of local maintenance requirements. This issue nevertheless needs to be examined in more detail, since some DCs are more solvent than others and introduction of a block grant system offers an ideal opportunity to encourage greater local tax effort. Table 6 has therefore assumed, for illustrative purposes, that the average grant amounts to about 30 percent of aggregate DC road maintenance requirements. Administrative arrangements for making such block grants would also have to cover: (i) preparation of a credible road maintenance program; (ii) assurances that funds would be spent on road maintenance (supported by appropriate technical and financial auditing procedures); and (iii) an agreed formula for estimating block grant entitlements (based on length and type of road, population and income levels).

Table 6. Indicative Financing Plan for Trunk, Main and District Roads (a)
(Kwacha, million, at FY92 prices)

	FY 92	FY93	FY94	FY95	FY96
Revenues:					
International Transit Fees (b)	216.00	237.60	261.36	287.50	316.25
Annual License Fees (c)	123.60	266.45	420.53	586.50	765.09
Fuel Charges (d)					
Gasoline	346.14	659.97	998.36	1,362.76	1,754.72
Diesel	320.32	666.27	1,039.37	1,441.27	1,873.65
Other	15.35	15.96	16.60	17.27	17.96
Total Revenues	1,021.41	1,846.25	2,736.22	3,695.29	4,727.65
Expenditures: (e)					
Administration (f)	55.28	57.49	59.79	62.18	64.67
Maintenance of T & M Roads					
Paved (g))		517.97	988.85	1,600.99	2,354.40
Gravel)	479.26	58.08	87.12	116.16	145.20
Earth)		11.52	17.28	23.04	28.80
Unclassified)		7.20	10.80	14.40	18.00
Maintenance of District Roads					
Paved)		286.08	429.12	572.16	715.20
Gravel)	108.38	50.40	75.60	100.80	126.00
Earth)		105.12	157.68	210.24	262.80
Unclassified)		108.96	163.44	217.92	272.40
Contrib to District Roads (h)		96.19	144.29	192.38	240.48
Traffic Police (i)	-	100.37	104.39	108.56	112.91
Total Expenditures	642.92	1,399.58	2,238.35	3,218.84	4,340.85
Profit/(Loss)	378.49	446.87	497.87	476.45	386.80
Percentage of Maintenance Financed	-	0.40	0.60	0.80	1.00

Notes: (a) Traffic is assumed to grow at 4 percent p.a. Maintenance requirements are assumed to remain constant.
(b) Based on current toll revenue increasing at 10 percent p.a.
(c) Fees rise from $1.7 to $5 for motorcycles, from $21 to $75 for cars, from an average of $37.5 to $300 for buses, from $16.7 to $125 for vans and from $45.8 to $500 for trucks over the five year period.
(d) The gasoline charge rises from to K 2 to K 13 per liter and diesel from K 2 to K 10 over the period. The revenue estimates are based on 1989 fuel sales.
(e) Ideal maintenance requirements based on $4,000 per km for paved roads, $1,000 for gravel roads and $400 for earth and unclassified roads.
(f) Based on estimated 1991 budgeted expenditures on Personal Emoluments. Allowances, Purchase of Services and Moveable Assets.
(g) Length of road under maintenance increases from 3,500 to 6,396 km during the period; the remainder of the paved roads are being rehabilitated.
(h) This assumes that central government meets 30 percent of the "ideal" maintenance costs of District Council roads by FY96.
(i) Based on 15 percent of Police HQ budgeted costs.

A.2.4 Road Maintenance Capacity

35 The technical capacity to undertake road maintenance also needs to be rebuilt. The process nevertheless needs to bear in mind the following factors. First, RD has had difficulty managing and maintaining road maintenance equipment. Maintenance arrangements with the former Mechanical Services Department (MSD) were not satisfactory and RD does not employ ESCO to maintain its mechanical equipment. As a result, repair and maintenance of equipment is problematic and RD also has difficulty recruiting and retaining qualified heavy equipment operators. The difficulties experienced with the Bank's previous highway project were largely due to problems with mechanical equipment. The equipment and spare parts were procured, but the re-equipped resealing and re-graveling units remained idle for much of the time, due to inadequate budget allocations, and little road maintenance was undertaken. Second, RD finds it almost impossible to recruit and retain qualified engineering and technical staff and has to rely on technical staff financed by foreign donors (about half the authorized technical staff positions are vacant and many are under-filled). Third, world-wide experience has demonstrated that most road maintenance activities can be sub-contracted, that this improves quality and can reduce costs by as much as 10 to 20 percent (when force account work is fully costed). Fourth, Zambia appears to have a number of competent local consulting engineers (who are continually losing qualified local engineers to firms in Botswana) and there are a number of local civil works contractors capable of undertaking road maintenance work.

36 One way to rebuild road maintenance capacity is thus by involving the private sector. Local consultants (strengthened, as necessary, through existing associations with foreign partners) could be used to prepare bid documents, issue and evaluate tenders and supervise the ensuing maintenance work. Local contractors are likewise capable of undertaking most types of maintenance, provided it is appropriately packaged to suit their physical and financial capacity. It is therefore suggested that sub-contracting work to the private sector should become the main instrument for rebuilding road maintenance capacity.

37 In rural areas, it is suggested that maintenance of gravel and earth roads under the jurisdiction of RD be undertaken by way of individual labor sub-contracts (i.e., through the lengthman system). These are labor contracts under which rural residents are given short sections of road (usually about 5 km) to maintain by hand with a minimum of hand tools. The work includes vegetation control, clearing drains and filling potholes and can usually be planned to avoid conflict with the demands for agricultural labor. The role of RD would be confined to supervision, providing hand tools (usually leased to laborers) and paying for work completed. The lengthman system has many advantages. The main ones are that it provides a welcome form of income support to rural areas (particularly for female household heads), the labor does not have to rely on motorized transport to site (the lengthmen either live near the road, or can get there by bicycle) and, since the lengthmen are maintaining roads they themselves use, they have a strong incentive to keep them in good condition.

38 Sub-contracting would also change the role of RD. Under this scenario, RD would become a more specialized agency, with a smaller and better paid staff. They would primarily be planners, facilitators and paymasters. They would plan all road expenditures, recruit private sector consultants, select contractors based on the consultants' bid evaluations and disburse funds after work had been satisfactorily completed. They may also need to undertake emergency maintenance and some routine maintenance on paved roads. RD would need to retain the capacity to undertake such work. Any labor made redundant through the proposed reorganization of RD would furthermore have to be voluntarily transferred to private contractors undertaking

road maintenance, or otherwise compensated through introduction of a formal labor redundancy scheme.

A.2.5 Road Rehabilitation

39 There is currently a large backlog of road maintenance which needs to be made good. Total requirements are in the vicinity of $500 million, of which $243 million relates to rehabilitation of 3,054 km of paved roads. RD has prepared a program for rehabilitating these roads (and constructing some new ones). It envisages development expenditures rising from K 1,432 million in FY91 ($29 million with a 73 percent foreign exchange content), through K 6,727 million in FY92 ($56 million) and K 7,576 million in FY93 ($63 million), to K 5,700 million in FY94 ($48 million with a 90 percent foreign exchange content). These proposals are unrealistic and the revised FY91 and FY92 estimates instead budget for K 420 million and K 1,098 million respectively, excluding projects financed through provincial roads departments (see Table 7). The final program, as amended by the FY91 and FY92 budget discussions, further reduced the FY93 approved budget allocation to K 791 million.

Table 7 Overall Development Budget, Ongoing and New Projects 1991-1994
(Kwacha, million and $, million)

	1991			1992			1993			1994		
	Local	FX	Total	Local	FX	Total	Local	FX	Total	Local	FX	Total
Ongoing Projects:												
A. Transport Planning Unit	2.0	0.0	2.0	2.0	0.0	2.0	20.0	0.3	56.0	0.0	0.0	0.0
B. Roads												
Designs, Surveys, etc	8.0	0.0	8.0	40.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0	40.0
Solwezi-Mwinilunga	85.0	0.3	100.0	80.0	0.8	176.0	220.0	0.0	220.0	250.0	0.0	250.0
Chundwe Bridge	5.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lusaka-Kaoma (CHI)	20.0	1.2	80.0	350.0	0.0	350.0	300.0	0.0	300.0	300.0	0.0	300.0
Mansa-Mwense-Nchelenge (ITA)	10.0	0.0	10.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0
Kafue-Chirundu (USAID)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mutanda-Zambezi (KFW)	25.0	2.7	157.5	54.0	0.6	130.8	60.0	1.5	240.0	60.0	1.0	180.0
Bridge Works	9.0	0.0	9.0	10.0	0.0	10.0	0.0	5.0	600.0	0.0	5.0	600.0
Quarries (Roads)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Choma-Namwala	10.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kafue-Monze (Ph. I) (NORAD)	0.0	0.0	0.0	10.0	0.4	58.0	20.0	6.0	740.0	20.0	6.0	740.0
Kapiri-Chingola (DANIDA)	0.0	0.0	0.0	10.0	0.4	53.2	15.0	10.0	1,215.0	20.0	6.0	740.0
Lusaka-Kitwe	0.0	0.0	0.0	10.0	0.4	53.2	66.0	10.0	1,266.0	66.0	10.0	1,266.0
Plant & Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lusaka-Kabwe (EEC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kafue-Lusaka (USAID)	0.0	0.0	0.0	40.0	0.2	68.8	20.0	12.0	1,460.0	20.0	6.0	740.0
Kafue Bridge (JAPAN)	0.0	0.0	0.0	10.0	0.2	38.8	20.0	4.0	500.0	20.0	0.5	80.0
Livingstone-Sesheke	30.0	0.2	40.0	40.0	0.0	40.0	50.0	0.0	50.0	60.0	0.0	60.0
Lusaka-Chipata (DANIDA+ADB)	0.0	0.0	0.0	10.0	0.2	29.2	20.0	8.5	1,040.0	20.0	8.0	980.0
Road Maintenance Study (ADB)	0.0	0.0	0.0	0.0	0.0	0.0	?	?	?	?	?	?
Technical Assistance (ADB)	0.0	0.0	0.0	0.0	0.0	0.0	?	?	?	?	?	?
Sub-Total Roads	202.0	4.4	419.5	714.0	3.2	1,098.0	831.0	57.0	7,671.0	876.0	42.5	5,976.0
C. Other												
Track Circuit Bond Wires	0.0	0.0	0.0	3.5	0.4	45.5	3.5	0.4	45.5	3.5	0.4	45.5
Chipata-Muchinji Railway	10.0	0.0	10.0	40.0	0.4	88.0	80.0	2.0	320.0	50.0	1.0	170.0
Sub-Total Other	10.0	0.0	10.0	43.5	0.8	133.5	83.5	2.4	365.5	53.5	1.4	215.5
TOTAL ONGOING PROJECTS	214.0	4.4	431.5	759.5	4.0	1,233.5	934.5	59.7	8,092.5	929.5	43.9	6,191.5
New Projects:												
A. Dry Ports	20.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B. Railways												
Railway Police Radio	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.5	62.5	0.0	0.0	0.0
Loco Rehabilitation	0.0	0.0	0.0	0.0	0.0	0.0	18.8	49.0	5,898.8	0.0	0.0	0.0
Track Repair & Upgrading	0.0	0.0	0.0	0.0	0.0	0.0	140.6	3.7	584.6	140.6	3.7	584.6
Siwami-L'stone Track Renewal	0.0	0.0	0.0	0.0	0.0	0.0	532.5	12.3	2,008.5	0.0	0.0	0.0
Railway Workshop Equipment	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.0	121.3	2.5	2.0	242.5
Ballast Quarries	0.0	0.0	0.0	0.0	0.0	0.0	30.0	3.9	498.0	30.0	3.9	498.0
Kafue Railway Bridge	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	60.0	37.5	5.4	685.5
Inspection & Gang Trolleys	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2	24.5	2.0	1.1	134.0
Track Maint Eqpt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	42.0	7.5	1.6	199.5
Unspecified	10.0	0.8	110.0	44.0	1.7	244.4	22.0	0.8	121.6	-	-	-
	10.0	0.8	110.0	44.0	1.7	244.4	748.1	72.3	9,421.7	220.1	17.7	2,344.1
C. Civil Aviation												
National Airports	10.0	1.0	60.0	48.0	2.4	336.0	48.0	2.4	336.0	48.0	2.4	336.0
Dept of Civil Aviation	28.0	0.0	28.0	29.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0	29.0
Sub-Total Aviation	38.0	1.0	88.0	77.0	2.4	365.0	77.0	2.4	365.0	77.0	2.4	365.0
TOTAL NEW PROJECTS	68.0	1.8	218.0	121.0	4.1	609.4	825.1	74.7	9,786.7	297.1	20.1	2,709.1
GRAND TOTAL	282.0	6.2	649.5	880.5	8.0	1,842.9	1,759.6	134.3	17,879.2	1,226.6	64.0	8,900.6

40 The main constraints on the size of the rehabilitation program are: (i) RDs implementation capacity; and (ii) the availability of government local currency contributions. A pragmatic rule-of-thumb for local currency contributions is that they should be able to finance about 20 percent of project costs, leaving the remaining 80 percent to be financed through donor-financed foreign exchange. In other words, if local currency contributions are limited to between K 400 million and K 500 million (see Profit/(Loss) figures in Table 6), the overall development program should be limited to between K 2,000 million and K 2,500 million ($16.7 million and $20.8 million). Applying this criterion to the ongoing and new projects proposed in the FY91-94 development budget, shows that the proposed FY93 and FY94 programs are still too large. They are at least twice the size of the program affordable under the financing plan outlined in Table 6. On the other hand, the program for FY92 could be marginally increased if the proposed financial reforms (higher license fees and a supplementary fuel charge) are quickly introduced.

41 In the long term the intention should be to make main roads self-financing. Once the existing maintenance backlog has been cleared, RD should attempt to be financially self-sufficient. New investment should then be financed through retained earnings and borrowing (probably from the government) and user charges should be set to generate sufficient net revenues to cover operation and maintenance expenditures, part of the investment program and sufficient revenues to service the long-term loans required to finance the balance of the investment program.

A.3 Conclusions

42 It is suggested that the government consider taking the following steps to put the road sector on a sound financial basis:

(i) Attempt to persuade the PTA to allow each country to set its own transit fees and, when that has been agreed, reinstate the original $120 fee for heavy vehicles with more than 3 axles.

(ii) The revenue from international transit fees should be recorded in the Ministry of Finance accounts as *toll revenue* and there should be a clear agency agreement with BP covering agency fees and arrangements for dealing with interest earned while fee revenue is awaiting transfer to the Bank of Zambia.

(iii) The government should raise vehicle license fees over the next five years to K 9,000 for a car, K 36,000 for a bus and K 60,000 for a truck (all at 1992 prices) and introduce a supplementary fuel charge to support spending on roads (eventually adding K 13 per liter to the price of gasoline and K 10 per liter to the price of diesel fuel). The increases should be introduced as part of a five-year package intended to improve the financing of roads.

(iv) The government should seriously consider commercializing RD and requiring it to account for its activities along regular commercial lines. Among other things, this would involve creation of an autonomous Roads Board, explicit linking of revenues and expenditures and introduction of a hard budget constraint.

(v) The government should start a dialogue with DCs with a view to agreeing on ways to revise the financing of district roads. The dialogue would have to cover arrangements for making block grants, their size and the nature of the allocation formula to be applied to each DC, the scope for encouraging greater local tax effort, and arrangements for technical and financial auditing of the ensuing road maintenance programs.

(vi) The government should take steps to rebuild the country's road maintenance capacity. It is suggested that this be done through maximum involvement of the private sector. Local

consultants should be used for preparation and supervision of works, and local contractors could be used to implement the civil works. In rural areas, lengthman sub-contractors should also be considered. RD could then evolve into a more specialized agency concentrating on the planning and financing of roads.

(vii) Finally, a road rehabilitation program needs to be developed to make up for past shortfalls in regular road maintenance. The size of the program will be constrained by the availability of government local currency contributions. The financing plan presented in section A.2.2 would support a development program of between K 2,000 million and K 2,500 million and it is suggested that the proposed development program for FY93-94 be adjusted in line with this constraint.

(viii) In the long-term, RD should aim to be financially self-sufficient and, once the existing backlog of road maintenance has been made good, should aim to finance all investments through internally generated funds and long-term loans.

B. Zambia Railways

43 Zambia Railways Ltd. (ZR) employs 8,500 staff, operates 1,888 km of track and carries about 4 million tonnes of freight and 100,000 passengers per year. About a quarter of the freight traffic is domestic, another quarter is transit traffic and the remainder is international traffic. Traffic has fallen steadily in recent years. Freight traffic hovered around 4.4 to 4.8 million tonnes p.a. from 1980/81 until 1987/88, rose briefly to 4.9 million tonnes in 1988/89, fell to 4.2 million tonnes in 1989/90 and fell again in 1990/91 to 3.4 million tonnes. Traffic during 1991/92 is expected to fall even further to 3.1 million tonnes. Although loss of traffic is partly attributable to economic factors, it is also due to deteriorating service quality (see next paragraph). Passenger traffic has also fallen sharply in recent years. In 1988/89 ZR carried 2.2 million passengers, but this fell to 1.2 million in 1989/90 and to 0.8 million in 1990/91. The decline in passenger traffic is likely to continue, since ZR now faces stiff competition from high quality inter-city bus services on virtually all routes.

44 ZR's operational performance is poor and getting worse (see Annex 2, page 1). The target for locomotive availability is 75 percent, but actual availability has declined consistently from 63 percent in 1986 to 43 percent in 1991. As a result, ZA has had to hire locomotives from South African Transport Services (SATS) now known as Spoornet (25 in 1989, 22 in 1990 and 13 in 1991). Wagon turnaround times have also deteriorated. Between 1988 and 1991 turnaround times increased from 14 to 17 days (domestic freight), from 4 to 12 days (mineral traffic) and from 4 to 6 days (transit traffic). These poor turnaround times have a direct impact on rolling stock requirements; a turnaround time of 12 days requires three times as many wagons as one of 4 days. Most other productivity indicators were either stagnant or got worse. The figures are furthermore well below the company's own modest targets.

B.1 Current Financial Performance

45 The company's financial performance has deteriorated in recent years (see Annex 2). Net profits were positive in 1987/88, but have been negative ever since. Losses in 1990/91 reached K 440 million ($15 million). However, the *real* bottom line is much worse. There are four main factors which distort the bottom line. First, the corporation stopped servicing its debt in 1986/87 and only made a token interest payment of K 225 million ($8 million) in 1990/91 (at 10/31/91 total interest due for the year was K 491 million and principal due would have required an additional cash payment of K 237 million). Second, depreciation provisions between 1986/87 and

1989/90 fell from nearly 7 percent of total fixed assets to less than 2.5 percent. Third, the assets have not been re-valued and the value appearing in the accounts in 1990/91, K 2,724 million ($94 million), is well below the estimated replacement costs of these assets (over $400 million). Finally, ZR is living off its assets (i.e., it is not spending enough to keep its assets in a stable long-term condition). As a consequence of that, ZR will need to make substantial expenditures in future years to restore these assets, or acquire new ones as the deteriorated assets reach a premature end.

46 In spite of the above, internal sources of funds were negative in 1989/90 and ZA had to cover the shortfall (and finance its other requirements) through government grants and equity infusions of K 169 million ($13 million) and increase its accounts payable by K 939 million ($73 million). In 1990/91, accounts payable dropped by K 809 million ($28 million), but this required government grants and equity contributions of K 2,347 million ($81 million). ZR's Corporate Plan expects these shortfalls to continue requiring further infusions of equity and long-term loans. On a tentative basis, it is estimated that ZR will continue to require government equity contributions of about K 1,500 million ($30 million) in 1990/91 and K 2,000 million ($17 million) in 1991/92.

47 To address the above problems ZR has prepared a Ten Year Development Plan (TYDP) to enable the corporation"to execute its duties in a cost-effective manner". The TYDP and ZR's Corporate Plan (1991/92-1995/96) and Business Plan (1991/92) show little recognition of the company's serious financial position and do not face up to the difficult issues which have to be overcome if the corporation is to survive. Instead, they deal in generalities and focus on peripheral issues like establishment of quarries, manufacturing concrete sleepers and developing parcels traffic. The traffic forecasts and operational targets are unrealistic. Even though ZR is currently incurring losses, the TYDP projects internal financing of $123 million over the ten year period. With unpaid debts in 1990/91 of K 677 million ($23 million) and a required government equity contribution of K 2,347 million ($81 million), the projections are not realistic.

48 The TYDP likewise places too much emphasis on procuring new items of equipment without clear arrangements for overhauling and maintaining them or, in the case of passenger coaches, any idea of their value to the rail business. For example, the TYDP recommends adding 26 new locomotives to the existing fleet of 71 when: (i) a recent study has shown that, with efficient operation and reasonable utilization levels, the corporation requires no more than 35 locomotives; and (ii) the corporation does not have the capacity to overhaul and maintain its existing fleet, let alone maintain any additions to the fleet. The TYDP also proposes to spend $31 million purchasing 52 new passenger coaches (with priority I-II out of IV) for a business sector with a turnover in 1990/91 of K 83 million ($2.9 million) which is rapidly declining. Such investments would not be *cost-effective*.

B.2 Options for Reform

49 ZR currently imposes a major drain, both directly and indirectly, on the government's overall fiscal revenues. Given the poor financial performance of the corporation — and the plans embodied in the TYDP and other documents — the situation is unlikely to improve. The corporation's performance will only improve if it is radically restructured and low priority projects like the new Chipata-Mchinji rail line to Malawi are canceled, or postponed. There are at least five issues requiring immediate attention. ZR needs to: (i) improve its accounts to ensure they present an accurate and unbiased picture of the corporation's financial health; (ii) focus on its core business as a freight railway; (iii) reform current arrangements for overhauling and

maintaining locomotives and rolling stock; (iv) improve operational efficiency and reduce surplus labor; and (v) rehabilitate high priority sections of track in a cost-effective manner.

50 One of the first tasks should be to improve the corporation's accounts. Among other things, this means accounting properly for debts, revaluing assets, making adequate provisions for depreciation and ensuring that maintenance expenditures are high enough to prevent erosion of capital. Simply stated, to maintain the value of the equity invested in ZR (i.e., to avoid de-capitalization of assets), the corporation needs to generate sufficient gross cash flow (working profit plus depreciation) to service debts and replace assets. A rough calculation suggests it needs to generate about $23 million per year, rather than its present negative cash flow, to achieve this target. Furthermore, to earn 10 percent return on equity investment, ZR would have to earn an additional $30 million per year.

51 The second need is for the corporation to focus on its core business. Some of the activities in which it is presently involved (operation of a pre-cast concrete factory), or actively attempting to become involved (operation of stone quarries and the parcels business), are not commercially sound. The pre-cast concrete factory is operating well below capacity, has concentrated unduly on manufacture of railway sleepers and will be wholly redundant if it is eventually decided to switch from concrete to steel sleepers. ZR likewise has no comparative advantage in operating quarries and should leave such activities to the private sector. The same applies, though to a lesser extent, to the parcels business. Most railways are trying to get out of the parcels business and ZR should only develop this business (if at all) in conjunction with private sector interests. Finally, there is the issue of ZR's passenger services. Traffic is declining, passenger revenue accounts for a mere 2.5 percent of total income and passenger operations appear to require large cross-subsidies from the freight business. Current passenger services therefore need to be restructured to make them profitable (if that is feasible), terminated when existing equipment is worn out (as should be done with the Mulobezi line instead of spending $5.3 million rehabilitating it), or continued as loss-making services operated under an explicit Passenger Service Obligation (PSO) grant paid by the government.

52 Arrangements for overhauling and maintaining locomotives and rolling stock also need to be reformed. Low locomotive availability is partly related to poor performance of ZR's workshops. In 1989 locomotives overhauled by the workshops were still only achieving an average of just over 6,000 km between failures. The poor performance of ZR's workshops is furthermore not attributable to inadequate workshop facilities. The workshops are well-endowed with buildings and equipment financed under Canadian bilateral aid and the Bank's first two railway projects. They nevertheless appear to be poorly managed, cannot recruit sufficient qualified mechanics and their equipment is consequently under-used, or used to carry out work for third parties. The problems they face are deep-seated and are unlikely to be solved through provision of technical assistance or, as suggested in the TYDP, provision of additional expensive equipment. Instead, ZR should consider getting out of overhaul and maintenance of locomotives and rolling stock and concentrate on operation of running sheds only. Overhaul and maintenance could then be done on a contractual basis by a third party (based either on privatization of the existing workshops, or railway workshops in Zimbabwe or South Africa), or locomotives could be leased from a third party leaving the third party with responsibility for their overhaul and maintenance.

53 The above reforms need to be complemented by strenuous efforts to improve utilization of rolling stock to avoid the need for costly hiring from Spoornet and purchase of new Canadian locomotives. A recent review of ZR's operations shows that, with feasible improvements in

locomotive availability and utilization (even under current track conditions), no locomotive hires are necessary. The same applies to wagons. With improved performance, no hires are necessary and there may even be a large surplus of wagons. Other cost-saving measures are also feasible. Costs could be reduced through tighter operations (saving fuel and crew costs by running full trains and improving rostering), improved planning and monitoring of operations and introduction of a formal labor redundancy scheme to reduce surplus staff. Finally, there is a need to rehabilitate priority segments of track. This should concentrate on relieving restrictions on sections of track carrying the highest volumes of freight traffic and generally facilitating the expeditious movement of freight. As far as possible, the work should be done by sub-contractors to ensure it is cost-effective and carried out according to specification.

54 The government's original development budget for FY92 included K 3,751 million ($31.3 million) to support ZR's TYDP. Subsequent revisions reduced this allocation to zero (see Table 7). The above review questions the need for much of the investment included in the TYDP and supports this action. Instead, it is recommended that the development plan include a provision of K 300 million ($2.5 million) during FY92 to cover the expected costs of technical assistance to support the restructuring program, together with further provisions of K 2,440 million ($12.0 million) in FY93 and FY94 to support later stages of the program once the key elements of the restructuring program have been agreed.

B.3 Conclusions

55 ZR's financial performance is poor and getting worse. It imposes a large and unwelcome drain on the government's overall fiscal revenues. Without major restructuring the present situation is likely to get worse. The main elements of a restructuring program should include the following:

(i) Reform of the corporation's accounts to ensure they present an accurate picture of ZR's overall financial health. ZR currently has a negative cash flow. This needs to increase to an estimated $23 million per year to ensure ZR can service its debts and replace assets. To earn a reasonable return on equity, the figure would have to increase by a further $30 million per year.

(ii) ZR needs to concentrate on its core business as a freight railway. Among other things, this means staying away from operation of pre-cast concrete factories, quarries and the parcels business (unless the latter is done in conjunction with a private sector partner). It also means reviewing the future of ZR's passenger business and either reducing services, or operating them at a loss under a specific PSO grant financed by the government.

(iii) ZR's workshops, though well equipped, are not functioning satisfactorily. It is suggested that ZR get out of operating workshops and sub-contract overhaul and maintenance of rolling stock to a third party. Alternatively, it may simply wish to lease locomotives and rolling stock from a third party, leaving the third party with responsibility for ownership and maintenance.

(iv) Every effort should be made to improve operational performance to avoid having to hire locomotives and rolling stock. Costs could also be reduced through tighter operations, improved planning and monitoring and reducing surplus labor.

(v) There is a need to rehabilitate priority sections of track to reduce speed restrictions and facilitate provision of improved freight services.

(vi) There is no justification for the government's development plan to support ZR's TYDP. It is recommended that a provision of K 300 million be made during FY92 to cover the costs of technical assistance to support preparation of a restructuring program, followed by

provisions of K 1,440 in FY93 and FY94 to support initial implementation of the restructuring program.

C. Zambia Airways

56 Zambia Airways Corporation Ltd. (ZA) is the national carrier of Zambia. It operates six passenger aircraft (one leased DC-10, one leased and one owned B-737, one Presidential DC-8 also used for scheduled services, and two owned ATR-42 commuter aircraft used for domestic services) and one leased B-757 cargo aircraft operated through a wholly-owned subsidiary, National Air Charters Ltd. ZA also owns a small tour business, Africa Bound Ltd, which is registered in the U.K. The airline operates inter-continental, regional and domestic air services and is the largest (in terms of traffic carried) of the five airlines which operate inter-continental services and belong to the South Africa Development Coordination Conference (SADCC). It earns about 10 percent of its revenue from freight and mail, down from nearly 20 percent in the mid-1980s. Since Africa Bound was not considered effective (selling too many heavily discounted tickets), it was decided to liquidate the company as of 31 December 1991.

57 ZA carries about 360,000 passengers per year (see Table 8). Tourists are the major passenger group and account for about 70 percent of traffic. There are about 100,000 inter-continental passengers (nearly 80 percent on the London, Rome and Frankfurt sectors, most of the remainder being on the Bombay sector and a few on the Jeddah sector), 110,000 regional passengers (about 50 percent on the Johannesburg and Harare sectors, a reasonable number on the Nairobi sector and a few on the remaining sectors) and 150,000 domestic passengers (mainly on sectors to Livingstone, Mfuwe, Ndola and Chipata). Inter-continental services to New York and Cyprus have recently been withdrawn, and so have some regional routes serving Zaire, Gaborone and Blantyre.

Table 8. Passengers on Intercontinental, Regional and Domestic Services
(Number)

Sector	1988/89	1989/90	1990/91	Status
Inter-Continental				
Lusaka-London	37,589	44,428	42,875	
Lusaka-Rome	14,646	13,102	9,804	
Lusaka-Frankfurt	5,532	3,760	9,271	
Lusaka-New York	8,206	11,450	14,632	(Discontinued)
Monrovia-New York	2,882	6,054	-	(Discontinued)
Lusaka-Bombay	13,419	13,788	16,243	
Lusaka-Larnaca	4,801	2,611	2,125	(Discontinued)
Larnaca-Rome	1,684	-	-	(Discontinued)
Lusaka-Jeddah	261	1,098	1,123	
Sub-Total	89,020	96,291	96,073	
Regional				
Lusaka-Monrovia	1,326	2,796	1,228	(Discontinued)
Lusaka-Johannesburg	26,735	29,979	34,187	
Lusaka-Harare	25,140	24,141	24,521	
Lusaka-Nairobi	13,876	14,034	17,386	
Lusaka-Mauritius	8,159	8,233	6,913	
Lusaka-Dar-Es-Salaam	3,221	2,774	3,104	
Lusaka-Lilongwe	4,748	6,137	6,557	
Lusaka-Manzini	3,134	3,593	5,984	
Lusaka-Gaborone	5,387	6,958	6,415	
Lusaka-Lubumbashi	768	2,578	2,418	
Ndala-Lubumbashi	164	-	-	(Discontinued)
Manzini-Gaborone	147	-	-	(Discontinued)
Lusaka-Blantyre	220	-	-	(Discontinued)
Lusaka-Windhoek	-	3,874	7,005	
Lusaka-Entebbe	-	178	2,211	
Sub-Total	95,025	105,275	117,929	
Domestic				
Lusaka-Ndola	104,116	101,200	98,855	
Lusaka-Kitwe	2,226	1,047	650	
Lusaka-Livingstone	19,727	19,920	23,098	
Lusaka-Chipata	4,907	7,606	6,247	
Lusaka-Mfuwe	13,773	13,045	12,721	
Other	14,422	19,023	10,544	
Sub-Total	159,171	161,841	152,115	
Grand Total	343,216	363,407	366,117	

58 The airline employs about 2,300 staff (including staff in the airline, air freight business and tour business) and is over-staffed. Airlines generally employ about 150 to 200 staff per aircraft and, with seven aircraft in service, this means ZA should not employ more than 1,000 to 1,500 staff. With 2,300 staff, it is therefore clearly over-staffed and, although remuneration is low relative to other expenses, over-staffing reduces productivity and causes management to spend too much time on personnel matters. Until recently, ZA operated sales offices in eighteen major cities, including unlikely places like Tokyo and New Delhi. It has recently attempted to rationalize its network of sales offices and New York is due to be closed, Tokyo, New Delhi, Bulawayo, Jeddah and Manzini have been closed, others such as Gaborone may also be closed, and the London office will be reduced in size.

59 The corporation has recently attempted to rationalize its air freight business. The operation was originally set up with two leased aircraft, a DC-8 freighter and a B-757 freighter, to import highly rated cargo for the mining industry from Europe to Zambia. Return cargoes consisted almost entirely of agricultural products concentrated during four months of the year. However, political changes in South Africa and other factors have resulted in major structural changes in the underlying trading pattern for the high rated goods from Europe, with the mining industry now purchasing most of its imports from India and South Africa. Demand for southbound cargo from Europe has dropped and the secondary cargo — low rated agricultural produce from Africa to Europe — has become the main business. Faced with a sharp fall in cargo receipts, ZA therefore terminated the lease on the DC-8 and continues to operate a scaled back service using the B-757.

60 Fleet utilization, other than for inter-continental services, is low. The inter-continental DC-10 is currently utilized for an average of 7.2 hrs per day. This is reasonably close to the world average of 10.5 hrs per day. Utilization of the two B-737s (mainly used to provide regional services) is much lower. They are utilized for a mere 2.5 hrs per day, which is not only lower than the 3.9 hrs achieved in 1989, but is well below the 7 to 8 hrs achieved on short-haul services in Europe. The ATR-42s, on the other hand, are being used for an average of 4 to 6 hrs per day, which is close to the world average of 5.5 hrs, even though some services are confined to daylight hours through lack of airfield landing lights.

61 In April 1991, the government of Zambia became a signatory to the African Joint Aircraft Services (AJAS) agreement. The other signatories are the governments of Uganda and Tanzania. The agreement provides for joint ownership of one or more aircraft to serve the operations of all three airlines on routes to Europe, the Middle East and India. Current intentions are to lease a wide-bodied DC-10, Airbus, or B-767 and to lease a second stand-by aircraft to cover an expected peak during six weeks of the year. The aircraft will be operated by the individual member airlines using their own staff, or will be operated on a pooled basis to India and the Middle East. The three member airlines have already agreed on the basic route structure and sharing arrangements. It is not clear, particularly on European routes, whether AJAS will secure additional traffic rights, or will have to rely on the existing rights of their member airlines.

C.1 Current Financial Performance

62 ZA is in a critical financial condition (see Annex 3). In 1989/90 it incurred a loss of K 287 million ($22.3 million) on a turnover of K 2,110 million and this increased to K 2,112 million ($72.8 million) on a turnover of K 4,976 million in 1990/91. Estimates for 1991/92 suggest that losses for the year may fall to K 1,700 million ($34 million). The expected improvement between 1990/91 and 1991/92 is encouraging, although ZA's financial projections may not be

reliable. Since 1988/89, operating costs have been increasing almost twice as fast as revenues and this has had a devastating effect on cash flows. Accounts payable increased by K 1,530 between 1988/89 and 1990/91 until, at the end of 1990/91, ZA owed over K 1,813 million ($62.5 million). Working capital likewise decreased from K 14 million ($1.7 million) in 1988/89 to a negative K 1,971 million ($68.0 million) at the end of 1990/91. ZA is technically bankrupt and has only managed to keep afloat by running up overdrafts and short-term debts to government-owned banks (mainly Bank of Zambia), or to commercial banks with government guarantee. Short-term indebtedness and overdrafts amounted to K 1,384 million ($48 million) in 1990/91 and were K 2,326 million ($47 million) for the twelve months ended 31 December 1991.

63 ZA's poor financial performance has a direct effect on the country's foreign exchange position. Hard currency expenses are charged through the IATA Clearing House and this ensures (by implicit government agreement) that they become payable in hard currency by the Bank of Zambia. Since any inter-airline transactions can be settled through the IATA Clearing House, ZA uses this method to pay other airlines for services rendered and goods supplied. The settlement process is used to pay for maintenance performed by Alitalia, aircraft leased from other airlines, fuel purchases in Bombay billed by Air India, and technical services rendered by other airlines. In 1988/89, the Bank of Zambia paid IATA $43.7 million net, of which $29.6 million (nearly 68 percent) represented payments for *miscellaneous services*. By 1990/91, payment for miscellaneous services had increased to $45.4 million out of a total net payment of $53.2 million (i.e., to 85 percent of the total). However, without this arrangement, suppliers would not be willing to provide services on credit to ZA and this will remain the case until ZA's financial performance has improved. These payments show up as loans to ZA from the Bank of Zambia.

64 There are several reasons for ZA's poor financial performance: (i) an unsuitable route structure; (ii) lack of cost-effective sales offices; (iii) a high-cost air freight business; and (iv) low utilization of aircraft. The financial results for the first two quarters of 1991/92 are summarized in Table 9. They present a reasonable picture of the profitability of the existing route structure. On average, they show that inter-continental routes lose money, regional routes are mixed, and domestic routes generally make small profits. The inter-continental services using ZA's DC-10 generally make some contribution towards standing charges and fixed costs, although the size of the contribution on the Bombay sector is too small. It aiso shows that the leased L-1011 is not profitable on inter-continental routes. The regional routes are reasonably satisfactory, although both the Gaborone and Mauritius services are unprofitable. Finally, domestic services nearly all make some contribution to standing charges and fixed costs, although the B-737s make a lower contribution than the ATR-42s.

Table 9. Estimated Operating Results, FY91 First Two Quarters
($'000)

Route	Aircraft Type	First Quarter: Gross Revenues less Variable Costs	First Quarter: Standing Charges plus Fixed Costs	First Quarter: Surplus/ (Deficit)	Second Quarter: Gross Revenues less Variable Costs	Second Quarter: Standing Charges plus Fixed Costs	Second Quarter: Surplus/ (Deficit)
Intercontinental:							
Lusaka-London	DC-10	196,752	184,594	48,494	292,613	276,764	34,594
Lusaka-London	L-1011	16,582	16,582	(19,783)	-	-	-
Lusaka-Bombay	DC-10	61,385	55,171	(2,979)	45,356	39,452	(63,307)
Lusaka-Bombay	L-1011	(4,424)	(4,424)	(17,300)	-	-	-
Lusaka-Rome-Frankfurt	Dc-10	60,174	54,161	(10,325)	134,480	126,891	1,796
Lusaka-Larnaca-Rome-Frankfurt	DC-10	(6,174)	(8,174)	(31,009)	-	-	-
Sub-Total		322,295	297,910	(32,902)	472,449	445,107	(28,915)
Regional:							
Lusaka-Johannesburg	DC-10	27,624	25,742	261	82,233	79,493	21,976
Lusaka-Johannesburg	L-1011	4,222	4,222	(312)	-	-	-
Lusaka-Johannesburg	B-737	3,013	2,641	933	-	-	-
Lusaka-Harare	B-237	4,533	2,936	(2,131)	12,432	10,430	3,131
Lusaka-Gaborone	B-737	(1,183)	(2,248)	-	-	-	-
Lusaka-Windhoek	B-737	3,326	2,009	(4,016)	7,903	6,303	(2,155)
Lusaka-Nairobi-Dar-es-Salam-Lusaka	B-737	6,766	7,909	(1,433)	16,616	14,272	1,351
Lusaka-Nairobi-Entebbe-Lusaka	B-737	10,757	8,634	(191)	12,794	10,265	(2,082)
Lusaka-Mauritius	B-737	(2,576)	(5,371)	(18,388)	1,232	(1,529)	542
Lusaka-Lilongwe	B-737	-	-	-	(43)	(94)	(370)
Lusaka-Ndola-FBM	B737	-	-	-	351	260	(297)
Lusaka-Lubumbardi	ATR42	1,732	1,001	(196)	2,046	1,529	542
Lusaka-Lilongwe	ATR42	2,538	1,796	(313)	4,440	3,705	537
Sub-Total		62,756	48,273	(32,255)	140,206	124,647	5,122
Domestic:							
Lusaka-Ndola	B-737	19,576	16,331	(1,045)	27,622	23,742	(1,461)
Lusaka-Livingstone	B-737	11	(269)	(1,504)	636	296	(1,598)
Lusaka-Mfuwe	B-737	21	(4)	(105)	7,699	6,521	(1,182)
Lusaka-Ndola	ATR-42	18,243	14,738	3,966	22,025	18,469	4,604
Lusaka-Livingstone	ATR-42	11,964	9,733	1,319	20,445	17,641	4,644
Lusaka-Mfuwe	ATR-42	7,110	5,635	533	5,201	4,583	1,858
Lusaka-Chipata	ATR-42	4,523	3,392	(561)	2,165	1,445	(1,794)
Lusaka-Mfawe-Chipata-Lusaka	ATR-42	2,148	1,876	822	3,543	2,994	545
Lusaka-Ndola-Mansa	ATR-42	3,165	2,707	1,153	3,669	2,814	(622)
Lusaka-Ndola-Kasama-Kasaba Bay	ATR-42	7,761	6,057	664	7,662	6,042	(634)
Sub-Total		74,542	60,196	5,242	100,867	84,549	4,360
Grand-Total		459,593	406,379	(59,915)	713,522	654,303	(17,433)

65 The current costs of sales services, advertising and publicity are about 30 percent of sales revenues (up from about 20 percent in 1989/90). The major part of these costs are incurred outside Zambia paying sales commissions and operating costly international sales offices (see Table 10). The costs of international sales is almost exactly equal to revenues earned. In 1988/89 net earnings were a mere $87,000 (on a turnover of $39 million) and this only increased to $223,525 in 1990/91. In 1990/91 the main loss-makers were London ($7.4 million) and New York ($1.3 million). Windhoek and Dar-es-Salaam also lost money and New Delhi, Bombay and Manzini produced little net income.

Table 10. Zambia Airways: Cash Flow From International Sales Office
($'000)

Sales Office	1988/89 Receipts	1988/89 Expenses	1988/89 Net Revenue	1990/91 Receipts	1990/91 Expenses	1990/91 Net Revenue	Curent Status
Lubumbashi	114	156	(42)	627	158	469	
Dar-Es-Salaam	188	158	30	142	158	(16)	
Bombay	110	137	(27)	1,614	1,464	150	
Gaborone	657	772	(115)	1,273	530	743	Downsized or closed
Rome	9,495	9,536	(41)	4,308	2,847	1,461	
London	17,243	15,850	1,393	13,132	20,509	(7,377)	Downsized
Harare	1,093	3,520	(2,427)	1,506	701	805	
Monrovia	1,946	1,538	408	-	-	-	
Manzini	820	142	678	515	307	208	Closed
Johannesburg	2,844	2,903	(59)	5,965	2,175	3,790	
New York	2,851	2,878	(27)	4,929	6,238	(1,309)	Downsized; To be closed
Blantyre	536	547	(11)	1,232	795	437	
Nairobi	811	483	328	1,147	532	615	
New Delhi	-	-	-	347	313	34	Closed
Frankfurt	-	-	-	478	212	266	
Windhoek	-	-	-	668	720	(52)	
Total	38,708	38,620	88	37,883	37,659	224	

Notes: (a) Other Sales Offices in Tokyo, Bulawayo and Jeddah have already been closed

C.2 Options for Reform

66 Recent attempts to cut losses have focussed on liquidating Africa Bound Ltd, terminating flights to New York (and canceling the lease on the second DC-10 which was costing $0.5 million per month), reducing the scope of the corporation's air cargo operations (by terminating the lease on the DC-8 freighter), closing international sales offices and reducing sales staff, and attempting to improve utilization of the two B-737s by pooling with other airlines on regional routes (with Air Botswana and Royal Swazi Airlines). Current plans are focussing on extending pooling arrangements and refinancing the remaining DC-10. To survive, ZA must nevertheless do more. A major restructuring is unavoidable if the airline is to avoid liquidation. Restructuring needs to focus on: (i) cutting unprofitable routes; (ii) reducing sales costs to no more than 20 percent of revenues; (iii) over-hauling the air freight business; (iv) improving utilization of aircraft; and (v) exploring all other opportunities to cut costs.

67 Now that the New York and Larnaca services have been terminated and ZA has stopped using a L-1011 on some routes, the inter-continental services are in better financial health. However, there are still question marks over the Bombay service and, unless steps can be taken to increase load factors or reduce costs, ZA should consider terminating this service. On regional routes, the service to Mauritius should be dropped and the future of services to Gaborone, Windhoek and Entebbe need to be carefully reviewed. Little needs to be done immediately about domestic routes, other than to review the Ndola-Chipata route and make sure that B-737s are only used on sectors where they are profitable. ZA's network of international sales offices also need to be over-hauled. A number of offices have already been closed or down-sized, but questions remain about Bombay, Windhoek and London. In 1990/91 the London office lost over $7 million and this cannot continue. If net sales revenues can not be substantially increased, ZA should consider marketing most of its services in other countries under an agency agreement with another airline.

68 ZA's air freight operations have suffered unexpected setbacks in recent years. Recent political changes in southern Africa — which have caused major structural changes in the air freight market — appear to be irreversible and the future of ZA's air cargo business needs to be re-evaluated. The major question is whether it still makes sense to continue serving the corporation's much reduced air freight business by operating a dedicated air freighter (rather than carrying freight as a joint product on passenger aircraft) and, if so, whether the present B-757 is the best aircraft to use. B-757s are expensive when used as long-distance freighters and it may make more sense to terminate the lease on the B-757 and use a second-hand hush-kitted B-707 instead.

69 Pooling arrangements with other regional airlines are a suitable way of increasing utilization of aircraft. However, since all SADCC airlines suffer from excess capacity and low aircraft utilization (mostly of B-737 type aircraft), pooling will only succeed if some airlines dispose of under-utilized planes. ZA must therefore seriously consider getting rid of one or both of its two B-737s. Other efforts to cut costs are likely to be relatively less important. ZA should nevertheless explore every opportunity for improving crew utilization, cutting victualling costs and generally streamlining the organization and staffing of the corporation. It should also cut down on the miscellaneous expenditures which it currently charges through the IATA Clearing House.

70 The serious financial state of the airline also raises questions about AJAS. Joint ownership of an inter-continental wide-bodied aircraft is a risky business. Both other partners (Uganda and Tanzania) suffer from acute shortages of foreign exchange and may have difficulty meeting their foreign exchange obligations in a timely manner, securing traffic rights in Europe is likely to be more difficult than expected and, based on experience with Air Afrique, joint airline agreements usually experience numerous teething problems. On the other hand, a shared aircraft could generate more business to the Indian sub-continent and provide the attraction of a wide-bodied jet on other inter-continental routes. However, AJAS only makes commercial sense, if the new wide-bodied aircraft substitutes for ZA's existing capacity. Otherwise it will merely increase costs without generating any additional revenues. AJAS is the sort of venture only attempted by airlines in sound financial health and able to cover their losses during an initial start-up period.

71 The recent SADCC regional airline study recommended that airlines be allowed to operate as commercial entities and that their restructured boards should put pressure on management to deliver an adequate rate of return on capital. To improve performance, it stressed that the key lay in reductions in excess capacity (to improve utilization), but stressed that, given the lumpy nature of capacity, the only way to achieve lower aggregate capacity was through joint use/sharing/pooling arrangements. The report also stressed that, while a joint airline might give the lowest long run costs, 80 percent of the benefits could be achieved with commercially-based joint use arrangements negotiated by the airlines. The best medium-term strategy would thus be to change the regulatory environment of the airline to encourage it to operate in a more commercial way and to put pressure on management to improve commercial performance. The long-term solution should be to privatize the airline, provided there was a willing buyer. However, ZA could not be privatized until it had been restructured and turned into a profitable enterprise. This might take two to three years. In the meantime it may nevertheless be desirable to widen ownership by selling up to 10 percent of the equity to employees to strengthen incentives (or issue them in the form of bonuses). The balance of the equity could then be sold to the public, or bids could be invited from international airlines or other potential buyers. The only qualification is that no international airline (or other corporate investor) is likely to invest in ZA for less than 51 percent of the voting shares.

C.3 Conclusions

72 In spite of ZA's current financial problems, it should be possible to turn the airline around. To do that it needs to be restructured, to concentrate on its core business and to explore every opportunity for reducing costs. The immediate need is to rescue the corporation from insolvency and to do so quickly. The need is for action, not for further studies. The main elements of the restructuring plan should include:

(i) Rationalizing ZA's route structure to build on profitable routes and terminate those that are losing money and are unlikely to ever cover their fully allocated costs. The future of the inter-continental route to Bombay needs to be reviewed, the regional route to Mauritius needs to be discontinued and those to Gaborone and Windhoek need to be reviewed. Domestic routes merely need fine tuning.

(ii) Sales costs need to be drastically reduced to no more than 20 percent of revenues. Costs at Bombay, Windhoek and London need to be pruned and ZA should explore the option of marketing its services through an agency agreement with another airline.

(iii) The air freight business needs to be overhauled. The main questions are whether existing traffic justifies operation of a dedicated air freighter and, if so, whether the present B-757 is the best aircraft to use.

(iv) Utilization of aircraft needs to be increased. With the growing use of pooling arrangements with other regional airlines, ZA has to seriously consider disposing of one, or both of its two B-737s.

(v) Efforts should also be made to reduce surplus staff, improve utilization of crews, cut victualling costs and to generally improve operational performance.

(vi) AJAS appears to be premature. It is a high risk operation being done, in conjunction with countries which are seriously short of foreign exchange. The proposed leasing of a wide-bodied jet should be delayed.

(vii) In the medium-term, the government needs to change the regulatory environment to allow ZA to operate more commercially and to put pressure on management to produce better commercial performance.

(viii) In the long-term, the plan should be to privatize ZA, provided a suitable partner can be found. Ten percent of the equity might initially be sold to staff to strengthen incentives (or be issued to them in the form of bonuses), while the remainder could be disposed of after the corporation has been restructured and its financial prospectus has improved. Corporate investors are unlikely to settle for less than 51 percent of the voting shares.

IV. ROAD TRANSPORT INDUSTRIES

73 There are three government-owned road transport enterprises: (i) Contract Haulage Ltd. (CHL) which provides road haulage services; (ii) United Bus Corporation of Zambia Ltd. (UBZ) which provides inter-city bus services; and (iii) Mulungushi Traveller Ltd. (MT) which also provides inter-city bus services. The two main corporations are CHL and UBZ. MT was established in 1988 when the government split up the operation of UBZ as part of a restructuring program and handed over the operation of bus services in the Copperbelt to MT. MT has a fleet of 50 buses and uses about 30 to provide regular bus services and the remainder for contract hire. By all indications it is a relatively efficient operator but, since it is small and raises no issues for the government's public expenditure program, it will not be examined in this report. Instead, this chapter focuses on CHL, UBZ and arrangements for supporting private urban bus services.

A. Contract Haulage Ltd.

74 At the end of 1991, CHL had 206 trucks with an average payload capacity of 30 tonnes (see Annex 4, page 1). Many vehicles are old and only 155 are operational (i.e., fleet utilization is 75 percent). The corporation provides general haulage services in both domestic and international markets (Namibia, South Africa, Botswana, Tanzania and Malawi). About one third of their business is done on behalf of other public corporations (i.e., other Zimco group companies), while the other two thirds is for other clients. Vehicle utilization is about 50,000 km per vehicle p.a., which is about average for heavy trucks elsewhere in Africa (50,000 to 60,000 km p.a.). The tonnage per vehicle in 1989/90 was 2,154 tonnes (down from 2,389 tonnes in 1988/89), which also appears reasonable. On the other hand, the number of staff per vehicle was 5.8 in 1988/89 and this rose to 6.4 in 1989/90. This is far too high and the corporation has already set itself a target to reduce this figure to 3.5 staff per vehicle.

75 CHL operates in a reasonably competitive market. Freight rates are effectively deregulated and set by the market place. Even the rates for haulage of maize have recently been deregulated. Most rates are now in the range $0.06 to $0.07 per tonne km and are determined through negotiation with customers. There is wide-spread competition in both domestic and international markets. There are an estimated 600 to 800 trucks providing domestic road haulage services and, although these vehicles tend to be smaller and older than the CHL fleet, utilization appears to be better with higher annual veh kms and load factors. A large number of enterprises (both public and private) and co-operatives also operate own-account fleets. International road transport has also grown rapidly in recent years and there are now an estimated 1,600 heavy trucks providing international trucking services to, from and through Zambia. Indeed, fierce international competition effectively caps the rates which domestic hauliers can charge.

A.1 Current Financial Performance

76 CHL is in reasonable financial health and, during the past five years, has been a consistently good performer (see Annex 4). Profit before tax increased from K 9 million in 1986/87 ($1.3 million) on a turnover of K 52 million to K 72 million ($5.6) in 1989/90 on a turnover of K 241 million ($18.7 million). Rate of return on total assets likewise increased from 19 percent in 1987/88 to 41 percent in 1989/90. Fixed assets are revalued on a cyclical basis and are revalued at least every three years. Total fixed assets increased from K 70 million ($9.6 million) in 1986/87 to K 206 million ($16.0 million) in 1989/90. Most new investment was

financed from internally generated funds, with internal financing increasing from 45 percent in 1986/87 to 80 percent in 1989/90. Depreciation provisions appear adequate (the ratio of depreciation to fixed assets is about 10 percent), although they have fallen slightly in recent years. Depreciation provisions are sufficient to finance 10 to 20 new vehicles per year and, since the corporation's debt to equity ratio is still quite low, there is scope for financing additional vehicles through borrowing.

77 In spite of the overall good performance, there are danger signals on the horizon. Accounts receivable increased by K 47 million ($3.6 million) during 1989/90 to reach a total of K [illegible]3 million and this reduced the current ratio from 2.2 to 1.3. Most of these debts were run up by the Zambian Co-Operative Federation and some of them may eventually have to be written off as bad debts. The corporation is also over-staffed and fleet utilization could be improved. Finally, the corporation has enjoyed a number of hidden subsidies which have either already been withdrawn, or should be in the near future. The most important subsidies included preferential access to foreign exchange at the official rate, retention of foreign exchange earnings and access to concessional loans.

A.2 Options for Reform

78 CHL is the transport sector's top performer and requires no major restructuring. Whatever steps are needed are under the control of management and they should be encouraged to address these problems without government involvement. Management is fully aware of the areas in need of attention and: (i) has already set a target for reduction of surplus staff; (ii) is installing radios in existing vehicles and tachographs in new vehicles to help improve vehicle utilization; (iii) is introducing a driver incentive scheme to reduce accidents, increase volume of cargo carried and improve cleanliness; and (iv) is setting norms to control usage of fuel and other stores. This is commendable and should be complemented by efforts to reduce accounts receivable and dispose of over-aged vehicles (to improve overall fleet utilization).

79 It is rare nowadays for governments to own trucking companies. Road haulage does not have to be in the public domain and it is time to start considering the long-term future of CHL. There is no justification for providing public funds, or soft loans to one of several competing road hauliers. Indeed such actions simply damage other domestic road transport operators. There is thus no case for making any provisions in the government's development budget to support CHL. Offers of bilateral assistance (in the form of dedicated vehicles and/or spare parts) should be firmly resisted in favor of general support to the road haulage industry — preferably in the form of a line of credit — available to all road hauliers on an equal basis. CHL should be encouraged to operate on a wholly commercial basis and should finance new investments through retained earnings and medium to long-term commercial borrowing (possibly through the Development Bank of Zambia).

80 CHL should be a key target for diversification of ownership and the government may wish to set out a timetable for implementing it. Diversification of ownership can nevertheless not be accomplished overnight. Studies have shown that, even after it has been firmly decided to diversify ownership, it usually takes 2 to 3 years to complete the process. Rushed changes of ownership invite low sale prices and asset stripping. The government should therefore consider a sequential approach involving the following steps: (i) announce that CHL is expected to operate on a fully commercial basis without the need for any financial support or other perks from government; (ii) at the same time announce the intention to diversify ownership of the corporation; (iii) about six months later invite bids from existing management and staff; (iv) if

they express no interest, explore other ways of diversifying ownership through outright sale, or sale of shares.

A.3 Conclusions

81 CHL is a well run corporation and requires little government attention. Most of the required reforms are under the control of management and they should be encouraged to implement them without government involvement. Options for improving performance include:

(i) Encouraging management to go ahead with plans to reduce surplus staff, reduce accounts receivable and introduce measures to improve vehicle utilization.
(ii) Government should announce that CHL is expected to operate commercially without the need for financial support from government. No provisions should be made in the government's development budget to support CHL.
(iii) Offers of dedicated bilateral assistance for vehicles and spare parts should be firmly resisted in favor of a line of credit available to all road hauliers on an equal basis.
(iv) Government should set a firm 2 to 3 year time-table for diversification of ownership through a management and/or staff buy-out, outright sale, or sale of shares.

B. United Bus Company of Zambia Ltd.

82 The United Bus Company of Zambia Ltd. (UBZ) operates inter-city and peri-urban bus services. It currently has about 440 vehicles, of which 250 are operational and 165 in service (see Annex 5, page 1). About 80 vehicles operate inter-city services with route lengths of up to 800 km, while the remainder operate peri-urban services with route lengths of between 300 and 400 km. Although the corporation also used to operate urban bus services, these have effectively ceased and all urban bus services are now provided by the private sector.

83 Fleet utilization is about 66 percent which is significantly lower than the figure of 80 to 90 percent usually associated with public bus companies. The low utilization appears to be related to lack of standardization (UBZ operates a large number of vehicle types and is only now standardizing them) and poor maintenance. The corporation is also over-staffed, although less so than in the recent past. In 1987/88 it employed 26 staff per vehicle in service and this has now been reduced to 12 per vehicle. Similar bus companies elsewhere in the world usually employ between 5 and 10 staff per vehicle. Vehicle utilization has also fallen. The number of vehicle km per vehicle per day fell from 440 in 1987/88 to 393 in 1990/91, while the number of passengers per vehicle per day fell more sharply from 571 in 1988/89 to 272 in 1990/91.

B.1 Current Financial Performance

84 UBZ, like most other transport enterprises in Zambia, has competent financial staff and produces good financial accounts (see Annex 5). Fares were regulated and kept low during the early 1980s and this resulted in heavy losses and a chronic shortage of working capital and liquid funds. By 1987 the corporation was technically bankrupt and in 1988 the government had to provide K 317 million ($39 million) to rescue it. The government took over loans of K 191 million, accounts payable of K 40 million, exempted the corporation from K 28 million of overdue taxes and provided a cash injection of K 60 million to enable the corporation to rehabilitate some of its buses. In addition, the government exempted the corporation from payment of import duties and sales taxes on vehicles and spare parts, provided a new Japanese

loan of $1.0 million and a US Aid grant of K 1.4 million, allocated for exchange to finance purchase of spare parts and agreed to a fare increase of 40 percent.

85 The above financial restructuring had a dramatic effect on performance and in 1989/90 (after further fare increases of 140 percent) the corporation turned in a net profit of K 72 million ($5.2 million) on a turnover of K 378 million ($27 million). The corporation also earned 30 percent rate of return on total assets. Thereafter, performance began to decline with net profits falling to K 41 million ($1.4 million) in 1990/91, turning into a net loss of K 78 million ($1.6 million) in 1991/92. The decline in financial performance occurred in spite of further fare increases in January 1990 (50 percent), September 1990 (100 percent) and November 1990 (55 percent). Indeed, fares are now so high that further increases are generating little extra revenue. The rate of return on assets likewise fell from 30 percent in 1989/90 through 19 percent in 1990/91 and was negative in 1991/92. It is now well below the target rate of 12 to 15 percent needed to generate sufficient revenues to finance replacements.

86 Other indications of the corporation's worsening financial condition include an increase in creditors and increased reliance on short-term loans. Accounts payable increased by K 68 million ($2.3 million) between 1989/90 and 1990/91 to reach a total of K 106 million ($3.7 million). Short-term loans also increased from almost zero in 1988/89 to K 104 million ($3.6 million) in 1990/91. This pushed the corporation into an illiquid position with a current ratio to 0.7. Since fixed assets increased by K 247 million between 1988/89 and 1990/91, it seems fairly clear that these assets were being financed through a combination of accounts payable (i.e., forced supplier credit) and short-term loans. That is not a satisfactory way of financing fixed assets.

B.2 Options for Reform

87 UBZ needs to make strenuous efforts to improve financial performance to avoid repeating the crisis which affected the corporation in 1988. Major issues requiring attention include: (i) fleet utilization needs to be increased from 66 percent to over 80 percent; (ii) operating costs must be reduced to hold down the need for further fare increases; (iii) staffing needs to be reduced to an average of less than 10 per vehicle in service; (iv) vehicle utilization needs to be increased to achieve about 450 km per vehicle per day with a load factor of between 500 and 600 passengers per vehicle per day; (v) accounts payable need to be reduced; and (vi) short-term loans need to be converted into long-term loans or equity.

88 Most of the above reforms require action by UBZ management. Only some require action by government. The main issues requiring management attention include the future of the corporation's workshops and arrangements to eliminate surplus labor. Low fleet utilization is usually a sign of poor maintenance. The corporation should therefore explore ways of improving vehicle maintenance by operating the workshops under a management contract, privatizing them and sub-contracting maintenance (to either the privatized entity or other private sector workshops), or leasing vehicles through a third party which would remain responsible for all overhaul and maintenance. In the case of surplus labor, all ghost workers (or one-day per month workers) should first be removed from the payroll and a formal labor redundancy scheme introduced to handle additional redundancies.

89 The above actions by management need to be complemented by four supportive actions by government. First, government must make it clear they have no intention of bailing out the corporation a second time. The corporation must henceforth operate on a wholly commercial basis. Second, remaining fare regulations should be removed to ensure the corporation has

sufficient freedom to operate commercially. Third, UBZ may need some help converting its short-term loans into long-term debt. As far as possible, the government should confine assistance to provision of guarantees. UBZ should be left to negotiate appropriate re-financing arrangements with the commercial banking sector, or the Development Bank of Zambia. Finally, government should give serious consideration to diversifying ownership of UBZ. Long distance bus companies do not have to remain in public ownership. Government may therefore want to consider a management or staff buy-out of the corporation or, if that fails, outright sale to a third party. This could probably be accomplished over a period of 2 to 3 years.

90 There is no case for making any allocations in the development budget to support UBZ. The corporation should stand on its own feet and finance all new investments from retained earnings and medium and long-term commercial borrowing (possibly from the Development Bank of Zambia). As noted in the previous para., government assistance should be confined to provision of guarantees to enable them to borrow on a long rather than short-term basis. A corollary of this strategy is that offers of vehicles and spare parts from bilateral donors should be resisted in favor of dedicated lines of credit available on the same basis to both UBZ, other public bus companies and private sector operators.

B.3 Conclusions

91 The performance of UBZ is in many ways better than expected, but is still well short of the sort of performance needed to ensure long-term survival. The corporation was bailed out in 1988 and, although performance improved significantly immediately thereafter, it has again started to decline. The corporation nevertheless does not require any major restructuring and reforms should focus on the following issues:

(i) Separating the operation of buses from their overhaul and maintenance.
(ii) Getting rid of ghost workers (or one-day per month workers) and introducing a formal labor redundancy scheme to deal with additional surplus labor.
(iii) Government should establish transparent financial objectives for UBZ and make it clear that the corporation is expected to operate commercially.
(iv) Government should abolish all fare regulations and leave them to be determined by the market place.
(v) Government may have to provide some assistance to help UBZ convert its short-term loans into long-term debt. As far as possible, such assistance should be confined to provision of guarantees.
(vi) Finally, government should consider diversifying ownership of UBZ by inviting a management or staff buy-out or, if that fails, outright sale to a third party.

C. Urban Bus Services

92 Urban bus services are characterized by shortage of bus capacity (52 percent of journeys in Lusaka are made on foot) and inflexible and unreliable services (e.g., average waiting times for buses are 60 mins). Their poor performance is mainly attributable to the restrictive regulatory environment administered by the Traffic Commissioners. The basic regulations were clearly designed to protect the United Bus Company monopoly at the time of independence. Licenses are only issued to private operators for operation along specific routes (no matter how many vehicles the company might own) and permission to operate on more than one route is only granted by special dispensation (to prevent the development of a competitive network of services).

Although the overall level of fares is no longer directly controlled (bus companies as a group merely notify the Minister of their proposed fare levels), individual operators are not permitted to offer different quality services at different fares. This means no one is willing to: (i) offer regular scheduled services (a scheduled service has a lower occupancy rate and must compensate by charging a higher fare); (ii) provide services on poor paved roads and on gravel roads (operating costs on these roads are higher, but fares cannot be raised to offset the higher costs); and (iii) offer greater comfort at a higher fare (by limiting seating to four instead of five across).

93 Government is mindful of the need to improve urban bus services and, in particular, to ensure they are operated more reliably. The best way of doing this is by relaxing the present regulatory environment and confining the regulations to matters of safety and quality of service. Financial support for urban bus services should furthermore be confined to financing (in conjunction with Urban District Councils) incremental additions to the existing commercial bus services. The additional services should furthermore be financed as explicit public service obligations. This ensures that fares on a commercially *viable* network continue to be determined by market forces. The additional services might consist of higher service frequencies, scheduled services, extended services (into new areas or earlier/later in the day), lower fares for all passengers, or lower fares for designated target groups (e.g., students, the elderly and handicapped, etc.).

94 Payment for the above public service obligations has implications for the government's recurrent budget. On a tentative basis, it is suggested that about K 120 million ($1.0 million) might be set aside from FY92 onwards to support the above urban transport strategy. It is furthermore suggested that: (i) support be provided on a cost-sharing basis in conjunction with the concerned urban District Councils; and (ii) the additional services be provided on a contractual basis. Contractual arrangements have been shown to be an effective way of controlling costs to ensure the government gets maximum value for money and the traveling public is the main beneficiary (contractual arrangements prevent the subsidy from lowering productivity and artificially inflating bus industry costs).

V. AIRPORTS AND OTHER CIVIL AVIATION

95 All airports were originally operated by the Department of Civil Aviation (DCA). In 1989 the Aviation (Amendment) Act was passed which permitted the transport minister to transfer any of these airports to a separate holding company, which could either be publicly or privately owned. As a result, the minister decided to transfer four international airports — Lusaka, Ndola, Livingstone and Mfuwe — to a newly created National Airports Corporation Ltd. (NACL), under the jurisdiction of Zimco. Responsibility for national air traffic control was also transferred to NACL. The remaining airports remained under the jurisdiction of the DCA. The legislation envisaged that further airports might be transferred to NACL, or other potential operators, when conditions were right (the legislation actually includes a presumption in favor of transferring airports "unless there are economically compelling reasons not to do so").

A. National Airports Corporation Ltd.

96 In September 1989, the four category I airports — Lusaka international airport, Ndola, Livingstone and Mfuwe — were transferred from DCA to NACL. These four airports handle over 30,000 aircraft movements per year (about two thirds being commercial flights), over 800,000 passengers and nearly 15,000 tonnes of freight (see Table 11). These airports handle over 90 percent of all aircraft movements in Zambia. About 70 percent are handled at Lusaka, 25 percent at Ndola and the remaining 5 percent at Livingstone and Mfuwe. The remaining 10 percent of all aircraft movements are handled at the category II and III airports operated by DCA.

Table 11. Amount of Traffic Handled at the Four Airports Managed by NACL
(Number of Aircraft and Passengers, '000 kgs of Freight and Mail)

Type of Traffic	Lusaka Int.		Ndola		Livingstone		Mfuwe		Total	
	1989	1990	1989	1990	1989	1990	1989	1990	1989	1990
Aircraft Movements:										
Commercial	13,520	14,120	4,226	4,114	742	1,279	855	744	19,343	20,257
Private	1,908	1,997	1,887	1,626	74	56	59	34	3,928	3,713
Civil	9,716	6,607	2,586	1,824	2	128	24	6	12,328	8,565
Total	25,144	22,724	8,699	7,564	818	1,463	938	784	35,599	32,535
Passengers:										
Disembarked	332,173	296,106	74,399	74,209	11,186	16,108	7,681	9,656	425,439	396,079
Embarked	293,766	299,851	75,483	74,832	10,944	15,465	7,658	9,622	387,851	399,770
Transit	20,541	18,864	-	-	-	-	-	-	20,541	18,864
Total	646,480	614,821	149,882	149,041	22,130	31,573	15,339	19,278	833,831	814,713
Freight:										
Loaded	4,892	4,988	326	290	38	42	3	2	5,259	5,323
Unlcaded	10,976	9,020	391	437	35	45	35	47	11,437	9,550
Total	15,868	14,008	717	727	73	88	38	50	16,696	14,873
Mail:										
Loaded	122	131	7	9	0.1	0.2	0.8	0.8	130	141
Unloaded	258	254	17	28	0.1	0.5	1.5	2.5	277	285
Total	380	384	24	37	0.2	0.7	2.2	3.3	407	426

A.1 Current Financial Performance

97 Many of the airport facilities taken over from the DCA were in a deteriorated condition. The assets were valued at roughly K 1,417 million at 1990 prices (roughly $49 million), although their replacement costs are thought to be over $100 million. Buildings and civil works were valued at K 1,146 million, navigational aids and telecommunication facilities at K 120 million and motor vehicles and other equipment at K 150 million. It is estimated that it will take nearly $16 million (including $14 million in foreign exchange) to rehabilitate these assets and raise them to a maintainable standard. There is also a need to spend a further $11 million on modernization and extension of facilities, particularly to improve telecommunications and navigational aids.

98 The transfer of the country's four main airports to NACL represented a major improvement over previous arrangements. The corporation keeps good accounts and has a reasonably commercial outlook (see Annex 6). Total revenues increased from K 79 million ($6.1 million) in 1989/90 to K 243 million ($8.4 million) in 1990/91 and produced net profits of K 21 million and K 51 million respectively. The rate of return on total assets in 1990/91 was 5 percent, up from an estimated 2 percent in 1989/90. The revenues consisted almost entirely of aircraft and passenger fees (landing, take-off, parking, navigation and passenger service departure fees). In 1990/91, a mere 16 percent came from other sources (mainly car parking fees). Furthermore, although revenues grew by a factor of three between 1989/90 and 1990/91, operating expenditures increased by a factor of five and administrative expenditures by a factor of four. Costs are rapidly escalating.

99 NACL's revenue figures must be interpreted with caution. There are at least three qualifications. First, although the corporation took over fixed assets valued at K 1,174, the value of these assets have not been agreed with the government and nor have the terms of their transfer. The corporation is currently treating these assets as equity (i.e., they are not servicing any loans), which reduces potential debt service charges. Second, the airport police (K 21 million in FY91) are being paid for under the government's police department budget allocation, rather than being charged to NACL. Third, accounts receivable (debtors) are uncomfortably high. The corporation took over debtors of K 55 million ($4.3 million) from the DCA in 1989/90 (none outstanding over 90 days) and these increased by a further K 32 million to K 87 million ($3.0 million) in 1990/91 (with 77 percent outstanding over 90 days). During the same period the corporation also increased accounts payable by K 25 million from K 7.6 million ($0.6 million, or 13 percent of total expenditures) to K 32 million ($1.1 million, or 18 percent of total expenditures). These trends have caused the current ratio to fall from seven to two.

100 The profitability of the airport is also dependant on its tariff. NACL tariffs are relatively high and the airports they manage are classified as high-cost airports (Table 12 summarizes landing & take-off charges for three typical aircraft types and passenger service departure fees at selected regional airports). However, although NACL airports are considered high-cost, they are broadly in line with charges in neighboring countries like Zaire, Angola and Mozambique. Airports in Kenya, Malawi and Zimbabwe charge fees which are so low they are unlikely to cover their costs. NACL furthermore does not charge for meteorological services.

Table 12. Charges at Selected Regional Airports in Africa
(U.S.$)

	Daytime Landing and Take-off Charges			Passenger Service Departure Fees
	DC-9	B707	B747	
High Cost Airports:				
Zambia (NACL)	200.00	775.00	1,975.00	20.00
Angola	160.00	766.00	1,707.00	6.75
Ghana	173.00	737.00	1,781.00	10.00
Mozambique	248.00	820.00	1,777.00	10.00
South Africa	274.00	874.00	1,897.00	0.00
Zaire	200.00	1,002.00	2,434.00	15.60
Medium Cost Airports:				
Burundi	138.00	601.00	1,384.00	15.00
Botswana	171.00	572.00	1,053.00	0.00
Rwanda	145.00	479.00	1,039.00	15.00
Uganda	210.00	840.00	1,155.00	20.00
Low Cost Airports:				
Kenya	54.00	214.00	495.00	20.00
Malawi	69.00	248.00	553.00	10.00
Zimbabwe	74.00	243.00	526.00	10.00

Source: Manual of Airport and Air Navigation Facility Tariffs, ICAO, 1990.

A.2 Options for Reform

101 NACL is a reasonably well-run corporation and there is no need to consider major structural reforms. However, it might be worth considering some restructuring to turn the corporation into a smaller, more focussed and hence more commercially oriented organization. In its present form, NACL manages large assets and the runways and traffic control system are

strategically important. The ownership of these strategic assets could, however, be handed back to DCA and a new contract could be negotiated between DCA and NACL to cover management of these assets. This would turn NACL into a smaller and more manageable property development corporation (owning airport land and terminals, and having a vested interest in a contract for management of runways and air traffic control equipment). In this form, ownership of NACL could probably be diversified.

102 Regardless of whether NACL is restructured, it may be desirable to widen ownership of the corporation to strengthen staff incentives. Shares could either be sold to staff, or issued as part of a bonus scheme. This would strengthen incentives, motivate staff to cut costs and should help improve financial performance. It is suggested that government consider selling about 10 percent of the equity to existing staff. Apart from widening ownership, there are also several other issues which need to be addressed to improve financial performance. A rate of return on assets of 5 percent is too low and needs to be raised to at least 8 to 10 percent to ensure the corporation generates sufficient revenues to operate on a sustainable basis.

103 The other issues which need to be addressed include: (i) the value of fixed assets need to be agreed and so do their terms of transfer (including a decision on whether runways and air traffic control equipment are to be handed back to DCA); (ii) arrangements need to be agreed for rehabilitating these assets; (iii) efforts are needed to diversify NACL's revenue base; (iv) the government needs to consider what to do about the costs of airport police; (v) steps need to be taken to control costs and deal with arrears; and (vi) there may be a case for charging some meteorological services to NACL.

104 The first two issues concern the transfer of fixed assets and the need to rehabilitate them. NACL should seek to agree on the value of the assets to be taken over from DCA. To ensure the corporation does not end up with a large debt burden, most (if not all) these assets should be transferred to NACL in the form of government equity. Some of the assets require rehabilitation and it seems unreasonable to saddle the corporation with the costs of financing this. The transfer should therefore be accompanied by an agreement on how to finance the estimated $16 million required for rehabilitation. The best solution would be to finance it through grants and concessional loans, with the government playing a facilitating role in brokering such arrangements. After that, NACL should be left to operate on a wholly commercial basis, financing new investments from internally generated funds and borrowing. They should ideally borrow from the commercial banking sector and, only when that is not feasible, through or lending from government.

105 The third issue concerns the corporation's current revenue base which is too narrow. Most commercial airports, particularly international ones, earn up to half their revenues from concessions (duty-free shops, restaurants, tourist shops, etc.), car parking and property rentals (for commercial activities linked to civil aviation). NACL has made a good start by introducing car parking charges, but it needs to make more effort to diversify its revenue base. The fourth issue concerns the costs of the airport police. Police services provided at NACL airports should be charged to NACL and they should recover these costs from users through regular airport charges.

106 The fifth issue concerns the rapid escalation of operating expenditures and NACL's arrears position. The corporation has 1,062 employees and is thought to be over-staffed. Operating expenditures have furthermore risen much faster than inflation. NACL therefore needs to make strenuous efforts to cut surplus staff and get costs under control. The possible widening of

ownership suggested above may help by strengthening staff incentives, but this should be complemented by other efforts to cut costs. With regard to NACL's current ratio, it is still satisfactory, but the corporation needs to reduce accounts receivable (and write off bad debts) and keep accounts payable at a manageable level to ensure it falls no further.

107 The final issue relates to meteorological charges. Aircraft currently pay no fees for meteorological services, even though they are some of the main users of such services. The practice in many countries is for the Meteorological Service to charge part of its costs against the country's civil aviation department (or authority) and for the department to then recover these costs through the charge for air navigation services. For example, in the U.K., 25 to 30 percent of the costs of the Meteorological Office are charged to the Civil Aviation Authority which recovers this by adding it to the Eurocontrol air navigation charge. It may therefore be worth charging at least 10 percent of meteorological services to NACL and requiring them to add this amount to air navigation charges. In 1990/91 the charge would have been K 3.7 million which would have increased air navigation charges by about 50 percent (increasing it from the current 15 percent of the landing fee to about 26 percent).

A.3 Conclusions

108 The overall conclusion is thus that NACL is not in need of any radical restructuring. Several issues nevertheless require attention:

(i) Ownership of NACL could probably be diversified if the ownership of runways and air traffic control equipment were transferred back to DCA and operated by NACL under a management contract. Regardless of whether NACL is restructured, the government may wish to consider selling 10 percent of the equity to existing employees, or issuing them in the form of bonuses, to strengthen staff incentives.

(ii) The value of the fixed assets to be transferred from DCA to NACL needs to be agreed and so do their transfer arrangements. The recommendation of this report is that they be transferred in the form of equity.

(iii) Some airport assets need to be rehabilitated and it is recommended that this be done using grants and concessional loans to avoid burdening the corporation with debt. The government will have to help secure this finance and should consequently provide in the development budget for a rehabilitation program of about $15 million spread over five years (FY92 to FY96).

(iv) NACL needs to diversify its revenue base to help generate more revenues.

(v) The costs of the airport police, at least those police employed at NACL airports, should be charged to NACL and recovered from users through airport charges. This will effectively increase government revenues.

(vi) NACL needs to make greater efforts to reduce surplus labor and cut costs. It also needs to improve its arrears position before this reduces the current ratio any further.

(vii) It is suggested that 10 percent of the costs of the meteorological department be charged against NACL and that they recover these costs through air navigation charges. This would have the effect of increasing government revenues.

B. Department of Civil Aviation

109 DCA regulates all civil aviation services and is responsible for operating and maintaining 40 regional airports. Nine are classified as category II airports and all but one (Zambezi) handles scheduled commercial traffic. The remaining category III airports handle light traffic and are effectively grass (or bush) landing strips. The traffic handled by these airports is summarized in Table 13. It shows that aircraft movements increased from just over 2,000 in FY89 to over 3,000 in FY90, while total passengers disembarked and embarked increased from 34,358 to 38,725. Kasama, Kasaba Bay and Mansa also handle a fair amount of freight. About 80 percent of the aircraft movements represent commercial traffic, the remainder being mainly private. Southdowns is the busiest airfield. In FY90 it handled 68 percent of the aircraft movements and 37 percent of the passengers. It handles more aircraft than either Livingstone or Mfuwe (NACL airports). At the other extreme, Zambezi handled 42 aircraft during FY90 (less than one per day) while Kalabo only handled 5. The six main airports handled 95 percent of the aircraft during FY90.

Table 13. Amount of Traffic Handled at Category II Airports Managed by DCA
(Number of Aircraft and Passengers, '000 kgs of Freight and Mail)

Type of Traffic	Southdowns		Chipata		Kasama		Mongu		Kasaba Bay		Mansa		Solwezi		Zambezi		Kalabo		Total	
	1989	1990	1989	1990	1989	1990	1989	1990	1989	1990	1989	1990	1989	1990	1989	1990	1989	1990	1989	1990
Aircraft Movements:																				
Commercial	842	1,773	311	340	268	213	206	130	121	262	142	168	44	18	-	-	-	5	1,627	2,461
Private	179	292	103	139	98	97	38	42	16	23	3	22	80	100	56	42	-	-	418	570
Civil	-	-	-	-	-	-	36	20	-	6	-	-	34	-	-	-	-	-	36	20
Total	1,021	2,070	414	479	366	310	280	192	137	291	145	190	158	118	56	42	0	5	2,081	3,051
Passengers:																				
Disembarked	3,014	7,155	4,199	6,245	6,929	5,075	3,457	1,204	963	2,675	3,243	2,392	261	202	77	56	-	14	17,599	19,679
Embarked	2,998	7,275	3,922	5,886	6,546	4,831	3,293	1,054	977	2,337	3,146	2,447	218	221	83	60	-	18	16,759	19,046
Transit	-	-	-	-	-	-	—	—	—	—	—	—	—	—	—	—	—	—	0	0
Total	6,012	14,430	8,121	12,131	13,475	9,906	6,750	2,258	1,940	5,012	6,389	4,839	479	423	160	116	0	32	34,358	38,725
Freight:																				
Loaded	1.1	3.5	2.7	4.1	27.7	26.6	2.5	1.7	3.5	7.8	4.4	3.0	1.1	-	-	-	-	-	34	36
Unloaded	1.3	6.3	6.0	9.3	30.0	32.1	7.6	13.6	10.4	18.5	24.5	22.7	2.4	-	-	-	-	-	45	61
Total	2.4	9.6	8.7	13.5	57.7	58.7	10.1	15.3	13.9	26.3	28.9	25.7	3.5	0.0	0.0	0.0	0.0	0.0	79	97
Mail:																				
Loaded	-	-	0.4	1.2	-	0.1	-	0.1	0.6	-	0.1	0.0	-	-	-	-	-	-	0.4	1.4
Unloaded	0.0	-	0.0	1.0	0.0	0.1	0.1	0.2	0.1	-	0.0	0.1	-	-	-	-	-	-	0.1	1.3
Total	0.0	0.0	0.4	2.3	0.0	0.2	0.1	0.3	0.7	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.7

B.1 Present Financial Position

110 The financial status of the above airports is summarized in Table 14 (expenditures include the costs of DCA's regulatory functions). The table also summarizes expenditures on meteorological services and the Air Service Training Institute (financed under the Ministry of Communications and Transport vote) and on airport police (financed under the Police Department vote). The table shows that airfield revenues are negligible. The revised FY90 estimate for aviation and landing fees was a mere K 0.2 million (the *actual* was K 170,000 which is less than $6,000). The estimate for passenger service departure charges was somewhat greater at K 1.5 million, while the *actual* increased to K 3.3 million (just over $113,000). Expenditures, on the other hand, amounted to K 46.7 million in FY90 ($1.61 million), leaving a deficit of over K 45 million.

Table 14. Civil Aviation Department: Revenues and Expenditures
(Kwacha, million)

	1985	1986	1987	1988	1989	Revised Estimate 1990	Estimate 1991	Business as Usual 1992		Revised 1992	
AIRPORTS:											
Income											
Navigation Charges	0.782	1.566	2.351	7.213	11.518	-	-	-		-	
Aviation & Landing Fees	1.157	3.216	8.242	13.234	11.468	0.200	0.700	0.700		14.700	
Pax Service Charges	2.357	2.173	7.896	9.598	9.811	1.500	1.500	1.500		4.800	
Other	-	0.273	0.222	1.508	0.706	0.030	0.300	-		-	
Total	4.296	7.228	18.711	31.553	33.503	1.730	2.500	2.200		19.500	
Expenditure											
Personal Emoluments		4.402	5.065	6.079	7.296	16.448	18.889	34.945	*	34.945	
Recurrent Expenditures											
Allowances		0.136	0.346	0.546	0.806	1.877	2.610				
Purchase of Goods		1.335	1.465	3.722	3.915	3.679	7.135	47.140		47.140	
Purchase of Services (a)		1.711	1.764	4.834	3.916	5.830	9.402				
Training Expenses		-	-	0.250	0.200	0.200	0.130				
Grants & Other Payments		0.086	0.400	0.700	0.707	0.897	1.200	4.797		4.797	
Moveable Assets		0.150	0.530	0.100	0.039	3.130	3.300				
Project Investments		32.680	31.362	51.750	52.000	10.680	28.000	68.355		68.355	
Prov. Civil Av. Expen. (b)		-	-	-	-	4.000	21.071	28.218	*	28.218	
Total		40.500	40.932	67.981	68.879	46.741	91.737	183.455		183.455	
Surplus/(Deficit)		(33.272)	(22.221)	(36.428)	(35.376)	(45.011)	(89.237)	(181.255)		(163.955)	
OTHER CIVIL AVIATION EXPENDITURES:											
Meteorological Dept. (c)		2.400	5.650	4.993	26.235	37.002	73.375	120.845	*	120.845	(d)
Less Met. Charges (d)		-	-	-	-	-	-	-		(24.169)	
Airport Police (e)		-	-	-	-	10.052	21.445	34.312	*	-	
Air Services Trng Inst.		-	-	-	19.721	22.367	30.859	49.374	*	49.374	*
Total Other Expenditures		2.400	5.650	4.993	45.956	69.421	125.679	204.532		146.051	
Surplus/(Deficit)		(35.672)	(27.871)	(41.421)	(81.332)	(114.432)	(214.916)	(385.787)		(310.006)	

Notes: (a) Includes costs of maintenance carried out by Roads Department.
(b) Includes airport maintenance carried out by Provincial Roads Department.
(c) Includes provincial meteorological expenditures after 1991.
(d) Assumes 20% of total costs are recovered through landing fees at NACL airports.
(e) Airport Police charged to NACL from 1992 onwards.
* = Estimated.

111 The DCA levies landing and parking fees at all their airports (there are separate schedules for category II and category III airports), although in practice they are only collected at category II airports. The DCA also collects passenger service departure charges on behalf of the Ministry of Finance. In the case of landing and parking fees, DCA staff issue invoices at the airfield and the airline is expected to remit payment to DCA headquarters in Lusaka. The proceeds are then credited to the government's general revenues. The accounting system does not record accounts receivable. There is no follow-up when an invoice is issued to ensure it is paid and to follow up delinquent accounts. Staff from DCA's accounting unit collect the airport departure fees and these are remitted directly to the Ministry of Finance. Again, there appears to be no systematic monitoring to discourage evasion and leakage.

112 Current landing fees are negligible. The average fee during FY90 was K 55 (about $1.90). Fees were last revised in March 1987 (when the exchange rate was K 10 = $1.00) and have not been raised since. The landing fee for a 2-tonne Cessna 206 is K 11.20 (less than $0.10), while that for a 6-tonne ATR 42 is K 89.60 (less than $0.75). These fees need to be raised by a factor of at least 12 to reinstate their FY87 values. The passenger service departure charge is currently K 80, which is lower than the K 200 domestic departure charge applied at NACL airports. A quick check on the relationship between landing fees and revenue collected suggests that arrears are not a problem. However, once fees are raised, arrears could increase and DCA would need to introduce a more systematic method of accounting for invoices issued, bills paid and delinquent accounts. A quick check of the passenger service departure charge likewise suggests that evasion and leakage are not a problem, but this could change if the fee was raised, or expressed in foreign exchange.

B.2 Options for Reform

113 To improve financial performance and minimize the burden on the government's recurrent budget, it might be desirable to commercialize all category II airports and require DCA to account for them as a separate commercial entity within MC&T. Commercialization would enable operation and management of the main regional airports to be separated from that of the minor (bush) airports and also from DCA's regulatory and policy making functions. The commercial accounting systems would provide a transparent record of income and expenditures, account for capital assets (in the form of a balance sheet) and show sources and application of funds (and identify reliance on government budgetary transfers). When supplemented by cost accounts, the accounting framework would also identify options for cutting costs and show the profitability of individual airports. The accounts would also record accounts payable and help to identify delinquent accounts and bad debts. Fees and charges could then be raised without fear of increasing evasion and leakage.

114 Apart from commercializing category II airports, the reforms should concentrate on raising fees and charges. If the average landing fee was raised from the present figure of K 55 (corresponding to the fee paid by a 10 tonne aircraft) to $40 and the passenger service departure charge was raised to K 200 (to equal the NACL domestic departure charge), annual revenues would increase to nearly K 18 million at FY92 prices and exchange rates. To ensure the fees and charges retain their value, they should be expressed in dollars. Although the higher fees and charges would only marginally reduce the overall FY92 deficit (from K 116 million to K 99 million, excluding development expenditures), it would at least move the deficit in the right direction.

115 Other reforms worth considering include: (i) should Kalabo (and even Zambezi), which handle very little traffic, be re-classified as category III airports; (ii) should responsibility for selected airports (e.g., Southdowns) be transferred to district councils (who would become responsible for managing the airport and financing any deficits); (iii) should such airports be transferred to NACL; or (iv) should bids for operation of such airports be invited from private operators (either to manage the airport, or to operate it under a lease arrangement). Southdowns already deserves such consideration. With revised charges it would earn about K 11.4 million p.a. (nearly $100,000) and with improved management could probably be financially self-sufficient.

116 Finally, there is the question of development expenditures. DCA has estimated that it needs to spend about K 133 million ($2.7 million) rehabilitating and modernizing airports (at FY91 prices and exchange rates). Most of these expenditures relate to works at Southdowns, Chipata, Kasama and Kasaba Bay (K 120 million of the K 133 million). The remainder is relatively minor work. Development budget allocations for FY91 were K 32 million and the estimate for FY92 is K 65 million (both equivalent to about $0.5 million). These allocations appear reasonable. DCA is nevertheless reviewing the above rehabilitation and modernization plan with the assistance of technical assistance provided by the African Development Bank (AfDB) and, once the review has been completed, the development budget allocations should be revised.

B.3 Conclusions

117 The main recommendation of this section is that operation and management of all category II airports be commercialized to improve performance and reduce demands on the government's recurrent budget. The main steps would involve:

(i) Separating operation and management of category II airports from DCA's other responsibilities and accounting for them as a separate commercial entity within MC&T.
(ii) Raising fees and user charges and expressing them in dollars to ensure they maintain their value. The average landing fee needs to be raised to about $40 from the present level of K 55, while the passenger service departure charge needs to be raised from K 80 to K 200 in line with domestic departure charges at NACL airports.
(iii) The government should consider whether Kalabo (and Zambezi), which carry very little traffic, should be re-classified as category III airports. For other airports, particularly Southdowns, the government should consider requesting district councils to take over their operation and maintenance, transfer them to NACL, or transfer them to private operators.
(iv) Present provisions in the development budget appear reasonable. Once DCA has completed its review of the development plan under technical assistance provided by AfDB, the development budget allocations should be revised.

VI. OTHER TRANSPORT AGENCIES

118 The review of the remaining government-owned transport agencies was confined to Engineering Services Corporation Ltd. (ESCO), Mpulungu Harbor Corporation Ltd. (MH) and Zambia National Shipping Company Ltd. (ZNSL). Although ESCO and ZNSL are relatively important agencies, little is known about their financial performance and they have consequently been grouped under Other Agencies.

A. Engineering Services Corporation

119 ESCO was established in December 1989 to take over the responsibilities of the former Mechanical Services Department (MSD) which had until then been part of the Ministry of Works and Supply. The responsibilities taken over from MSD included procurement of government vehicles, maintenance of government plant and equipment, and repair and maintenance of vehicles. ESCO inherited 2,500 staff (now reduced to 900) and assets, valued at the end of 1988, of K 205 million (probably worth about $20 million). The assets consisted of vehicles, plant and equipment, workshops and a large stock of spare parts. ESCO did not take over any road construction and maintenance equipment. RD kept all its heavy plant and equipment, but most of its large workshops were taken over by ESCO. There are nine main regional workshops and each has several district workshops under its control. Most work is concentrated in Lusaka, Livingstone and Kitwe.

120 The new organization continues to procure government plant and equipment and provides four main types of service to government departments, public enterprises and private sector clients. They include: (i) repair and maintenance of plant and equipment; (ii) hire of plant and equipment (cranes, fork-lift trucks, compressors, etc.); (iii) operation of machine shops and metal fabrication facilities; and (iv) installation, maintenance and rehabilitation of air-conditioning equipment. Although the intention when creating ESCO was to diversify its customers, 60 to 70 percent of the corporation's revenues still come from government departments. Their current customers include the Army, Airforce, Central Statistical Office, Ministry of Health and Ministry of Education.

121 ESCO's financial position is precarious and government had to provide grants of K 60 million in FY91 ($1.2 million) and has budgeted a further grant of K 120 million ($1.0 million) to keep the corporation solvent during FY92. The extent of the corporation's financial problems are still unclear. Although it has been in business for over two years, it has not produced any accounts and is still in the process of getting auditors to produce a Statement of Affairs covering the first 15 months of operation (December 1989 - March 1991). Indications are that turnover for this period was about K 90 million. However, this includes a large element of arrears (mainly attributable to insolvent government departments) and many of these commitments are likely to become bad debts. The corporation is also seriously short of cash. There are frequent reports of the corporation being unable to meet its salary bill and spare parts have been sold to private customers to finance current operations. The corporation has also run up an overdraft of K 80 million on which it is paying 46 percent interest. The financial position seems to be improving (unverified estimates are that losses were down to K 60 million during the first quarter of 1991/92 and down to K 7 million during the second quarter).

122 ESCO has still not managed to develop much private sector business and several government departments (the Roads Department being one), either prefer to maintain their own mechanical plant and equipment or use other agencies instead. The corporation inherited a bad image from MSD and is having considerable difficulty overcoming it. Current plans for restructuring seem to be confined to tinkering with existing arrangements by reducing manpower (by an estimated 250 out of 900) and concentrating workshop operations on the three main regional centers (probably Lusaka, Livingstone and Kitwe). The other regional workshops would then either be leased to the private sector, or sold. No serious consideration seems to have been given to other forms of reorganization.

123 A serious restructuring of the organization should probably start off by dividing it into clearly defined business centers focussing on: (i) procurement of government vehicles and equipment; (ii) hire of plant and equipment; (iii) overhaul and maintenance of vehicles and heavy equipment; (iv) metal fabrication and light engineering; and (v) installation and maintenance of air-conditioning and other equipment. The second step would be to concentrate on those business centers which were profitable (or could be made so) and to down-size or close those which were problematic (like maintenance and repair of vehicles which faces stiff competition from the private sector and appears to account for much of the corporation's bad image). The restructured corporation might then be privatized as a whole, or as individual business centers, through management and staff buy-outs, or by outright sale. This procedure was successfully used when the New Zealand Ministry of Works was corporatized in 1988 (the commercial activities of the ministry were divided into four main business centers — civil works, consulting services, computing, and building services — and the latter two were quickly privatized under management buy-outs). The time-table for privatization should be no longer than two years.

124 There appears to be no case for further infusions of public capital to keep ESCO going (other than to reduce the corporation's overdraft as part of a restructuring exercise) and the corporation should be encouraged to sort out its own affairs and to do so in an expeditious and energetic way. The tragedy of ESCO's present predicament is that it has not put the overhaul and repair of road maintenance equipment on a sound basis, so that RD cannot rely on ESCO to provide its workshop services.

B. Mpulungu Harbor Corporation Ltd.

125 MH came into being at the end of 1989 when it took over responsibility for operation of the harbor from MC&T. MH is a relatively small port. It has 72 employees and handles about 60,000 tonnes of cargo p.a. (about 40,000 tonnes of exports and 20,000 tonnes of transit traffic). This is equivalent to about 260 tonnes of cargo per day (i.e., about 10 truck loads per day). Burundi is the main destination for cargo shipped through the port and other destinations include Tanzania, Rwanda, Malawi and Zaire. The main commodities handled are cement and sugar. The PTA secretariat has estimated that traffic at MH could grow to 120,000 tonnes by the end of the decade, but this forecast appears optimistic.

126 Port facilities consist of one rehabilitated quay — financed by the European Economic Community (EEC) in 1984 — and another in a run-down condition. The port also owns a fair amount of equipment which includes cranes, fork-lift trucks and tractors. Storage facilities include four warehouses (two are in a poor state of repair and are not being used) and cargo must often be stored in the open awaiting shipment. This causes problems during the rainy season when sugar and cement have to be stored in the open.

127 MH produces annual accounts which are subject to an external audit. The auditors qualified the 1990/91 accounts, because they considered the systems of stock control inadequate. The annual accounts show a loss of K 95,677 on a turnover of K 7.3 million during the first 15 months of operation and a profit of K 745,492 (roughly $15,000) on a turnover of K 13.0 million during 1990/91. Accounts receivable are substantial and account for more than half recorded turnover (i.e., the port is owed over $100,000). MH has furthermore not yet agreed on the value of the assets taken over from MC&T and the accounts consequently do not include depreciation. It seems likely that the assets will be valued at about K 15 million (only about $125,000 at the average 1992 exchange rate) and, since much of this consists of plant and equipment, the inclusion of a realistic item for depreciation would turn the 1990/91 profit into a loss.

128 There seems to be no case for spending large sums of public money on rehabilitating the second quay, providing workshops, or procuring more port equipment. The future of the port is in any case being reviewed under a study financed by the EEC. The port is small, handles a limited range of cargo (mainly cement and sugar) and could quite easily function outside the public sector. It may therefore be desirable to consider greater private sector involvement. The port could either be operated under a private management agreement, selected port services could be sub-contracted to the private sector (e.g., provision, operation and maintenance of port equipment, cargo handling services, etc.), it could be operated under a concession arrangement, or the entire port could be sold to a private sector operator. It is suggested that these options be explored before any further public funds are provided.

C. Zambia National Shipping Company Ltd.

129 ZNSL was established at the beginning of 1989 and set up its headquarters in Colchester, U.K. It was primarily a liner shipping service and started business by chartering three vessels of about 12,000 Dwt each. Services were initially operated between selected European ports (Hamburg, Antwerp and Felixstowe) and four African ports (Walvis Bay, Beira, Dar-es-Salaam and Mombasa). The Beira service was soon terminated because of long turnaround times and two additional ports of call were added in South Africa (Durban and Port Elizabeth). The service relied on carrying cargo from Africa to Europe and had great difficulty finding any return cargoes. The main export cargo was copper, supplemented by smaller amounts of tobacco, coffee and groundnuts shipped from Zimbabwe via Beira.

130 The company had great ambitions. It was not satisfied with operation of services between Africa and Europe and wished to expand its services to include routes to India and to Far Eastern and Mediterranean ports. It also wanted to establish joint ventures with other shipping lines to further diversify its business. The company operated under the jurisdiction of Zimco which was also a major shareholder. However, after three years, the company had still not produced any accounts, or was unwilling to share them with either the Bank or Zimco (in spite of being responsible to, and part-owned by, Zimco). Press reports suggest that losses during 1991 amounted to about K 69 million ($1.4 million). The future of the company was reviewed during 1991 and a decision was taken to liquidate it by allowing its boat charters to lapse when they became due for renewal. The company will therefore cease to exist at the end of March 1992.

131 International shipping is a highly competitive business and small national shipping lines can only survive in a competitive market if they are protected, or heavily subsidized. ZNSL clearly hoped to receive such protection and the government's Committee on Transport Policy did suggest that Zambia adopt the UNCTAD shipping code to ensure cargo was diverted to ZNSL.

The UNCTAD code is a cargo reservation system, which asserts the right of national shipping lines to carry up to 40 percent of their own foreign trade. Another 40 percent can be carried by nationals from the other countries involved in this trade, while the remaining 20 percent can be shipped through the open market. The cargo is allocated to one of these categories by a National Shipping Council which receives a large commission for providing this service. This appears to be a painless way of protecting local carriers. However, it does so by *forcing* shippers to use local carriers, regardless of cost and quality of service. The cargo allocation system likewise encourages gratification payments (to the Shippers Council) to avoid being classified into the 40 percent reserved for local carriers.

132 Most countries in Africa operate cargo reservation systems to force shippers to use the national shipping lines. The costs of these arrangements are substantial. For example, the rates from Northern Europe to Angola are $170 per tonne for *reserved* national flag carriers and $80 per tonne for international carriers. This difference costs Angola an additional $26 million a year in extra freight charges. The costs of shipping freight via local carriers in Africa typically costs 30-40 percent more than open market fixings. This is a high cost to pay for the benefit of having a national shipping line. Other parts of the world recognize these costs and have been moving away from the UNCTAD shipping code, particularly in Asia and Latin America. Estimates prepared for the Uruguay Round negotiations likewise show that the annual costs of cargo reservation systems vary from $400 million in Malaysia, through $250 million in India to $80 million in Chile.

133 Under the circumstances, the government appears to have made a wise decision in deciding to liquidate ZNSL. No provision has been made in the following Public Expenditure Program for any costs which might be incurred during FY92 in winding up ZNSL. However, the company is quite likely to end up with large debts. If these are guaranteed by the Zambian government, the 1992 budget may have to absorb these costs. On the other hand, if these losses are not covered by government guarantees, the company should simply be allowed to go bankrupt in the normal way.

VII. OVERALL SECTOR PERFORMANCE

134 This chapter examines the impact of the government-owned transport sector on the overall economy. It examines it from three points of view. First, by looking at the sector's financial impact on the government's overall fiscal balance; second, by looking at the sector's contribution to external indebtedness; and third, by examining the scope for diversifying ownership and increasing private sector involvement. A final section adds a postscript outlining actions taken by the government since the substance of this report was first discussed with the government in December 1991.

A. Overall Fiscal Balance

135 The overall financial performance of the sector is summarized in Table 15. The table shows the net flows between the government and the transport sector. Positive items are deficits and represent flows of funds *from* the Ministry of Finance (injections of cash and/or equity), overdrafts and short-term loans provided by government-owned banks (mainly Bank of Zambia), or short-term loans from commercial banks carrying government guarantees. Negative items are payments *to* the government and consist of surpluses of government departments, corporate taxes and charge-back items (e.g., Airport Police, meteorological charges and Road Traffic Police). The table shows flows for each transport agency and the totals for all agencies. It includes FY91 actuals, the FY92 estimates under the Business-As-Usual (BAU) scenario and the likely impact of proposed reforms on the estimated deficits for FY92-94.

Table 15. Consolidated Public Expenditure Program for Transport (a)
(Kwacha, million)

	Recurrent Budget					Development Budget							
								FY92		FY93		FY94	
	FY91 Est	FY92 BAU	FY92	FY93	FY94	FY91 Est	FY92 BAU	Local	FX	Local	FX	Local	FX
Ministry of C & T H.Q. (b)	360	892	892	892	892	24	170	25	55	25	55	25	55
Roads:													
Roads Department	442	911	(194)	-	-	420	791	295	496	538	4,531	434	5,148
Shortfall of Rd Maint	1,429	3,575	3,575	2,767	1,916								
Zambia Police	-		-	(100)	(194)	-	-	-	-	-	-	-	-
Road Transport:													
Contract Haulage	0	0	0	0	0	0	0	0	0	0	0	0	0
United Bus	0	0	0	0	0	0	0	0	0	0	0	0	0
Urban Transport (c)	0	0	120	120	120	-	-	-	-	-	-	-	-
Civil Aviation:													
National Airports	0	0	0	0	0	60	384	48	336	48	336	48	336
Meteorological Charge (d)	-	-	(24)	(24)	(24)	-	-	-	-	-	-	-	-
Airport Police Costs	-	-	(34)	(34)	(34)	-	-	-	-	-	-	-	-
Dept. Civil Aviation	187	321	269	269	269	28	65	15	50	15	50	25	240
Zambia Airways (e)	2,326	3,000	2,000	1,500	0	0	0	0	0	0	0	0	0
Railways: (f)	1,500	2,000	1,500	1,000	0	110	3,751	60	240	240	1,200	240	1,200
Other Transport:													
Engng. Services Corp.	60	120	120	0	0	10	?	?	?	0	0	0	0
Mupulungu Harbor	0	0	0	0	0	0	0	0	0	0	0	0	0
National Shipping	?	?	?	0	0	0	0	0	0	0	0	0	0
Total Requirements:													
Inc Maint Shortfall	6,304	10,818	8,224	6,390	3,035	652	5,161	443	1,177	866	6,172	772	6,979
% of Gov Current Revs	15.2	14.0	10.7	6.6	2.7	-	-	-	-	-	-	-	-
Excl Maint Shortfall	4,875	7,243	4,649	3,623	1,119	652	5,161	443	1,177	866	6,172	772	6,979
% of Gov Current Revs	11.7	9.4	6.0	3.7	1.0	-	-	-	-	-	-	-	-

Notes: (a) Figures are not strictly comparable. Some relate to calendar years and others to April 1 to March 31.
FY91 figures at current prices and exchange rates; remainder at FY92 prices and exchange rates ($1.00 = K 120).
(b) Excludes spending on Chipata-Mchinji railway line.
(c) Urban transport revenue support for major urban District Councils.
(d) Assumes 20% of meteorological department costs are charged against international airport users from FY92.
This would increase existing landing and departure fees by about 8 percent.
(e) Short-term indebtedness and overdraft to government owned banks. Actuals for FY91, remainder are mission estimates.
(f) Mission estimates with target reductions for FY93 and FY94. Development expenditures substantially reduced.

136 The introduction to this report suggested that transport agencies should be able to operate commercially without the need for net financial transfers from government, other than to cover specific PSO grants. Instead, however, the transport sector is imposing a severe drain on the government's overall fiscal revenues. In FY91 the sector's cash shortfall amounted to K 4,875 million (nearly $100 million), or 12 percent of the government's total current revenues (revenues, less grants). When shortfalls of regular road maintenance are included (to reflect the sector's requirements, rather than what it actually received), the shortfall amounted to K 6,304 million ($126 million), or 15 percent of the government's total current revenues. The shortfall was mainly attributable to ZA and ZR. Estimates for FY92 (BAU), show an increase in Kwacha terms, but a reduction in $s. This reduces the shortfall to 9 percent of total current revenues without the maintenance shortfall and 14 percent with the shortfall. However, it is important to note that this improvement is dependant on both ZA and ZR cutting their dollar losses during FY92.

137 Table 15 emphasizes the urgent need to restructure selected transport agencies. The transport sector is now one of the country's main macro-economic problems and the government's macro-economic stabilization program will only succeed if it includes actions to reduce the severe financial losses incurred by selected transport agencies. The main culprits are clearly ZA and ZR, followed by RD, DCA and ESCO. The restructuring program therefore needs to focus on: (i) addressing ZA's short-term financial problems and setting out a firm agenda for medium and long-term development (disposing of surplus aircraft, closing foreign sales offices, reviewing the route structure and reviewing current air freight services); and (ii) tackling ZR's financial problems and defining a clear role for the railways in the Zambian economy (concentrating on the core rail business, getting out of operation of workshops, reducing locomotive and rolling stock requirements and abandoning the TYDP). Equally important, is the need to put road maintenance on a sound financial basis by raising user charges, commercializing RD and rebuilding road maintenance capacity. DCA and ESCO are smaller problems, but should nevertheless still be addressed as part of the sectoral restructuring program.

138 The potential impact of the above reforms are also spelled out in Table 15. Although it is difficult to be precise about the impact of the reforms and the speed with which they can be implemented, the table suggests that the sector's overall cash shortfall could be reduced to 6 percent of total current revenues in FY92, through 4 percent in FY93 to 1 percent in FY94. When road maintenance shortfalls are included, the percentages amount to 11, 7 and 3 percent respectively. In other words, within three to five years, the transport sector could in principle again be brought into balance with all road maintenance expenditures fully funded.

B. External Indebtedness

139 Government and government guaranteed debt outstanding and disbursed (DOD) attributable to the transport sector is summarized in Table 16. It shows that the sector as a whole accounted for about 9.3 percent of all DOD as of October 1991 (excluding short-term debt and IMF loans) and about 11.1 percent of project loans (i.e., excluding debt rescheduling, import credit and structural adjustment loans). For a revenue earning sector capable of financing many of its requirements from internally generated funds, this percentage is probably too high. Most of the debt is accounted for by railways (mainly Tazara), roads and air transport. The road sector has also benefitted from a large number of grants. Since these three agencies are also responsible for the largest financial problems in the transport sector, the loans — together with the covenants which usually accompany them — have not been effective. It may also have been unwise for donors to finance road expenditures through grants. Road rehabilitation has already become a substitute for regular road maintenance and, by financing it on a grant basis, donors have further weakened the need to raise road user charges (gasoline and diesel prices in Africa are amongst the lowest in the world). It might make more sense to borrow for roads (and to service the loans by raising road user charges) and to use grants as leverage to improve the financial performance of railways and air transport.

Table 16. Transport Sector Outstanding and Disbursed Gov't and Gov't Guaranteed Debt, 1990/91
(Lender Currency and $s)

Lender	Currency	Total Committment ('000)	Agreement Date	Outstanding & Disbursed Units	Outstanding & Disbursed $s
I. RAILWAYS:					
African Development Bank	U/A	8,000	02/1980	6,230	8,207
Austria	A. Sh	26,664	08/1979	7,499	561
China	Yuan	15,000	08/1983	15,305	7,730
China	Yuan	494,000	07/1970	494,000	200,813
China	Yuan	5,000	08/1986	5,000	1,449
European Economic Community	$	5,000	06/1980	2,658	2,658
European Development Fund	EUAF	8,000	02/1980	6,640	8,696
World Bank (IBRD)	$	25,000	06/1980	32,366	32,366
World Bank (IDA)	$	15,000	06/1980	15,000	15,000
World Bank (IDA)	SDR	20,500	04/1985	1,544	1,575
OPEC Special Fund	$	4,500	08/1979	1,332	1,332
U.K.	U.K. Pds	1,000	04/1987	250	411
				Sub-Total	264,300
II HIGHWAY TRANSPORT:					
Arab Bank for Dev. of Africa	$	10,000	04/1978	9,410	9,410
Arab Bank for Dev. of Africa	$	15,000	07/1985	15,000	15,000
China	U.K. Pds	7,000	05/1967	20,470	56,293
World Bank (IBRD)	$	10,700	10/1968	3,510	3,510
World Bank (IBRD)	$	11,250	06/1978	9,842	9,842
Italy	$	22,922	08/1985	18,779	18,779
Italy	$	11,750	06/1986	3,200	3,200
Saudi Fund for Development	SRLS	65,000	04/1982	11,761	3,429
U.S. AID	$	10,510	09/1981	8,250	8,250
				Sub-Total	127,712
III. LAND TRANSPORT:					
Denmark	D. Kr	4,245	09/1981	2,478	348
Germany	$	544	12/1980	367	367
Netherlands	NLG	2,363	12/1980	1,327	667
				Sub-Total	1,382
IV. BUS TRANSPORT:					
India	Rs	22,518	08/1983	22,518	2,230
India	Rs	11,020	12/1979	6,612	813
India	Rs	17,544	07/1980	11,753	1,495
ECESA (Liberia)	$	575	03/1981	460	460
SDESA (Liberia)	NLG	1,100	12/1980	1,100	553
				Sub-Total	5,551
V. AIR TRANSPORT:					
OPEC Special Fund	$	5,000	01/1988	998	998
U.S. Export Credit	$	32,000	07/1984	44,600	44,600
U.S.S.R. Suppliers Credit	U.K. Pds	2,969	01/1980	1,484	637
				Sub-Total	46,235
Grand Total					445,180
As % of All Debt Outstdg & Disbursed					9.3
As % of All Project DOD					11.1

C. Diversifying Ownership and Increasing Private Sector Involvement

140 The final issue which government needs to address as part of any transport restructuring program relates to ownership. It is not thought, at least at this stage, that RD (even if reconstituted as a Roads Board), or ZR are suitable candidates for diversification of ownership. On the other hand, more of their activities could be sub-contracted to the private sector and some parts of both RD and ZR (e.g., quarries, workshops and the pre-cast concrete factory) would benefit from greater private sector involvement. It is likewise unlikely that ownership of NACL could be diversified in its present form. However, if runways and air traffic control equipment were owned by DCA and NACL merely managed them under a management contract, ownership of the restructured airports corporation could probably be diversified, either through a management-staff buy-out, or sale to local financial interests. Ownership of CHL and UBZ could also be diversified through a management-staff buy-out, or sale to local financial interests. MH could be dealt with in the same way, although there may be some advantage in allowing foreign financial interests to take over the corporation. Arrangements for CHL and UBZ could be completed within 1 to 2 years; those for MH could be completed within 2 to 3 years. ZA needs to be restructured before attempting to widen its ownership. Ownership would benefit from integration into a wider regional or international network of services and this would involve sale to a major regional, or international airline. The remaining agency to be dealt with is ESCO. Although it is a relatively small corporation, it is in serious financial difficulty and it would be desirable to resolve this as soon as possible. It is therefore suggested that ESCO be quickly restructured and either sold off as separate business centers (preferably under a management or staff buy-out), or liquidated. This could be done within 2 years.

D. Postscript

The substance of the above review was presented to the government in the mission's Aide Memoire dated December 12, 1991. An informal draft of the present report was discussed with the Government during February 1992 and the Green Cover report was discussed during September 1992. The government's response to the report was swift and decisive. Immediate steps were taken to reduce ZA's losses and a consultant was recruited to prepare an emergency restructuring plan. The consultants reported in September 1992 and the restructuring plan is now under implementation. In the case of ZR, a new Managing Director was appointed and a major restructuring program is currently under preparation as part of the restructuring of the Bank's Fourth Railway Project. To address questions raised about the roads sector the government volunteered to be included in the Road Maintenance Initiative administered by the Bank and is proposing to explore a wide range of reforms under the Bank's Infrastructure Engineering Credit which is currently under preparation.

CHL and UBZ are both due to be privatized under the government's wide-ranging privatization initiative and MC&T is exploring ways to restructure NACL so that part, at least, might also be privatized. In the case of DCA, the government decided not to go ahead with commercialization as recommended in this report. With so many other initiatives going on this was probably a wise decision, although commercialization should still remain a long-term goal. Finally, a restructuring plan has been prepared for ESCO and the government is currently reviewing it before deciding whether to implement the plan.

The above initiatives represent a bold response to the bleak financial picture presented in the report. In that connection, the report has served a useful purpose in pin-pointing areas of concern, quantifying the consequences of current policies, suggesting options for reform and outlining potential areas of Bank assistance to support the reforms (e.g., providing help to explore options for restructuring the airline, helping to restructure the railways and outlining ways to reform management and maintenance of roads). The key to success is nevertheless government commitment. It was the government's willingness to adopt the report and broadly accept its prescriptions which made the difference. The report played a catalytic role by outlining the magnitude of the problem, suggesting solutions and (of particular importance) helping to develop a shared vision with the Ministry of Finance.

ANNEXES

Estimated Number of Vehicles and Income From License Fees

1. It is unclear how many vehicles are currently operating in Zambia. Annual licenses are issued at the District level and the numbers are not consolidated to give the total size of the active vehicle fleet. The only consolidated statistics relate to: (i) the number of insured vehicles (some basic insurance is compulsory); (ii) the number of road service licenses issued (to operate commercial vehicles for hire and reward); and (iii) the number of new vehicles registered with the Traffic Commissioners (TCs).

2. The total number of compulsorily insured vehicles at the end of May 1991 was 38,951. The costs of basic insurance varies from K50 ($0.60) p.a. for a private car to K150 ($1.82) p.a. for buses and trucks. The basic policy only pays out when there are serious injuries, or a fatality. The average payment is under K40,000 ($500) and, given the small size of the premiums, is rarely paid out. The general consensus is that most vehicles are uninsured. The figure of 38,951 is thus substantially less than the actual number of vehicles operating in Zambia.

3. Road service licenses only cover vehicles operating for hire and reward. They do, however, indicate how many foreign vehicles are providing transit services to and from Zambia. During 1990 the TCs issued short-term licenses to 2,531 foreign trucks and 2,200 foreign tractor-trailers. It is estimated that these licenses cover operation of an average fleet of about 1,500 vehicles making about 12 trips p.a.

4. Statistics on new registrations are unreliable. The figures compiled by the Central Statistical Office (CSO) differ from those compiled by the TCs. The TC figures furthermore appear to relate to *all* vehicles up to 1980 and only to annual registrations thereafter. The CSO nevertheless prepared a special estimate of the total vehicle fleet in 1975 and a SATCC study produced estimates for the vehicle fleet in 1984. The TC figures for 1980 likewise appear to relate to the total vehicle fleet in that year. Finally, as a further check on the size of the vehicle fleet, the U.K. Transport and Road Research Laboratory vehicle wastage model was used to estimate the overall size of the vehicle fleet from annual new vehicle registrations. These estimates are summarized in Table A.1.

5. The final column in Table A.1 represents the mission's best estimate of the current size of the vehicle fleet in Zambia. Most figures are reasonably consistent with previous estimates. The main discrepancy relates to the number of cars. The various estimates vary from 94,000 to 27,000. However, since annual sales of gasoline suggest there are about 70,00 to 100,000 cars and light commercial vehicles operating in Zambia, the number of cars is probably close to 70,000. The annual consumption of diesel fuel is reasonably consistent with the estimated number of buses and trucks.

6. Table A.2 uses the above vehicle fleet estimates to calculate current revenues from license fees (assuming all fees are collected) and the implications of increasing these fees. The figures suggest current revenues should be about $585,000 and this would rise to $11.4 million if fees were raised to the levels set out in the third column of the table.

Table A.1. Estimated Number of Domestic Vehicles

Vehicle Type	1975 (a)	1980 (b)	1984 (c)	1988 (d)	Estimated Fleet
Motor cycles	10,208	5,164	4,819	5,238	5,000
Passenger Cars	94,259	69,003	68,032	26,702	70,000
Buses & Minibuses	855	957	1,064	2,545	2,500
Vans, Vanettes & Ambulances	29,438	17,821	18,545	18,911	19,000
Trucks	17,293	12,447	16,971	5,597	6,000
Total	152,053	105,392	109,431	58,993	102,500

Notes: (a) Estimate prepared by Central Statistical Office, 1977.
(b) Total motor vehicle registrations, Road Traffic Commision, Lusaka.
(c) Estimates prepared for the 1986 SATCC study on road user charges.
(d) Estimates prepared from annual new vehicle registrations and natural wastage rates. Vehicles brought in from other countries have been treated as cars.

Table A.2. Estimated Revenue from License Fees (a)

(U.S. $)

	Estimated Fleet	License Fees Current Kwacha	License Fees Current $s	License Fees Proposed Kwacha	License Fees Proposed $s	Total Revenue ($, '000) Current	Total Revenue ($, '000) Proposed
Motor cycles	5,000	200	1.67	600	5.00	8	25
Passenger Cars							
Private	30,000	2,500	20.83	9,000	75.00	625	2,250
Government	40,000	–	–	–	–		
Buses							
Private	1,000	4,500	37.50	36,000	300.00	38	300
Government	1,500	–	–	–	–		
Vans, Vanettes & Ambulances	19,000	2,000	16.67	15,000	125.00	317	2,375
Trucks							
Private	1,000	5,500	45.83	60,000	500.00	46	500
Government	5,000	–	–	–	–		
Total	102,500					1,033	5,450

Notes: (a) Exchange rate: $1.00 = K120

ZAMBIA RAILWAYS

OPERATIONAL PERFORMANCE

	1986 Actual	1987 Actual	1988 Actual	1989 Actual	1990 Actual	1991 Actual	1992 Estimate
Goods Traffic							
Tonnes ('000)	4,568	4,543	4,620	4,902	4,097	3,435	
T–km (mil)	1,365	1,337	1,355	–	1,404	776	
Passenger Traffic							
Number ('000)	1,271	1,571	1,884	2,182	1,187	788	
P–km (mil)	–	–	–	–	268	176	
Number of Locomotives							
Own				71	71	71	
Hired				25	22	13	
Staff				8,489	?	8,500	
Average Locomotive Availability (%)	63	60	58	50	54	44	43
Average KM Per Locomotive							
Per Day in use	224	231	244	199	200	208	245
Average Wagon Availability (%)	91	88	88	88	90	91	89
Average Wagon Turnaround Time (days)							
Domestic	13	13	14	10	20	17	10
Minerals	4	4	4	5	12	12	10
Export/Import	NA	NA	NA	30	31	31	30
Transit	4	4	4	6	7	6	
Average Wagon Loan (Tonnes)							
General Freight				25	27	37	36
Minerals				40	44	44	40
Productivity Per Available Wagon							
Per Year ('000 tkm)				260	?	260	260
Staff Productivity ('000 traffic							
Units per Employee)	207	213	207	192	206	210	

ZAMBIA RAILWAYS
PROFIT AND LOSS STATEMENT
(thousand kwacha)

FY	1986/87 Actual	1987/88 Actual	1988/89 Actual	1989/90 Actual	1990/91 Actual
INCOME					
Passengers	17,226	26,719	44,415	39,838	83,053
General Goods, Minerals	366,426	448,661	552,994	1,306,208	2,945,860
Storage, Demurrage, Other	10,456	24,457	20,044	50,830	138,590
Livestock	3,312	793	2,499	11,120	22,050
Staff Rents	2,588	2,731	5,943	4,863	6,477
Miscellaneous Catering	6,984	10,935	17,436	36,389	107,985
Total Income	406,992	514,296	643,331	1,449,248	3,304,015
EXPENDITURE					
Operating Expenditure					
Administrative Charges	128,833	225,886	351,442	495,873	937,460
Operating and Running	90,604	127,317	162,331	423,453	1,258,482
Maintenance/Terminal	94,077	97,725	101,299	166,779	531,771
Goods & Passenger Handling	31,228	34,954	12,529	36,519	84,335
Catering/Terminal	426	0	2,822	0	0
Total Operating Expenditure	345,168	485,882	630,423	1,122,624	2,812,048
Operating Income	61,824	28,414	12,908	326,624	491,967
Non Operating Expenditure					
Finance Charges	0	0	0	0	224,703
Decrease in Provision for Diminution in Value of Interest	2,177	0	0	0	0
Exchange Losss	49,873	9,500	50,372	716,017	704,599
Provision for Bad Debt	0	0	14,923	29,750	0
Tax	2,966	2,966	2,966	2,966	2,966
Total Non Operating Expenditure	55,016	12,466	68,261	748,733	932,268
Net Income	6,808	15,948	(55,353)	(422,109)	(440,301)
Return on Total Assets %	–	2	–4	–24	–6
Rate of Return on Net Fixed Assets %	–	3	–8	–44	–15

ZAMBIA RAILWAYS
BALANCE SHEET
(thousand kwacha)

FY	1986/87 Actual	1987/88 Actual	1988/89 Actual	1989/90 Actual	1990/91 Actual
ASSETS					
FIXED ASSETS	561,728	628,740	948,837	1,461,474	2,620,498
INTEREST IN SUBSIDIARY	5,814	9,679	16,006	19,202	58,194
UNITARY SYSTEM ACCOUNTS	41,183	43,105	45,083	45,443	45,108
Total Fixed Assets	608,725	681,524	1,009,926	1,526,119	2,723,800
CURRENT ASSETS					
Stocks	68,806	192,656	258,416	314,113	410,618
Debtors	169,306	155,960	136,273	501,460	1,078,877
Bank and Cash	72,339	99,953	194,043	252,490	107,777
Total Current Assets	310,451	448,569	588,732	1,068,063	1,597,272
Unrealised Exchange Losses/Gain	54,115	44,615	127,855	792,727	241,782
Total Assets	973,291	1,174,708	1,726,513	3,386,909	4,562,854
LIABILITIES					
CURRENT LIABILITIES					
Creditors	266,295	372,306	546,769	1,485,560	676,886
Taxation	2,966	2,966	2,966	2,966	5,932
Bank Overdraft	9,472	1,403	5,801	5,355	114,609
Total Current Liabilities	278,733	376,675	555,536	1,493,881	797,427
LONG-TERM LIABILITIES					
Long-Term Loans	453,437	460,147	620,353	1,584,899	1,476,629
Total Liabilities	732,170	836,822	1,175,889	3,078,780	2,274,056
EQUITY					
Authorised Share Capital	197,756	197,756	197,756	197,756	197,756
Pending Allotment of Shares	20,938	89,241	331,274	466,542	2,317,648
Grant	9,420	21,934	47,992	90,338	586,401
Distributable Reserves	13,007	28,955	(26,398)	(446,507)	(813,007)
Total Equity	241,121	337,886	550,624	308,129	2,288,798
Total Liabilities and Equity	973,291	1,174,708	1,726,513	3,386,909	4,562,854
Current Ratio (times)	1.11	1.19	1.06	0.71	2.00
Debt Equity Ratio	27:75	71:29	68:32	90:10	50:50

ZAMBIA RAILWAYS
SOURCES AND APPLICATION OF FUNDS
(thousand kwacha)

	1986/87 Actual	1987/88 Actual	1988/89 Actual	1989/90 Actual
SOURCES OF FUNDS				
Internal Sources				
Profit Before Tax	14,128	18,914	(52,387)	(417,143)
Add:				
Unrealised Exchange Losses/Gain	49,873	9,500	28,165	55,395
Depreciation	40,202	40,304	73,536	67,874
Provision for Diminution in Value of Interest in Subsidiary	(2,177)	0	0	0
Deferred Expenditure & Write Off	0	0	4,383	0
Loss/Gain on Disposl of FA	458	446	0	(1,084)
Total Internal Sources	102,484	69,164	53,697	(294,958)
Funds From Other Sources				
Government Grant	25,333	68,303	242,033	135,268
Reeceived for Rehab – Mulobezi Branch	9,453	12,290	24,339	33,880
Long–Term Debt	52,568	6,710	85,853	337,320
Interest in Subsidiary	1,870	0		
Sales Proceeds of FA	70	459	0	1,536
Total Other Sources	89,294	87,762	352,225	508,004
Total Sources	191,778	156,926	405,922	213,046
APPLICATION OF FUNDS				
Addition to FA	152,950	107,997	386,400	334,602
Interest in Subsidiary	0	3,865	5,204	(3,974)
Unitary System Accounts	150	1,922	1,978	360
Tax	2,861	2,966	2,966	2,966
Loan Repaid	0	36	33	70,999
Increase/Decrease in Working Capital	35,817	40,176	9,338	(190,907)
Total Application of Funds	191,778	156,962	405,919	214,046

ZAMBIA AIRWAYS CORPORATION LIMITED
PROFIT AND LOSS ACCOUNT
(thousand kwacha)

	1986/87	1987/88	1988/89	1989/90	1990/91
OPERATING REVENUE					
Passenger & Baggage	438,347	506,599	745,913	1,809,853	3,983,493
Freight & Mail	89,023	86,518	127,761	213,305	486,964
Charters	24,656	46,705	32,108	89,513	134,457
Miscellaneous	52,719	54,426	122,245	(3,197)	371,377
Total Operating Revenue	604,745	694,248	1,028,027	2,109,474	4,976,291
OPERATING EXPENDITURE					
A/C Depreciation	6,845	6,024	17,115	33,317	72,547
A/C Insurance	31,761	28,528	23,374	204,176	557,241
Flying Operations	162,506	203,661	277,057	331,720	1,327,136
Technical Services	81,661	105,630	97,989	289,918	550,307
Ground Operations	41,060	53,387	63,449	90,807	330,075
Passenger Services	37,309	44,731	54,832	471,313	1,538,030
Sales,Advert,Publicity	136,530	144,688	203,801	290,212	1,479,521
Gen.& Administration	37,159	53,091	122,307	205,820	779,064
Hire of Aircraft	0	0	0	307,904	362,649
Aircraft Charters	0	0	0	216,533	325,478
Total Operating Expenditure	534,831	642,740	859,924	2,531,720	7,322,048
Operating Profit/Loss	69,914	51,508	168,103	(422,246)	(2,345,757)
Other Income	0	0	0	141,714	309,525
Profit on Sale of Fixed Assets	0	0	0	1,007	3,074
Subtotal	0	0	0	142,721	312,599
Profit After Other Income	69,914	51,508	168,103	(279,525)	(2,033,158)
NON-OPERATING EXPENDITURE					
Finance Charges	29,457	25,266	33,561	11,652	73,077
Exchange Losses/Gains	(1,799)	11,041	60,078	307,904	362,649
Diminution in Value of Africa Bound	0	0	0	46,445	187,126
Staff Training & Develp.	1,570	1,944	3,646	0	0
Total Non-Operating Exp.	29,228	38,251	97,285	366,001	622,852
Profit/Loss Before Tax	40,686	13,257	70,818	(287,386)	(2,111,352)
Tax	488	660	488	488	488
Net Profit	40,198	12,597	70,330	(287,874)	(2,111,840)

ZAMBIA AIRWAYS CORPORATION LIMITED
BALANCE SHEET
(thousand kwacha)

	1986/87	1987/88	1988/89	1989/90	1990/91
FIXED ASSETS					
Net Fixed Assets	134,341	127,852	312,607	376,341	4,853,213
Investments	36,294	41,529	23,305	4,326	9,226
CURRENT ASSETS					
General Stores	5,977	8,967	19,454	63,059	222,319
Debtors	138,231	202,771	268,050	554,029	818,716
Funds on Deposit	72,444	55,865	136,259	251,890	235,001
Bank Balances and Cash	29,024	31,258	84,411	218,743	340,551
Tax recoverable	0	0	2,351	0	0
Due from Subsidiary	0	0	25,956	0	0
Total Current Assets	245,676	298,861	536,481	1,087,721	1,616,587
Differed Expenditure	5,332	7,977	9,288	3,410	1,537
Total Assets	421,643	476,219	881,681	2,181,161	8,286,304
CURRENT LIABILITIES					
Creditors	157,000	143,329	282,738	869,038	1,813,270
Sales in advance	61,600	95,450	131,625	289,701	463,675
Short term loan	12,283	10,447	33,484	144,130	965,347
Bank overdrafts	1,246	24,631	36,369	142,656	910,093
Tax	864	661	0	7,907	8,676
Dividends payable	2,000	2,894	8,000	8,000	0
Diferred Exchange Losses	0	0	0	709,363	1,805,741
Total current Liabilities	234,993	277,412	492,216	2,170,795	5,966,802
LONG TERM LOAN	15,386	14,264	13,256	9,524	25,548
Lease obligations	226,264	197,129	385,687	869,612	2,329,295
Unrealised Exchange Losses	(169,662)	(143,674)	(220,118)	(709,363)	(1,805,741)
Differred Liability				98,658	202,674
Total Long Term Liabilities	71,968	67,719	178,825	268,431	751,776
Total Liabilities	306,961	345,131	671,041	2,439,226	6,718,578
EQUITY					
Share Capital	32,532	32,532	32,532	32,532	32,532
Received Pending Allotment of Shares	57,000	63,309	63,309	63,309	63,309
Revenue Reserve	23,879	33,976	114,799	(353,906)	1,471,885
Non-Distributable Reserve	1,271	1,271	0	0	0
Total Equity	114,682	131,088	210,640	(258,065)	1,567,726
Total Liabilities & Equity	421,643	476,219	881,681	2,181,161	8,286,304
Debt Ratio (%)	0.73	0.72	0.76	1.12	0.81
Equity Ratio (%)	0.27	0.28	0.24	-0.12	0.19

ZAMBIA AIRWAYS CORPORATION LIMITED
SOURCES AND APPLICATION OF FUNDS
(thousand kwacha)

	1986/87	1987/88	1988/89	1989/90	1990/91
INTERNAL SOURCE					
Loss Before Tax	40,686	13,257	70,818	(465,732)	(2,111,840)
Add:					
Profit/Loss on Sale of FA	(8,259)	(181)	(55,649)	(1,148)	(3,030)
Provision Against Subsidiary	0	0	1,016	0	0
Assets Written Off	0	0	0	1,259	1,428
Depreciation	9,013	9,527	25,460	34,730	74,946
Amortisation of Deferred Expenditure	1,570	2,744	3,646	5,878	1,873
Deferred Liability				98,658	104,016
Exchange Losses	16,780	5,442	17,831	83,512	210,372
Total Internal Sources	59,790	30,789	63,122	(242,843)	(1,722,235)
OTHER SOURCE					
Lease Finance	0	0	158,758	28,462	491,651
Proceeds from Sale of FA	8,646	246	64,509	1,536	4,381
Increase in Long Term Loan				509	17,377
Tax Recovered				0	224
Decrease in Investments	17	22	19		
Receivd Pending Allotment of Shares	57,000	6,309	0	0	0
Net Decrease in Aircraft Spares	0	17,011	0	0	0
Total Other Sources	65,663	23,588	223,286	30,507	513,633
Total Source of Fund	125,453	54,377	286,408	(212,336)	(1,208,602)
APPLICATION OF FUNDS					
Purchase of Fixed Assets	10,030	20,114	219,075	118,343	596,692
Increase in Aircraft Spares	19,284	0			
Deferred Expenditure	3,200	5,389	4,957	0	0
Inc.in Interest Subsidiaries	12,974	5,257	0	3,276	4,900
Tax Paid	0	863	3,500	4,000	0
Dividends Paid	0	1,606	1,994	0	8,000
Decrease in Long Term Loan	2,288	2,926	1,008	1,036	776
Lease Finance Repaid	22,858	8,601	41,438	41,526	151,959
Total Application of Funds	70,634	44,756	271,972	168,181	762,327
Increase/Decrease in WC	54,819	9,621	14,436	(380,517)	(1,970,929)
Total Application	125,453	54,377	286,408	(212,336)	(1,208,602)

ZAMBIA
CONTRACT HAULAGE LIMITED
PUBLIC EXPENDITURE REVIEW
STATISTICS

	1988/89	1989/90
Operational Statistics		
Number of vehicles	149	130
Kilometres covered ('000):	8,105	6,464
International		
Domestic		
km/vehicle/year ('000)	54,396	49,723
Tonnage carried ('000):	356	280
International		
Domestic		
tonnes/vehicle/year	2,389	2,154
Number of employees	857	830
employees/vehicle	5.8	6.4
Average number of trips		
Average trip distance (km)		
Tonnes carried		
Average tonnes per trip		

ZAMBIA
CONTRACT HAULAGE LIMITED
PROFIT AND LOSS ACCOUNT
(thousand kwacha)

	1986/87	1987/88	1988/89	1989/90
OPERATING REVENUE				
Other Zimco Group Companies	16,726	29,711	54,012	85,475
Outside the ZIMCO Group	34,769	46,808	65,154	155,557
Total Operating Revenue	51,495	76,519	119,166	241,032
Other Revenue:				
Exchange Gain/Loses	3,492	2,250	(288)	8,333
Revenue Grant	32	4,556	1,390	7,197
Gain from Sale of Fixed Asset	3,993	3,874	2,530	4,847
Interest Income	670	421	340	280
Total Other Revenue	8,187	11,101	3,972	20,657
Total Revenue	59,682	87,620	123,138	261,689
OPERATING EXPENDITURE				
Labour Costs – Operational Workshops	8,610	8,675	13,616	33,718
Vehicle Reparis	7,921	8,158	16,088	19,165
Fuel and Oils	10,346	12,994	19,846	21,651
Tyres and Tubes	3,408	8,673	10,473	22,340
Licencing and Permits	337	1,122	904	1,200
Claims and Fuel Losses	287	75	407	(31)
Ropes and Tarpaulins	36	322	161	1,268
Commission Payable	15	6	319	1
Insurance	1,620	3,313	4,643	5,659
Other Operations Exp.	1,350	1,770	1,764	21,666
Total operating expenditure	33,930	45,108	68,221	126,637
Operating Income/Loss	25,752	42,512	54,917	135,052
NON–OPERATING EXPENDITURE				
Depreciation	9,020	13,722	15,275	15,796
Administration	5,507	9,827	10,095	41,005
Interest	1,600	1,051	2,206	1,976
Auditors Fees	200	290	405	1,000
	16,327	24,890	27,981	62,777
Profit/Loss Before Tax	9,425	17,622	26,936	72,275
Tax	25	2,354	12,010	25,860
Net Profit/Loss	9,400	15,268	14,926	46,415
Return on Total Assets %	–	19	24	41
Rate of Return on Net Fixed Assets %	–	27	40	91

ZAMBIA
CONTRACT HAULAGE LIMITED
BALANCE SHEET
(thousand kwacha)

	1986/87	1987/88	1988/89	1989/90
FIXED ASSETS	70,210	73,601	81,974	205,822
CURRENT ASSETS:				
Stocks	8,879	17,780	34,425	48,690
Debtors	8,243	16,764	25,500	72,375
Funds on Deposit	3,157	7,835	8,684	7,100
Bank Balances and Cash	8,636	5,971	30,858	19,047
Total Current Assets	28,915	48,350	99,467	147,212
Total Assets	99,125	121,951	181,441	353,034
LIABILITIES AND OWNER'S EQUITY				
CURRENT LIABILITIES:				
Creditors	6,777	12,366	19,329	50,338
Short Term Liabilities	13,753	3,043	9,823	16,528
Tax Payable	25	2,354	12,474	26,332
Dividend Payable	500	1,000	3,000	10,000
Bank Overdraft	0	56	432	5,964
Total Current Liabilities	21,055	19,319	45,058	109,162
Long-Term Debt:	1,457	3,300	25,602	21,172
Total Long-Term Debt	1,457	3,300	25,602	21,172
Total Liabilities	22,512	22,619	70,660	130,334
EQUITY				
Share Capital	1,645	22,092	43,328	43,328
Amount Received Pending Allotment of Shares	35,055	21,912	676	1,471
Reserve	39,731	53,999	65,912	177,901
Total Equity	76,431	98,003	109,916	222,700
Grant	182	1,329	865	0
Total Liabilities and Equity	99,125	121,951	181,441	353,034
Current Ratio	1:1	3:1	2:1	1:1
Debt Equity Ratio	23:77	20:80	39:61	37:63

ZAMBIA
CONTRACT HAULAGE LIMITED
SOURCES AND APPLICATION OF FUNDS
(thousand kwacha)

	1986/87	1987/88	1988/89	1989/90
SOURCES OF FUNDS				
Generated from Operations:				
Profit Before Tax	9,425	17,622	26,923	72,195
Less:				
Profit on Sale of Fixed Asset	(2,294)	(3,874)	(2,530)	(4,847)
Depreciation	9,020	13,722	15,275	18,796
Defered Credit	(32)	(4,556)	(1,390)	(865)
Total Internal Funds	16,119	22,914	38,278	85,279
Funds from Other Sources:				
From Sale of Fixed Asset	3,434	8,140	3,987	9,263
Received Pending Allotment of Shares	14,605	7,304	0	795
Long-Term Debt	1,292	5,460	31,425	11,616
Grants	0	5,703	926	0
Total From Other Sources	19,331	26,607	36,338	21,674
Total Sources	35,450	49,521	74,616	106,953
APPLICATIONS OF FUNDS				
Purchase of Fixed Assets	31,336	21,379	25,105	69,982
Long-Term Debt	3,455	12,898	2,343	7,837
Tax	25	25	1,890	12,010
Dividends	0	500	1,000	3,000
	34,816	34,802	30,338	92,829
Increase/Decrease in Working Capital	634	14,719	44,278	14,124
Total Application of Funds	35,450	49,521	74,616	106,953

ZAMBIA
PUBLIC EXPENDITURE REVIEW
UNITED BUS COMPANY OF ZAMBIA LIMITED
STATISTICS

	1986/87	1987/88	1988/89	1989/90	1990/91
Turnover (K'000)	70,151	59,778	98,837	378,259	796,436
Profit/Loss Retained (K'000)	67,905	22,639	9,360	71,906	41,116
Net Assets (Deficit) (K'000)	(159,328)	68,686	261,128	347,208	353,647
SHARE CAPITAL					
Authorised (K'000)	16,000	400,000	400,000	400,000	400,000
Issued and Fully Paid Up ('000)	14,277	300,000	300,000	320,000	320,000
STAFF					
Zambian (NOs)	2,683	2,333	1,945	1,789	1,783
Non-Zambian (NOs)	59	44	17	19	22
Average Buses in Service (NOs)	143	91	96	167	149
Passengers Carried ('000)	22,342	13,529	20,000	19,400	14,785
Kilometres Covered ('000)	21,075	14,612	14,576	20,854	21,368
Litres of Diesel Consumed ('000)	7,696	5,895	5,163	7,094	7,576
Veh km/veh/day	404	440	416	342	393
Pass/veh/day	428	407	571	318	272
Staff/veh in service	19	26	20	11	12

ZAMBIA
PUBLIC EXPENDITURE REVIEW
UNITED BUS COMPANY OF ZAMBIA LIMITED
PROFIT AND LOSS ACCOUNT
('000 K)

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
REVENUES	70,151	59,776	98,837	378,259	799,436	836,258
EXPENDITURES						
Operating Expenditure						
Traffic	39,553	37,458	36,486	111,027	385,536	470,354
Workshop and Stores	20,386	19,315	23,918	49,240	121,198	124,834
Depreciation	10,547	11,588	16,286	57,586	74,897	112,912
	70,486	68,361	76,690	217,853	581,631	708,100
Total Operating Profit/Loss	(335)	(8,583)	22,147	160,406	214,805	128,158
Non Operating Expenditure						
Administration	11,523	13,962	19,333	48,031	99,754	121,700
Training	487	577	684	2,870	4,656	5,002
Interest & Other Finance Charges	29,926	8,714	2,840	23,085	47,955	70,244
Loss/Gain on Disposal of Fixed Assets	118	(25)	(9,097)	8,702	10,092	9,064
Loss on Exchange	25,109	(94)	(96)	463	4,348	
Loss on Write Off of Vechiles	(20)	1,316	(539)	0	0	0
Deferred Exchange Loss Written Off	0	8,097	0	0	0	
Depreciation	249	3,922	232	4,622	5,845	0
Zimcare Trust Contributions	0	0	0	727	839	0
Total Non Operating Expenditure	67,392	36,409	12,757	88,500	173,689	206,010
Profit/Loss Before Extra Ordinary Items	(67,727)	(45,082)	9,360	71,906	41,116	(77,852)
Government Taxes Written Back	0	22,443	0	0	0	0
Profit/Loss for the Year	(67,727)	(22,639)	9,360	71,906	41,116	(77,852)
Return on Total Assets %	-	(20)	13	30	19	(1)
Rate of Return on Net Fixed Assets %	-	(26)	26	54	27	(2)

ZAMBIA
PUBLIC EXPENDITURE REVIEW
UNITED BUS COMPANY OF ZAMBIA LIMITED
BALANCE SHEET
('000K)

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
FIXED ASSETS	54,043	43,659	175,603	334,532	423,008	648,647
CURRENT ASSETS						
Stocks & Goods in Transit	9,371	19,467	46,298	92,938	98,166	97,371
Debtors	3,778	5,221	46,856	26,406	30,524	41,813
Cash and Bank	2,259	22,115	44,009	26,939	34,090	87,578
Total Current Assets	15,408	46,803	137,163	146,285	162,780	226,761
Total Assets	69,451	90,462	312,966	480,817	585,788	875,408
LIABILITIES AND EQUITY						
Creditors	78,839	18,863	11,626	38,534	106,147	169,078
Bank Overdraft	22,519	1,099	1,663	13,433	36,742	40,416
Short Term Loan	134,997	1,614	38,525	92,504	103,826	119,399
Equity Levy	1,076	0	0	0	0	0
Deferred Expenditure	(6,657)	0	28	(10,862)	(14,574)	0
Total Current Liabilities	226,774	21,776	51,842	133,609	232,141	328,893
Long Term Loan	24,734	5,799	103,591	116,818	82,141	352,861
Total Liabilities	253,508	27,575	155,433	250,427	314,282	681,754
EQUITY						
Share Capital	14,277	300,000	300,000	320,000	320,000	320,000
Amount Received Pending Allotment of Shares	16,135	0	20,000	0	0	0
Deficit on Reserves	(214,474)	(237,1[illegible])	(162,465)	(89,610)	(48,494)	(126,346)
Total Equity	(184,062)	62,887	157,535	230,390	271,506	193,654
Total Liabilities and Equity	69,446	90,462	312,968	480,817	585,788	875,408
Current Ratio	0.07 :1	2.15 :1	2.65 :1	1.09 :1	0.70 :1	
Debt Equity Ratio (%)		30:70	50:50	52:48	54:46	
	-2.65:3.65					

ZAMBIA
PUBLIC EXPENDITURE REVIEW
UNITED BUS COMPANY OF ZAMBIA LIMITED
SOURCES AND APPLICATION OF FUNDS
('000K)

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
SOURCES OF FUNDS						
Internal Source						
Profit/Loss for the Year	(67,727)	(22,639)	9,360	71,906	41,116	(77,852)
Add:						
Depreciation	10,796	15,510	16,772	62,207	80,742	112,912
Loss/Gain on Disposal of Fixed Assets	116	1,389	(9,697)	8,702	10,092	
Deferred Expenditure Written Off	556	560	0	1,656	7,505	0
Unrealised Exchange Loss Written Off	26,762	8,032	0	0	0	0
Exchange Loss Deferred	0	0	0	(12,548)	(11,217)	0
Total Internal Source	(29,493)	2,852	16,435	131,923	128,238	35,060
OTHER SOURCES						
Loans Received	0	6,821	135,416	110,547	0	252,720
Difference on Restatment of Foreign Currency Denominated Loans	9,100	0	0	0	0	0
Sale of Fixed Assets	1,075	65	10,649	1,305	355	0
Equity Received	564	269,588	20,000	0	0	0
Exchange Gain/Loss	0	0	0	8,434	13,651	0
Total Other Source	10,739	276,474	166,065	120,286	14,006	252,720
Total Source	(18,754)	279,326	182,500	252,209	142,244	35,060
APPLICATION OF FUNDS						
Additions to Fixed Assets	13,768	6,115	84,580	229,993	179,665	267,749
Loan Repaid	1,087	300	915	51,774	37,006	116,640
Subtotal	14,855	6,415	85,495	281,767	216,671	384,389
Increase/Decrease in WC	(33,610)	272,511	97,005	(28,840)	(74,427)	(289,710)
Total Application	(18,955)	278,926	182,500	252,927	142,244	94,679

ZAMBIA
NATIONAL AIRPORT CORPORATION LIMITED
PROFIT AND LOSS ACCOUNT
(thousand kwacha)

	1989/90	1990/91
REVENUES		
Parking Fees	1,344	9,673
Landing Fees	27,283	77,779
Navigation Fees	19,366	14,300
Departure Fees	28,362	89,663
Car Park Fees	110	39,053
Refulling	1,021	8,725
Total Operating Revenue	77,486	239,193
Add: Interest Income	1,466	3,818
Total Profit	78,952	243,011
EXPENDITURES		
Operating Expenditure	17,005	87,468
Administration Expenditure	12,135	48,788
Commercial Expenditure	9,978	8,710
Financial Charges	160	160
Depreciation	18,202	34,875
Total Expenditure	57,480	180,001
Profit Before Tax	21,472	63,010
Tax	300	11,990
Net Profit	21,172	51,020
Return on Total Assets %	–	5
Rate of Return on Net Fixed Assets %	–	5

ZAMBIA
NATIONAL AIRPORT CORPORATION LIMITED
BALANCE SHEET
(thousand kwacha)

	1989/90	1990/91
FIXED ASSETS	1,148,970	1,193,919
INVESTMENT	0	500
CURRENT ASSETS		
Stocks	682	24,213
Debtors	55,203	86,699
Bank Overdraft	22,428	8,768
Total Current Assets	78,313	119,680
Total Assets	1,227,283	1,314,099
LIABILITIES		
Current Liabilities		
Creditors	7,603	32,318
Bank Overdraft	3,719	3,127
Tax	300	12,290
Proposed Dividend	0	15,396
Total Current Liabilities	11,622	63,131
Long Term Debt		
Liability on Acquisition	1,174,312	1,174,791
Deferred Liability	175	505
Total Debt	1,186,109	1,238,427
EQUITY		
Share Capital	20,000	20,000
Retained Profits	21,174	55,672
Total Liabilities and Equity	1,227,283	1,314,099
Current Ratio	7	2
Debt Equity Ratio	97:3	94:6

ZAMBIA
NATIONAL AIRPORT CORPORATION LIMITED
SOURCE AND APPLICATION OF FUNDS
(thousand kwacha)

	1989/90	1990/91
SOURCES OF FUNDS		
Income before tax	21,474	61,884
Add:		
Deferred liability	175	330
Depreciation	18,201	34,875
Loss/Gain on sale of FA	0	134
Assets written off	0	11
Subtotal	18,376	35,350
Total internal source	39,850	97,234
OTHER SOURCES		
Share capital	20,000	0
Funds on acquisition of assets from GRZ	28,312	479
Proceeds from sale of FA	0	1,393
Total other source	48,312	1,872
Total source	88,162	99,106
APPLICATION OF FUNDS		
Purchase of fixed assets	21,171	81,362
Investment	0	500
Subtotal	21,171	81,862
Increase/decrease in working capital	66,991	17,244
Total Application	88,162	99,106